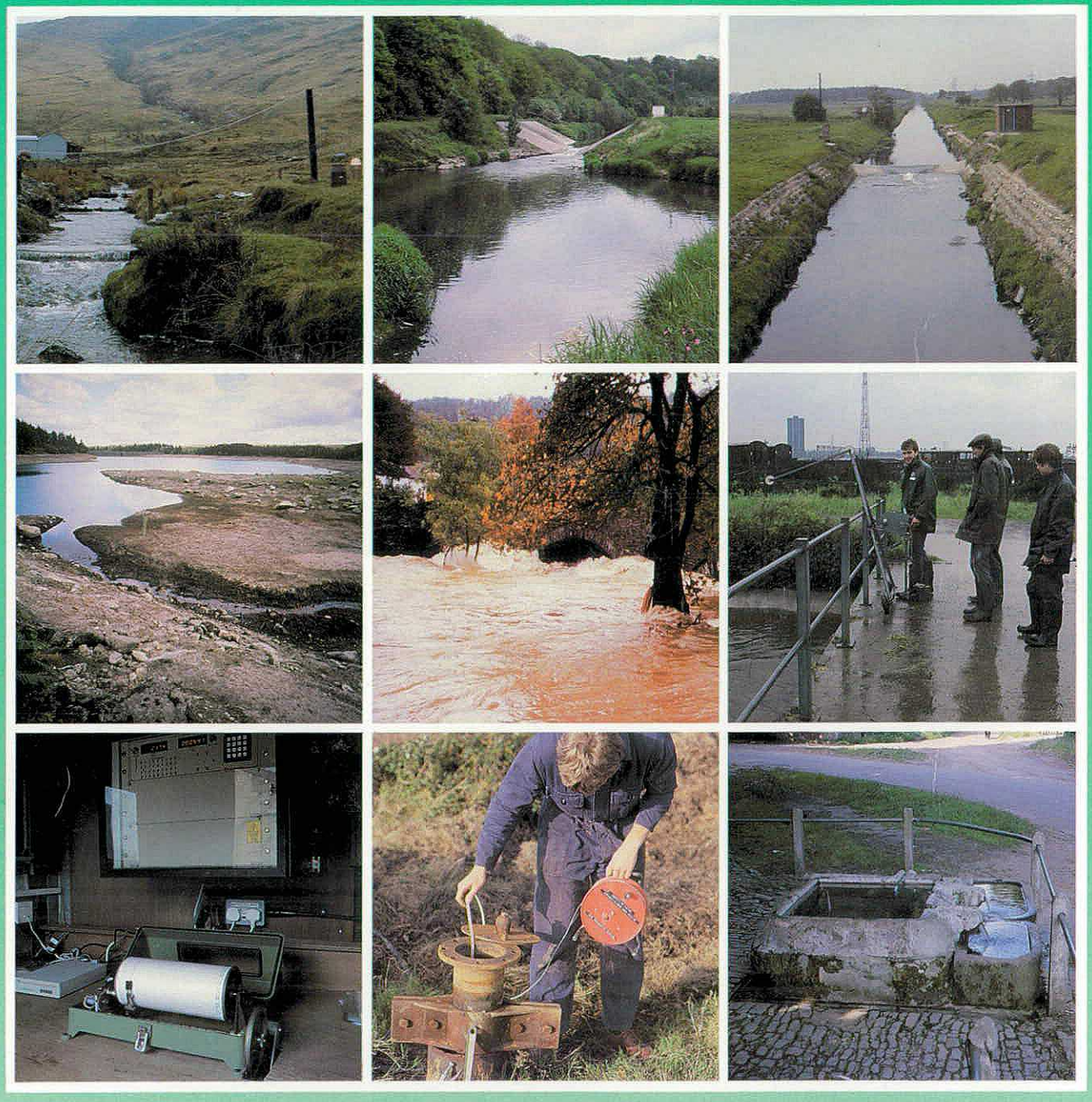
Hydrological data UK



Hydrometric Register and Statistics 1986-90

INSTITUTE OF HYDROLOGY • BRITISH GEOLOGICAL SURVEY

HYDROLOGICAL DATA
UNITED KINGDOM

HYDROMETRIC REGISTER
AND
STATISTICS
1986–90

Published by the Institute of Hydrology,
Wallingford, Oxon OX10 8BB

ISBN 0 948540 44 3

Editors : T J Marsh and M L Lees
Assistant Editor : S J Bryant

The acquisition, archiving and validation of the bulk of the hydrological data featured in this publication is undertaken as part of the National Water Archive project at the Institute of Hydrology. Liaison with the measuring authorities (see page 7) is undertaken by a team of regional representatives. In addition to the editorial staff, this team currently includes:-

N W Arnell, A R Black, D B Boorman, J M Dixon, I G Littlewood, S C Loader and D G Morris.

The style and contents of the Hydrometric Register and Statistics 1986-90 volume, and the scope of the data retrieval service which complements it, reflects a decade of archive system development supervised initially by D G Morris and latterly by R E Mac Ruairi. R W Flavin updated and refined the software used to produce the statistical tables which constitute the bulk of this report.

The British Geological Survey is responsible for the acquisition, appraisal and archiving of the featured hydrogeological information. R A Monkhouse is the Groundwater Level Archive manager and P Doorgakant is responsible for data archiving and the associated liaison with the measuring authorities.

S Black was responsible for the preparation of the text and supervises the sale and distribution of the Hydrological data UK publications through the National Water Archive Office at the Institute of Hydrology.

Graphics: J J Carr

Typeset and printed in the United Kingdom by Burgess.

The materials used in the production of this volume are made from the pulp of softwood trees in managed Scandinavian forests in which every tree cut down is replaced by at least one more, thus replacing the Earth's resources.

FOREWORD

The Hydrological data UK series of Yearbooks and reports was launched in 1985 as a joint venture by the Institute of Hydrology (IH) and the British Geological Survey (BGS); both organisations are component bodies of the Natural Environment Research Council (NERC). Such a collaborative enterprise arose naturally from the close liaison maintained between those responsible for the management of the national River Flow Archive at IH and their counterparts at BGS concerned with the national Groundwater Level Archive. This collaboration was reinforced in 1992 by the inclusion of both archives as core datasets in the newly created National Water Archive, the latest of the NERC's Designated Data Centres. A major objective of these Centres is to increase the use and utility of basic archived data.

The Hydrological data UK series includes an annual yearbook and, every five years, a catalogue of river flow gauging stations and groundwater level recording sites together with statistical summaries; the Hydrometric Register and Statistics 1986–90 is the second such publication. Further details of the availability of publications in the Hydrological data UK series are given on page [illegible]

The last few years have been remarkable in hydrological terms throughout much of the United Kingdom. Persistently high runoff rates have characterised much of Scotland whilst an extremely protracted drought in the English lowlands has underlined our continuing vulnerability to exceptional climate patterns. One consequence has been an unprecedented level of usage of the River Flow and Groundwater Level Archives. However, flows and groundwater levels reflect more than just the incidence of rainfall and the magnitude of evaporation losses. Catchment geology and land use also influence river runoff and aquifer recharge and the natural variations of each are often substantially disturbed by a complex and evolving pattern of water utilisation. Consequently, a considerable range of ancillary information is commonly required to exploit basic hydrological data fully. The objective of this publication is to document resource variations and to serve both as a reference source to the data sets available and as an essential guide to aid the interpretation of analyses based on the data.

The work of the national River Flow and Groundwater Level Archives is overseen by a steering committee which includes representatives of Government departments, the National Rivers Authority and the water industry from England, Wales, Scotland and Northern Ireland.

Professor W. B. Wilkinson
Director, Institute of Hydrology


NA
NB
NC
ND
NF
NG
NH
NJ
HIGHLAND R.P.B.
NORTH EAST R.P.B.
NL
NM
NN
TAY R.P.B.
NO
CLYDE R.P.B.
FORTH R.P.B.
NR
NS
NT
NU
TWEED R.P.B.
IB
IC
SOLWAY R.P.B.
NX
NY
NZ
OV
NORTHERN IRELAND
IF
IG
IH
NORTH WEST N.R.A.
NORTHUMBRIA/ YORKSHIRE N.R.A.
SC
SD
SE
TA
IL
IM
IN
SH
SJ
SK
TF
TG
IQ
IR
IS
SEVERN-TRENT N.R.A.
ANGLIAN N.R.A.
SM
SN
SO
SP
TL
TM
WELSH N.R.A.
IW
THAMES N.R.A.
SR
SS
ST
SU
TQ
TR
WESSEX N.R.A.
SOUTHERN N.R.A.
SOUTH WEST N.R.A.
SW
SX
SY
SZ
TV
SO Letters designating 100km squares in the National Grid
National Rivers Authority region or River Purification Board boundary

CONTENTS

INTRODUCTION

The Hydrometric Register and Statistics 1986–90 is the second such five-year volume in the Hydrological data UK series. It is both a companion publication to the individual yearbooks in the Hydrological data UK series, providing comprehensive hydrometric data relating to the featured period, and a reference source for hydrometric information which does not change materially from year to year and, thus, does not merit annual publication.

The summary statistical data are provided to allow an examination to be made of the variation in surface and groundwater resources both within the period 1986–90 and by comparison with the long term average conditions. Details of the gauging stations, the catchments they command and observation wells in the national networks are presented both to assist in the interpretation of the statistical data and to help data users in the selection of appropriate hydrometric data sets for their particular application or area of interest. Information in the Surface Water Register and Statistics section is grouped according to the major administrative divisions in the UK – see Frontispiece. In all, details are given of around 1300 gauging stations and 160 observation wells.

A description is given of the River Flow and Groundwater Level Archives together with the retrieval facilities which complement the data published in the Hydrological data UK series.

The constraints of space have required a number of abbreviations and acronyms to be used, particularly in the descriptive material in the Surface Water section. These, together with selected technical terms, are defined in the Glossary (see page 187).

Sources of Information

The hydrometric data presented in this volume have been abstracted primarily from the national River Flow and national Groundwater Level archives. In England and Wales responsibility for the collection and initial processing of the data now rests principally with the National Rivers Authority. Prior to the enactment of the Water Act 1989, the ten regional Water Authorities undertook most hydrometric activities and, following reorganisation, the Water Services Companies retained responsibility for a number of important long records. In Scotland, the acquisition and processing of hydrometric data rests principally with the seven River Purification Boards (RPBs) and in Northern Ireland responsibility is shared between the Departments of Agriculture and the Environment (NI). Additional data has been provided by the Geological Survey of Northern Ireland, the Borders Regional Council, Water Supply Companies and by various research bodies and public undertakings.

River flows in the United Kingdom are often difficult to measure precisely – particularly in flood or drought conditions – and can be substantially affected by artificial influences. These influences can range from a large diminution in flows caused by a major abstraction immediately upstream of the gauging station to the often subtle impact of land use change on river flow patterns. An appreciation of these effects is necessary to exploit the archived data most effectively. The NRA (and the precursor regional Water Authorities), RPB's and DoE (NI) supplied and checked important material relating to the changing pattern of water utilisation in individual catchments and the hydrometric characteristics of the river flow measurement stations.

Apart from the figures for the Institute of Hydrology's own experimental basins, the majority of the areal rainfall data presented in this volume is derived from individual raingauge data provided by the Meteorological Office. A proportion of the Northern Ireland catchment rainfall data was supplied by the Department of the Environment (NI).

Some slight variations from contributors' figures may occur; these may be due to different methods of computation or the need for uniformity in presentation.

The Natural Environment Research Council acknowledge and extend their appreciation to all who have assisted in the collection and provision of information for this publication; the community at large gains considerably from the efforts of those who take the initial field observations and those who process them in hydrometric offices.

SURFACE WATER - REGISTER AND STATISTICS

The Acquisition, Computation and Accuracy of Gauged Flows

Gauged flows are generally calculated by the conversion of the record of stage, or water level, using a stage-discharge relation, often referred to as the rating or calibration. Stage is measured and recorded against time by instruments usually actuated by a float in a stilling well. The instrument records the level either digitally, on a solid state logger, less commonly on punched tape, or continuously by pen and chart. At the majority of the gauging stations in the United Kingdom provision is made for the routine transmission of river levels directly to the processing centre, by telephone line or, less generally, by radio; on occasions satellites have been used to receive and re-transmit the radio signal. The rapid growth in the use of the public telephone network for the transmission of river level and flow data is enabling hydrometric data acquisition to proceed on a near real-time basis in most areas. Typically, the levels are recorded at 15-minute intervals and stored on-site for over-night transmission to allow the initial processing to be completed on the following day. Normally, both digital and analogue recording devices are deployed at gauging stations to provide a measure of security against loss of record caused by instrument malfunction.

The stage-discharge relation is obtained either by installing a gauging structure, usually a weir or flume with known hydraulic characteristics, or by measuring the stream velocity and cross-sectional area at points throughout the range of flow at a site characterised by its ability to maintain the relationship.

The accuracy of the processed gauged flows therefore depends upon several factors:

i. accuracy and reliability in measuring and recording water levels,
ii. accuracy and reliability of the derived stage-discharge relation, and
iii. concurrency of revised ratings and the stage record with respect to changes in the station control.

Flow data from ultrasonic gauging stations are computed on-site where the times are measured for acoustic pulses to traverse a river section along an oblique path in both directions. The mean river velocity is related to the difference in the two timings and the flow is then assessed using the river's cross-sectional area. Accurate computed flows can be expected for stable river sections and within a range in stage that permits good estimates of mean channel velocity to be derived from a velocity traverse set at a series of fixed depths.

Flow data from electromagnetic gauging stations may also be computed on-site. The technique requires the measurement of the electromotive force (emf) induced in flowing water as it cuts a vertical magnetic field generated by means of a large coil buried beneath the river bed or constructed above it. This emf is sensed by electrodes at each side of the river and is directly proportional to the average velocity in the cross-section.

An important secondary objective of the Hydrometric Register and Statistics volumes is to expose summary hydrometric statistics to wider scrutiny and analysis. By this means a number of anomalous data values may be expected to be identified and then subjected to a critical review. Enquiries concerning the data featured in this publication are welcomed and should be directed to the National Water Archive Office (see page 186).

British and International Standards are followed as far as possible in the design, installation and operation of gauging stations. Most of these Standards include a section devoted to accuracy, which results in recommendations for reducing uncertainties in discharge measurements and for estimating the extent of the uncertainties which do arise.

The national River Flow Archive exists to provide not only a central database and retrieval service but also an extra level of hydrological validation. To further this aim, project staff at the Institute of Hydrology liaise with their counterparts in the water industry on a regional basis and, by visiting gauging stations and data processing centres, endeavour to maintain the necessary knowledge of local conditions and problems which is essential to help identify and rectify anomalous flow data.

Scope of the Register and the Statistical Tabulations

Hydrometric and hydrological information is presented for National River Authority regions, River Purification Board areas and for Northern Ireland. Included in each geographical section are details of those few gauging stations operated by other organisations; usually Water Services Companies, academic or research institutes or other public undertakings. For each of the primary measuring authorities, or pair of measuring authorities, data are presented in four parts:

i. A gauging station location map; the scale varies between maps in order to make the most effective use of the available space. To improve clarity, a few stations are shown slightly displaced from their true national grid loca-

tion; this is a cartographic necessity in those localities where the river or gauging station network is particularly dense. 100 km grid squares are identified both by letter codes or numeric superscripts in the map corners.

Data users are advised to consult the appropriate gauging station register (see below) to check whether individual stations are still operational.

ii. A gauging station register. Stations are normally tabulated in groups of ten; additional breaks are provided to separate the station details relating to individual RPB areas where two are featured together.

For ease of cross referencing, the gauging station maps and the associated register are presented on opposite pages.

iii. A tabulation of hydrometric statistics together with reference information relating to the gauging station, its flow record and the catchment it commands.

iv. A summary of the river flow and catchment rainfall data held on the River Flow Archive.

The following explanatory notes are provided to assist in the interpretation of particular items in the tabular material.

THE GAUGING STATION REGISTER

Flow measurement stations are featured in the Register when they have at least two complete years of river flow data held on the River Flow Archive up to and including 1990. The organisation with operational responsibility for each gauging station is given in the Hydrometric Statistics section (see page 7).

For the minority of stations which appear in the Gauging Station Register, or on the maps, but which are not featured in the Hydrometric Statistics section, reference should be made to the Yearbooks in the Hydrological data UK series for details of the relevant measuring authority.

Station Number

The gauging station number is a unique six digit reference number which serves as the primary identifier of the station record on the River Flow Archive. The first digit is a regional identifier being 0 for mainland Britain, 1 for the islands around Britain and 2 for Ireland. This is followed by the hydrometric area number given in the second and third digits. Hydrometric areas are either integral river catchments having one or more outlets to the sea or tidal estuary, or, for convenience, they may include several contiguous river catchments having topographical similarity with separate tidal outlets. In mainland Britain they are numbered from 1 to 97 in clockwise order around the coast commencing in north-east Scotland. Ireland has a unified numbering system from 1 to 40 commencing with the River Foyle catchment and circulating clockwise; not all Irish hydrometric areas, however, have an outlet to the coast. The numbers and boundaries of the United Kingdom hydrometric areas are shown on the gauging station location maps.

An asterisk following the station number identifies those gauging stations known to have been closed prior to 1991 or for which no data has been submitted to the national archive for the post-1985 period.

River Name / Station Name

The river and station name assigned by the appropriate measuring authority. Space constraints require that abbreviations be used for a number of gauging stations; for the majority of monitoring sites the full river and station names are given in the table of Hydrometric Statistics.

Grid Reference

Standard two-letter and six figure map reference using the National Grid in Great Britain and the Irish Grid in Northern Ireland. (The Irish Grid has only one prefix letter but it is common practice to precede it with the letter I to make identification clear.)

Catchment Area

The surface catchment area, projected onto a horizontal plane, draining to the gauging station in square kilometres. The quoted areas derive from a variety of sources and are not of uniform precision. Delineation of catchment boundaries can be especially difficult in areas of very subdued relief. Errors in the assessment of the areas of small catchments can substantially affect runoff values. There are a considerable number of gauging stations where, because of geological considerations, or as a result of water transfers (for instance, the use of catchwaters to increase reservoir yield), the actual contributing area may differ appreciably from that defined by the topographical boundary. In consequence, the river flows, whether augmented or diminished, may cause the runoff values (as a depth in millimetres) to appear anomalous.

Station Type

The station type is coded by the list of abbreviations given below – two abbreviations may be applied to

each station relating to the measurement of low or high flows.

B	Broad-crested weir
C	Crump (triangular profile*) single-crest weir
CB	Compound broad-crested weir. The compounding may include a mixture of types such as rectangular profiles, flumes and Flat Vs and with or without divide walls
CC	Compound Crump weir
EM	Electromagnetic gauging station
EW	Essex weir (single Crump weir modified with angled, sloping, triangular profile flanking crests) in trapezoidal channel
FL	Flume
FV	Flat V (triangular profile*) weir (variety of cross slopes 1:10-1:40)
MIS	Miscellaneous
TP	Rectangular thin-plate weir
US	Ultrasonic gauging station
VA	Velocity-area gauging station (includes: natural section; open channel; river section; rated section)
VN	Triangular (V-notch) thin-plate weir

Period of Record

The first and – if the station is closed – last year for which daily river flow data are held on the River Flow Archive. Where the flow record is sensibly continuous (fewer than six missing days occurring in any one year) the first and last years are separated by a dash; otherwise dots are substituted. A detailed breakdown of the data available for each gauging station is given in the Summary of Archived Data (see below). Earlier data, often of a sporadic nature or of poorer quality, may occasionally be available from the measuring authority or other sources (see the corresponding station 'Comment'). Areal rainfall data and, particularly, peak monthly flows may not be available for the full period of record (POR).

Emboldening

Where the pre-1986 period of record equals, or exceeds, five complete years, emboldening is used to highlight new maximum and minimum values for selected statistical items occurring during the period 1986-90; the statistical items concerned are identified by an asterisk following the item title in the explanatory notes.

* These structures conventionally have 1:2 upstream and 1:5 downstream slopes although other longitudinal profiles can be found. For normal field installations laboratory-based stage-discharge relations are generally used, at least in the low and medium flow ranges.

Mean Annual Rainfall

The average annual rainfall over the catchment in millimetres. Normally the mean relates to the period of record given in the previous columns (rainfall data preceding the start of the corresponding river flow record are ignored); the mean rainfall is shown in italics where monthly catchment rainfall totals are available for less than 80 per cent of the corresponding runoff record.

From January 1986 monthly areal rainfall totals have generally been derived from a one kilometre square grid of rainfall values generated from all daily and monthly rainfall data available from The Meteorological Office. Validation procedures allow for the rejection of obviously erroneous raingauge observations prior to the gridding exercise. A computer program then calculates catchment rainfall by averaging the values (either in millimetres or as percentages) at the grid points lying within the digitised catchment boundary. Up to and including 1985, monthly catchment areal rainfall totals were normally derived by first obtaining the long period (1941-70) average annual rainfall for each catchment – this was obtained from The Meteorological Office and is based on isohyets mapped at a scale of 1:250,000. Then, for each of a selected number of raingauges chosen to represent the catchment, the monthly rainfall was expressed as a percentage of its annual average rainfall. The percentage values of rainfall for each raingauge were summed and their mean obtained to give a catchment percentage value for the month, which was then converted to monthly mean rainfall.

The mean annual rainfall is computed from the monthly mean rainfalls using data only for years where the rainfall record is complete. Accuracy depends largely on the reliability of the assessment of the areal annual average and on the adequacy of the network of raingauges used to represent an area. Where, as for instance in some mountainous catchments, raingauges are few and their siting and exposure is not ideal, great precision in the areal rainfall assessments cannot be expected; under such circumstances rainfall can often be significantly underestimated.

Mean Annual Runoff

The notional depth of water in millimetres over the catchment equivalent to the mean annual flow as measured at the gauging station. It is computed using the relationship:

$$\text{Runoff in mm} = \frac{\text{Mean Flow in cubic metres per second} \times 86.4 \times 365}{\text{Catchment Area (km}^2\text{)}}$$

The total runoff is rounded to the nearest millimetre.

As a consequence of missing data there will not be full equivalence between the mean annual rainfall and the mean annual runoff for some catchments. Runoff statistics and the corresponding mean flow are computed on the basis of naturalised flows for the minority of catchments where sensibly continuous daily, or monthly, naturalised data are held on the River Flow Archive – an 'n' following the period of record identifies these catchments. Naturalised flows are derived from the corresponding gauged discharges by taking account of the net affect of upstream abstractions and discharges. The uncertainty in the magnitude of the necessary adjustment may be considerably greater than the uncertainty associated with the gauged flow.

Guidance as to how representative the mean annual runoff is of the natural flow regime may be found in the Factors Affecting Runoff (F.A.R.) codes (see page 7) and the 'Comment' section in the Table of Hydrometric Statistics (see page 8).

Mean Annual Loss

The difference between the mean annual catchment rainfall and the mean annual catchment runoff. Entries are confined to catchments where there is good agreement between the periods for which rainfall and runoff are held on the National River Flow Archive. For those few catchments where computed mean runoff exceeds computed mean rainfall no mean annual loss is given.

The mean annual loss provides a guide to average annual evaporative losses but limited precision in the rainfall and runoff figures together with the net effect of artificial influences on the runoff total may all combine to produce unrepresentative mean losses. For example, in upland catchments the raingauge network may fail to sample the wettest areas of the catchment leading to an underestimation of the mean loss. Even in well monitored natural catchments a lack of coincidence between the topographical catchment divide and the true extent of the contributing area (which may be substantially different for permeable catchments) can produce seemingly anomalous mean annual losses. The F.A.R. codes and the 'Comment' section in the Table of Hydrometric Statistics should be consulted to assess the credibility of the mean annual loss.

Maximum Annual Runoff / Year of Occurrence *

The maximum calendar year runoff in the period of record. The selection is based only on those years with complete flow records on the River Flow Archive.

Minimum Annual Runoff / Year of Occurrence *

The minimum calendar year runoff in the period of record. The selection is based only on those years with complete flow records on the River Flow Archive.

Mean Flow

The average, weighted to account for the different number of days per month, of the mean monthly flows for the period of record.

Minimum Monthly Flow / Month and Year of Occurrence

The minimum monthly mean flow in the period of record. Minimum monthly flows greater than zero but less than 0.005 m^3s^{-1} will appear as '>0.0'. It should be emphasised that river flow measurement tends to become more imprecise at very low discharges. Very low velocities, heavy weed growth and the insensitivity of stage-discharge relations combine with the difficulty of accurately measuring limited water depths to increase the uncertainty associated with the computed flows.

Mean Annual Flood

The mean of the annual peak discharges in the period of record. Apart from a few cases where data provided by the measuring authorities have been preferred, the Mean Annual Flood (MAF) has been computed using a data set compiled originally as part of the Flood Studies Project. This data set has been updated at intervals[1]. Mean Annual Floods have been computed only when at least five water-year (October-September) peaks have been recorded. For a few stations (indicated by an asterisk following the MAF value) instantaneous flow values are not recorded by the measuring authorities and the MAF has been determined on the basis of the highest daily mean flows. The Mean Annual Flood has been omitted for some stations where catchment changes – normally the construction of a major reservoir – make the computed MAF unrepresentative of current conditions.

Accurate high flow measurement can present severe logistical and hydrometric problems and flood discharges may often be based on substantial extrapolations of the stage-discharge relation. The precision may vary greatly from station to station; some relevant additional information may be found in the station 'Comment' section.

10 Percentile

The flow in cubic metres per second which was equalled or exceeded for 10 per cent of the specified

term – a high flow parameter which, when compared with the mean may give a measure of the variability, or 'flashiness', of the flow regime. The 10 percentile is computed using daily flow data only for those years with five days, or less, missing on the River Flow Archive.

95 Percentile

The flow in cubic metres per second which was equalled or exceeded for 95 per cent of the specified term; a significant low flow parameter relevant in, for example, the assessment of river water quality consent conditions. The same conditions for completeness of the annual records apply as for the 10 percentile flow. Ninety-five percentile flows greater than zero but less than 0.005 m^3s^{-1} will appear as '>0.0'.

The reliability of the 95 percentile flows, as with the minimum monthly mean, must be considered carefully as representative measures of low flow. The values must be used with caution in view of the problems associated with, first, the measurement of very low discharges and, secondly, the increasing proportional variability between the natural flow and the artificial influences, such as abstractions, discharges, and storage changes as the river flow diminishes.

HYDROMETRIC STATISTICS

Flow measurement stations are, generally, featured in this section where at least three complete years of data are available on the River Flow Archive over the period 1986–90. Some stations which appear in the Gauging Station Register have been omitted from this section. Normally this is because of the poor quality of the hydrometric data or because the decommissioning of the station, of the limited value to the national network of a particular gauging site; e.g. a gauging station immediately below a reservoir.

Certain key reference details are repeated from the Register of Gauging Stations.

Catchment Area – C.A. See page 4.

Measuring Authority – M.A.

An abbreviation referencing the organisation responsible for the operation of the gauging station. A list of measuring authority codes together with the full name and address of the organisation is given in the Directory of Measuring Authorities (page 184).

Level

The level of the station; generally, the level of the gauge zero (rounded to the nearest metre) above Ordnance Datum, or above Malin Head Datum for stations in Northern Ireland. Although gauge zero is usually closely related to zero discharge, it is the practice in some areas for an arbitrary height, typically one metre, to be added to the level of the lowest crest of a measuring structure to avoid the possibility of false recording of negative values by some digital recorders.

Factors Affecting Runoff – F.A.R.

An indication of the various types of abstractions from, and discharges to, the river operating within the catchment which alter the natural flow is given by a standard set of code letters. For some areas the allocation of F.A.R. codes is incomplete and for all catchments the codes are subject to continuing review. An explanation of the code letters is given below. With the exception of the induced loss in surface flow resulting from underlying groundwater abstraction, these codes and descriptions refer to quantifiable variations and do not include the progressive, and difficult to measure, modifications in the regime related to land use changes.

Except for a small set of gauging stations for which the net variation, i.e. the sum of abstractions and discharges, is assessed in order to derive the 'naturalised' flow from the gauged flow (see page 6), the record of individual abstractions, discharges and changes in storage as indicated in the code above is not held centrally.

CODE EXPLANATION

N Natural, i.e. there are no abstractions and discharges or the variation due to them is so limited that the gauged flow is considered to be within 10% of the natural flow at, or in excess of, the 95 percentile flow.

S Storage or impounding reservoir. Natural river flows will be affected by water stored in a reservoir situated in, and supplied from, the catchment above the gauging station.

Regulated river. Under certain flow conditions the river will be augmented from surface water and/or groundwater storage upstream of the gauging station.

r Public water supplies. Natural river flows are reduced by the quantity abstracted from a reservoir or by a river intake if the water is conveyed outside the gauging station's catchment area.

' Groundwater abstraction. Natural river flow may be reduced or augmented by groundwater abstraction or recharge. This category includes catchments where mine-water discharges influence the flow regime.

Effluent return. Outflows from sewage treatment works will augment the river flow if the effluents originate from outside the catchment.

Industrial and agricultural abstractions. Direct industrial and agricultural abstractions from surface water and from groundwater may reduce the natural river flow.

Hydro-electric power. The river flow is regulated to suit the need for power generation; catchment to catchment diversions may also significantly affect average runoff.

Local Number

The station reference number adopted by the measuring authority. In some authorities the local number is identical to the Institute of Hydrology's station number.

Base Flow Index

The Base Flow Index (BFI) was developed at the Institute of Hydrology (IH) during the Low Flow Study to help assess the low flow characteristics of rivers in the United Kingdom. In this volume it has been computed using the archived record of gauged daily mean flows and may be thought of as a measure of the proportion of the river runoff that derives from stored sources; the more permeable the rock, drift and soil material of a catchment the higher the baseflow and the more sustained the river's flow during periods of dry weather. Thus, the BFI is an effective means of indexing catchment geology. Rivers draining impervious clay catchments (with minimal lake or reservoir storage), for instance, typically have baseflow indices in the range 0.15 to 0.35, whereas a Chalk stream may well have a BFI greater than 0.9 as a consequence of the high groundwater component in the river discharge. Details of the procedures used to compute the BFI are given in: *Low River Flows in the United Kingdom*, Institute of Hydrology Report No. 108.

B-full (Bankfull) / S-full (Structurefull)

The flow in cubic metres per second at which the river begins to overlap the banks, or the wingwalls of a structure, at a gauging station. The discharges have been obtained from stage-discharge relations and since they are at the upper limit of the in-bank flow they may be derived by extrapolation. At a few weirs and flumes, the upstream channel capacity may be less than the capacity of the structure. Under such circumstances bypassing will commence before structurefull is reached.

This item may be omitted where the bankfull and structurefull discharges are unreliable.

Sensitivity

The percentage change in flow associated with a 10 mm increase in stage at the 95% exceedance flow. Details of the method of derivation are given in IH Report No. 108 and the great majority of the sensitivity values featured in the Hydrometric Statistics section were computed as part of the ongoing Low Flows Study programme.

The limited depth of many UK rivers, especially during periods of low flow places a premium on the accurate measurement of water levels. Systematic errors in the measurement of stage – resulting, for instance, from imprecise datum settings, algal growth on weir crests or ice on natural controls – are the major factors influencing discharge uncertainty. The sensitivity index provides a guide to the susceptibility of low flow measurement at individual stations to errors arising from imprecise stage measurement.

Comment

A short commentary providing a guide to the characteristics of the station, its flow record and the catchment it commands; the catchment description is normally separated from the rest of the material by a '#' symbol. The objectives of this summary information are to assist data users in the selection of gauging station records appropriate to their needs and to assist in the interpretation of flow data for individual gauging stations particularly where the natural flow pattern is significantly disturbed by artificial influences.

The 'Comment' will be updated and revised to reflect the availability of more information and in response to changing hydrometric conditions at the measuring site and changing water use and land use within the catchment.

Reference to the Glossary should be made for an explanation of technical terms, abbreviations and acronyms used in the Comment section.

1986–90 Hydrometric Statistics

Hydrometric statistics are presented both for the period of record, up to and including 1985* and for each calendar year 1986 to 1990; rainfall and runoff data for individual years are featured only where a sensibly complete annual record is held on the River Flow Archive. When comparing period of record values with those given in the Gauging Station Register it should be noted that the figures given in the latter table relate to the full period of record up to and including 1990. This allows the impact of the 1986–90 rainfall and runoff patterns on the long term averages to be examined. The same conditions

* Underlining is used to identify those flow records commencing before 1900.

for completeness (for the inclusion of a particular year in the analysis) apply as in the corresponding entries in the Gauging Station Register.

Emboldening

The period of record statistics are shown emboldened where they are based on five, or more, complete years of data. Emboldening is also used to highlight certain data items where new maximum or minimum values have been established over the period 1986–90; the items concerned are identified by an asterisk following the heading in the explanatory notes.

Rainfall

The rainfall over the catchment for each year and for the period of record (see page 5 for the method of derivation and the reason for italicised entries). '% Pre-1986' expresses the individual yearly totals as a percentage of the period of record average.

Runoff

The catchment runoff for each year and for the period of record. '% Pre-1986' expresses the individual yearly totals as a percentage of the period of record average. In the 1986–90 statistical tabulations gauged flows have been used, exclusively, to compute runoff totals. For a few gauging stations – those where runoff has been computed using naturalised data in the Gauging Station Register – a guide to the net impact of artificial influences on the average annual runoff may be estimated by comparing the corresponding mean runoff figures given in the Register and in the tabulation of Hydrometric Statistics.

Mean Flow

The POR mean flow is based on all available pre-1986 daily mean gauged flows; for the method of computation (see page 6). The annual mean flows are derived from the complete daily record for each year.

*Peak Flow / Date of Peak**

The peak flow in cubic metres per second during the term indicated together with the date of occurrence, normally the water-day (which commences at 09.00 hours). Generally, the peak flows are derived from the record of monthly instantaneous maximum flows stored on the River Flow Archive. Where instantaneous flows are not recorded or where the peak value in an incomplete series is exceeded by the highest daily mean flow, the latter is substituted; such substitutions are indicated by a 'd' flag.

As a result of particular flow measurement difficulties in the flood range, the peak flow series (on the River Flow Archive) is often incomplete and the recorded discharges may be of limited accuracy. Consequently, in some cases, the peak flows have been abstracted from an archive of flood events maintained by the Institute of Hydrology since the inception of the Flood Studies project; a 'f' following the peak flow indicates that the Flood Studies archive is the data source. Reference to the reprint of Volume IV of this latter Report[2] should be made to check for historical flood events which may exceed the peak falling within the gauged flow record.

*Minimum Daily Flow / Date of Minimum**

The value and date of occurrence of the lowest daily (normally, a water-day) mean flow in cubic metres per second during the term indicated. In a record in which the value recurs, the date is that of the first occasion. Estimated flow values are identified by a question mark.

Percentiles: 10%, 50% and 95%

The flow in cubic metres per second which was equalled or exceeded for the specified percentage of the term indicated. See page ? for details of the computation of the 10 and 95 percentiles; the 50 percentile is also known as the median value.

SUMMARY OF ARCHIVED DATA

This tabulation summarises – in decade blocks – the river flow and catchment areal rainfall data held on the River Flow Archive at the end of 1992. Part 1 relates to daily gauged flows, monthly peaks and monthly catchment rainfalls. Part 2 relates to naturalised daily and monthly flows. A key is provided for the interpretation of the data summaries.

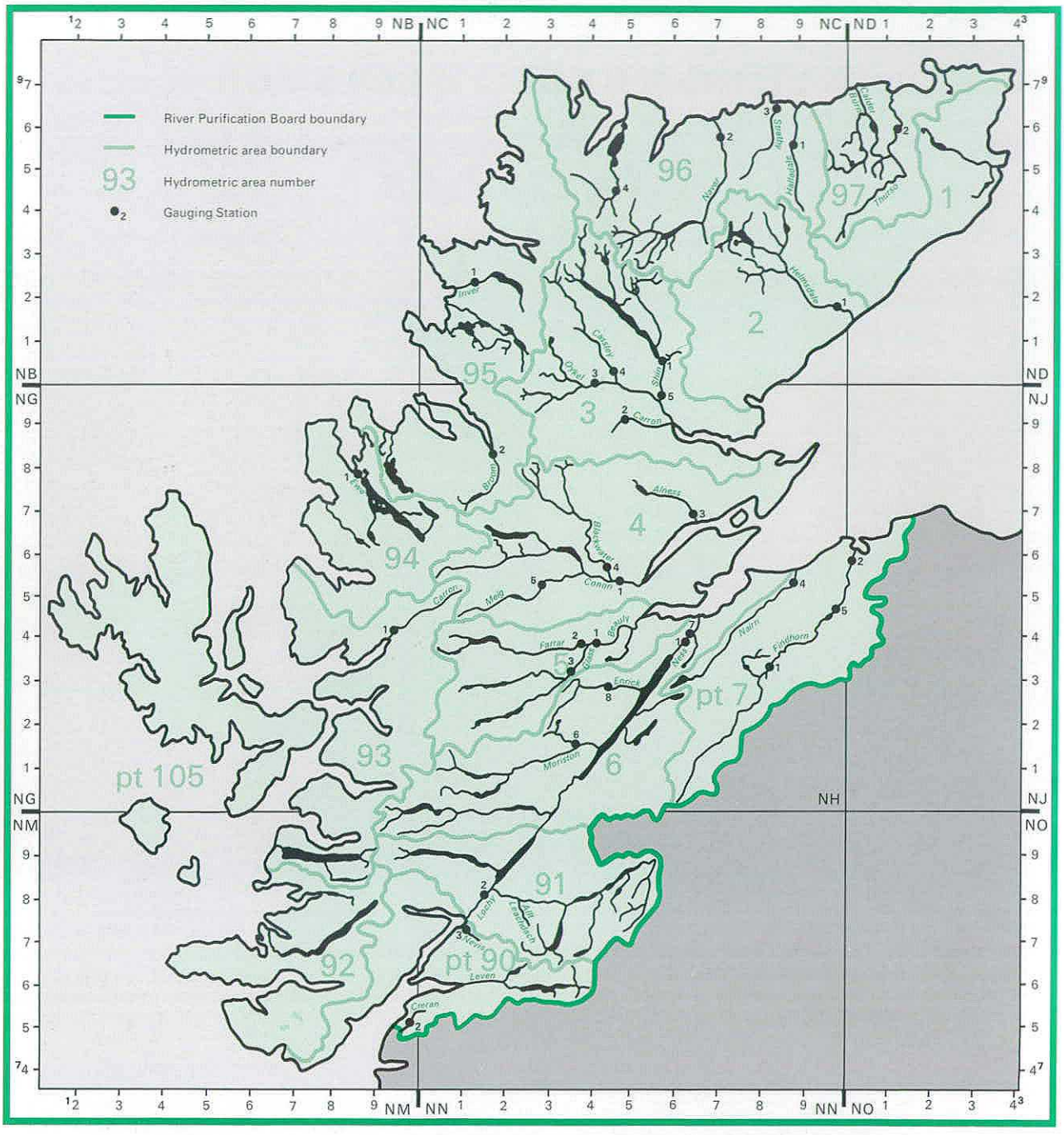
References

1. Bayliss, A.C. and Jones, R.C. 1993. The peaks-over-a-threshold floods database: summary statistics and seasonality. Institute of Hydrology Report No. 121.

2. Flood Studies Report. 1975. Natural Environment Research Council (5 vols). Reprinted 1993.

HYDROMETRIC REGISTER AND STATISTICS 1986–90

HIGHLAND RIVER PURIFICATION BOARD



Area: 23,110 km^2 Average Rainfall (1961–90): 1761mm

Gauging Station Register

Station number	River name	Station name	Grid reference	Catchment area (sq km)	Station type	Period of record	Mean ann. rainfall (mm)	Mean ann. runoff (mm)	Mean ann. loss (mm)	Max. ann. runoff (mm)	Year of max.	Min. ann. runoff (mm)	Year of min.	Mean flow (m^3s^{-1})	Min. mon. flow (m^3s^{-1})	Month/Year of min.	Mean ann. flood (m^3s^{-1})	10 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
002001	Helmsdale	Kilphedir	NC 997181	551.4	VA	1975–90	*1114*	727	387	884	81	**496**	**89**	12.71	**2.17**	**09/89**	180.0	27.5	3.08
003001 *	Shin	Lairg	NC 581062	494.6	VA	1953–57	1525	956	569	1238	54	836	55	14.99	0.66	08/55	64.7	33.4	1.89
003002	Carron	Sgodachail	NH 490921	241.1	VA	1974–90	*2130*	1165	965	**1595**	**90**	895	75	8.91	0.98	08/84	236.8	20.0	0.94
003003	Oykel	Easter Turnaig	NC 403001	330.7	VA	1977–90	2029	1602	427	1931	81	**1237**	**87**	16.80	0.75	06/82	423.9	40.3	1.08
003004	Cassley	Rosehall	NC 472022	187.5	VA	1979–90	2222	1218	1004	1655	81	**866**	**87**	7.24	0.46	06/82		16.8	0.75
003005	Shin	Inveran	NH 574974	575.0	VA	1981–90	*1508*	258	1250	328	83	191	86	4.71	1.73	11/89		5.2	1.65
004001	Conon	Moy Bridge	NH 482547	961.8	VA	1947..90	1850	1548	302	**2542**	**90**	983	63	47.21	2.96	07/49	351.5	88.7	9.16
004003	Alness	Alness	NH 654695	201.0	VA	1974–90	*1497*	935	562	**1240**	**90**	671	76	5.96	**0.51**	08/76	92.5	12.8	0.75
004004	Blackwater	Contin	NH 455563	336.7	VA	1981–90	*1543*	577	966	764	90	369	87	6.16	1.63	07/84		12.7	1.50
004005	Meig	Glenmeannie	NH 286528	120.5	VA	1986–90	2487	1941	546	2410	90	1487	87	7.42	0.93	02/86		17.7	0.61
005001 *	Beauly	Erchless	NH 426405	849.5	VA	1953–62	2194	1694	500	2057	54	1294	60	45.64	7.69	08/55	318.1	82.8	13.70
005002	Farrar	Struy	NH 390405	311.3	VA	1986–90		2116		2712	90	1499	87	20.89	6.29	07/89		41.2	6.35
005003	Glass	Kerrow Wood	NH 354321	481.8	VA	1989–90		2555		2740	90	2369	89	39.03	8.95	06/89		86.6	8.59
006001 *	Ness	Ness Castle Frm	NH 639410	1792.3	VA	1935..63	1755	1298	457	1829	38	875	37	73.78	8.19	08/55	374.4	154.0	12.05
006003 *	Moriston	Invermoriston	NH 416189	391.0	VA	1929–45		1674		2637	38	1168	33	20.75	1.69	06/32	325.8	50.3	1.85
006006 *	Allt Bhlar'dh	Invermoriston	NH 377168	27.5	CB	1953–62	1653	1009	644	1226	54	765	55	0.88	0.02	08/55	17.7	2.1	0.06
006007	Ness	Ness Side	NH 645427	1839.1	VA	1973–90	1898	1500	398	**2255**	**90**	1189	76	87.50	11.64	08/84	369.9	177.1	19.06
006008	Enrick	Mill of Tore	NH 450300	105.9	VA	1979–90	1482	953	529	**1485**	**90**	**631**	**87**	3.20	0.02	08/84		8.1	0.07
007001	Findhorn	Shenachie	NH 826337	415.6	VA	1960–90	1258	1024	234	**1450**	**90**	628	72	13.50	**1.43**	**08/84**	234.9	30.5	2.07
007002	Findhorn	Forres	NJ 018583	781.9	VA	1958–90	1101	759	342	**1034**	**90**	484	72	18.82	2.48	08/76	445.1	41.5	3.30
007004	Nairn	Firhall	NH 882551	313.0	VA	1979–90	1032	583	449	**749**	**90**	**461**	**89**	5.79	0.56	08/84		12.7	0.82
007005	Divie	Dunphail	NJ 005480	165.0	VA	1977..90	*905*	552	353	724	85	330	89	2.89	0.53	07/89		6.1	0.52
007006	Lossie	Torwinny	NJ 135489	20.0	VA	1987–90	911	621	290	741	88	415	89	0.39	0.11	07/89		0.8	0.10
090003	Nevis	Claggan	NN 116742	76.8	VA	1982–90	*3345*	2805	540	3716	90	2130	87	6.83	0.69	02/86		16.5	0.60
091002	Lochy	Camisky	NN 145805	1252.0	VA	1980–90	*2385*	1577	808	**2334**	**90**	**867**	**87**	62.62	3.85	06/88		157.6	5.37
093001	Carron	New Kelso	NG 942429	137.8	VA	1979–90	2900	2552	348	**3374**	**90**	**2026**	**87**	11.15	0.70	05/80		27.2	1.02
094001	Ewe	Poolewe	NG 859803	441.1	VA	1970–90	2525	2089	436	**2841**	**90**	1386	72	29.22	**3.73**	**06/88**	111.2	62.6	5.35
095001	Inver	Little Assynt	NC 147250	137.5	VA	1977–90	2243	1956	287	**2499**	**90**	**1595**	**87**	8.53	1.66	05/80		16.7	1.93
095002	Broom	Inverbroom	NH 184842	141.4	VA	1985–90		1693		2534	90	1136	87	7.59	0.74	02/86		18.3	0.56
096001	Halladale	Halladale	NC 891561	204.6	VA	1976–90	1160	781	379	989	80	513	89	5.07	0.19	08/83	124.4	12.9	0.25
096002	Naver	Apigill	NC 713568	477.0	VA	1977–90	1489	1035	454	**1306**	**90**	**797**	**87**	15.66	0.81	07/84	165.5	35.7	1.20
096003	Strathy	Strathy Bridge	NC 836652	111.8	VA	1985–90	1081	776	305	1020	90	597	89	2.75	0.19	06/88		6.3	0.20
096004	Allnabad	Strathmore	NC 453429	105.0	VA	1987–90	2696	2291	405	2823	90	2007	88	7.63	0.76	06/88		18.6	0.49
097002	Thurso	Halkirk	ND 131595	412.8	VA	1972–90	1066	658	408	850	81	**392**	**89**	8.61	0.31	07/76	101.6	19.9	0.53

Hydrometric Statistics

	Period	Rainfall (mm)	% of pre-1986	Runoff (mm)	% of pre-1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
002001 **Helmsdale at Kilphedir** C.A: 551.4 km²	**75-85**	*1151*		**742**		**12.97**	**273.2**	**30/11 1985**	**0.81**	**06/09 1976**	**28.3**	**7.75**	**2.98**
M.A: HRPB Level: 17m Local Number: 108													
F.A.R: R B.F.I: .48 Sensitivity: 9.1	1986	1138	99	776	105	13.57	133.6	22/03	3.18	10/04	26.0	9.53	4.01
Comment: 40m wide river section with flows outflanking the cableway on the right bank at extreme stages. Adequately gauged to bankfull. Loch Badanloch and An-Ruathair used for river regulation (to benefit fisheries) utilising 30% of the catchment, reduced to 24% in November 1986 following removal of control structure on Loch An-Ruathair. Data available on storage changes in both lochs. # Typical Scottish upland mix of hill pasture and moorland with some 20 sq. km. of surface storage distributed over several medium size lochs.	1987	1006	87	674	91	11.79	175.1	27/03	2.60	27/04	22.3	8.02	3.71
	1988	1092	95	710	96	12.39	138.9	19/01	3.77	14/05	23.5	9.04	3.91
	1989	902	78	496	67	8.67	145.4	17/12	1.29	04/10	18.6	4.39	1.80
	1990	1242	108	816	110	14.26	202.2	28/10	2.92	19/05	31.8	9.93	3.33
003002 **Carron at Sgodachail** C.A: 241.1 km²	**74-85**	*2238*		**1166**		**8.91**	**340.3**	**20/09 1981**	**0.45**	**26/08 1976**	**19.9**	**4.59**	**0.89**
M.A: HRPB Level: 71m Local Number: 107													
F.A.R: H B.F.I: .32 Sensitivity: 13.4	1986	2159	96	1162	100	8.89	170.6	30/10	0.91	03/07	18.3	4.91	1.26
Comment: Well gauged to bankfull. Gravel bed with problems of stability in low flow control necessitating revised rating from time to time. Computed low flows are natural in relation to about 80% of the catchment. The remainder of the headwaters are diverted at low and medium flows to the Conon Valley hydro scheme. # Much of this remote Highland catchment is above 600m with a few hilltop tarns but no significant storage.	1987	1607	72	911	78	6.97	133.3	31/12	0.64	15/12	15.6	4.00	1.43
	1988	1944	87	1091	94	8.31	160.4	09/12	0.62	30/06	20.2	4.90	1.14
	1989	2021	90	1066	91	8.15	264.7	05/02	0.53	23/06	18.4	3.79	0.99
	1990	2365	106	1595	137	12.19	225.0	10/03	**0.36**	**30/07**	27.0	5.79	0.89
003003 **Oykel at Easter Turnaig** C.A: 330.7 km²	**77-85**	**2019**		**1640**		**17.20**	**847.5**	**06/10 1978**	**0.35**	**26/06 1982**	**40.8**	**9.05**	**1.01**
M.A: HRPB Level: 16m Local Number: 113													
F.A.R: N B.F.I: .23 Sensitivity: 12.0	1986	2037	101	1573	96	16.49	310.0	28/12	0.42	02/07	38.2	8.36	0.94
Comment: 40m wide river section. Flows fully contained except in exceptional circumstances (e.g. October 1978). Construction of gabion groynes immediately downstream, in February 1986, has rendered the low flow rating less stable. 100% natural flow regime with little loch storage. # Catchment is typical Highland mix of rough grazing and moorland with some afforestation in the middle reaches.	1987	1601	79	1237	75	12.97	241.3	11/09	1.02	29/05	34.1	6.71	1.80
	1988	1959	97	1506	92	15.75	367.7	09/12	0.70	19/06	38.1	9.45	0.94
	1989	2101	104	1491	91	15.64	309.6	05/02	0.80	20/06	37.4	7.57	1.61
	1990	2493	123	1869	114	19.60	653.2	10/03	0.68	29/07	45.8	9.64	1.11
003004 **Cassley at Rosehall** C.A: 187.5 km²	**79-85**	**2228**		**1294**		**7.70**	**248.6**	**28/12 1983**	**0.24**	**26/06 1982**	**18.5**	**3.15**	**0.67**
M.A: HRPB Level: 3m Local Number: 116													
F.A.R: H B.F.I: .23 Sensitivity: 12.8	1986	2187	98	1171	90	6.96	145.8	28/12	**0.23**	**03/07**	15.7	3.23	0.72
Comment: Cableway at 35m wide river section located 400m downstream of the stage measuring site. Stable gabion groyne control adequately gauged to bankfull. 14% of the upper catchment diverted to the Shin hydro scheme other than compensation flows and spillage. No significant surface storage. # Typical Highland mix of rough grazing and moorland with some afforestation.	1987	1709	77	866	67	5.15	104.5	03/01	0.66	29/05	12.4	2.90	1.02
	1988	2032	91	983	76	5.83	119.6	14/08	0.39	19/06	13.1	3.24	0.76
	1989	2413	108	1117	86	6.64	186.3	05/02	0.62	20/06	14.0	2.92	0.96
	1990	2736	123	1444	112	8.58	244.9	10/03	0.26	29/07	21.8	3.88	0.65

	Period	Rainfall (mm)	% of pre-1986	Runoff (mm)	% of pre-1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
003005 **Shin at Inveran** C.A: 575.0 km²	81-85	*1508*		294		5.36	187.7	17/01	1.27	23/02	5.6	3.40	1.64
M.A: HRPB Level: 4m Local Number: 119								1983		1983			
F.A.R: H B.F.I: .61 Sensitivity: 8.0	1986			191	65	3.49	36.8	28/12	1.48	25/02	4.5	3.38	1.62
Comment: 30m wide river section contained at all but historic stages by a floodbank on the left bank. Fully calibrated to bankfull with a stable gravel control. Station measures only compensation flows and spillage from Shin Dam along with the natural runoff from 44 sq. km. Turbine discharges bypass the station but are recorded. Natural catchment is increased by 20% through interbasin transfers from Rivers Cassley, Hope, Naver and Brora - but large net export. # Catchment is mainly rough grazing and moorland.	1987			195	66	3.55	35.6	31/08	1.31	04/10	4.9	3.59	1.74
	1988			196	67	3.57	17.6	24/01	1.60	10/11	4.9	3.67	1.86
	1989			285	97	5.20	177.7	05/02	1.38	30/11	4.6	3.28	1.55
	1990			261	89	4.75	108.2	12/03	1.49	04/01	5.6	3.30	1.73
004001 **Conon at Moy Bridge** C.A: 961.8 km²	**47..85**	*1829*		**1496**		**45.62**	**1076.0**	**17/12**	**0.57**	**24/09**	**84.9**	**37.73**	**8.59**
M.A: HRPB Level: 10m Local Number: 110								**1966**		**1956**			
F.A.R: H B.F.I: .55 Sensitivity: 5.1	1986	2016	110	1785	119	54.44	265.0	28/12	10.28	01/07	104.4	44.42	11.02
Comment: 80m wide river section. Bypassing, via right floodbank, during extreme flows (e.g. Dec. '89). Station resited 20m u/s in January 1976, early flows less reliable. Gauged to bankfull. Catchment enhanced by 20% by interbasin transfers from catchments of R. Orrin, Ewe, Broom and Carron for power generation. Extensive volumes of surface storage controlled for power generation. Hydrograph dominated by influence of Torr Achilty power station. # Typical Highland catchment.	1987	1511	83	1377	92	42.00	173.3	21/01	9.48	09/05	72.2	37.69	14.65
	1988	1850	101	1685	113	51.24	201.3	09/10	11.77	31/05	82.5	51.01	14.46
	1989	2008	110	2072	139	63.20	703.9	06/02	10.91	01/06	117.4	47.73	14.42
	1990	2417	132	2542	170	77.53	507.0	11/03	11.76	04/06	143.5	58.14	15.64
004003 **Alness at Alness** C.A: 201.0 km²	**74-85**	*1560*		**926**		**5.90**	**170.8**	**04/10**	**0.32**	**05/09**	**12.9**	**3.75**	**0.67**
M.A: HRPB Level: 12m Local Number: 106								**1981**		**1976**			
F.A.R: SR B.F.I: .45 Sensitivity: 10.1	1986	1517	97	938	101	5.98	76.0	14/01	0.70	16/07	12.7	3.77	1.10
Comment: 20m wide fully contained river section with stable boulder control. Difficulties in current metering low flows. Adequately gauged to MAF but upgrading of high flow rating anticipated. Barrage on Loch Marie, through which 45% of the catchment drains, was constructed in 1979 for river regulation (to benefit fisheries). # Most of the catchment is typically Highland and rough grazing.	1987	1175	75	779	84	4.97	33.4	31/12	1.10	08/09	9.6	3.69	1.43
	1988	1427	91	977	106	6.21	51.4	09/10	0.78	30/06	12.4	4.85	1.27
	1989	1415	91	861	93	5.49	85.7	05/02	0.69	14/09	13.3	2.77	0.92
	1990	1639	105	1240	134	7.90	150.0	04/02	0.99	03/06	17.2	5.11	1.26
004004 **Blackwater at Contin** C.A: 336.7 km²	81-85	*1543*		606		6.47	163.5	31/12	1.22	08/05	13.9	3.61	1.61
M.A: HRPB Level: 20m Local Number: 120								1983		1984			
F.A.R: H B.F.I: .39 Sensitivity: 11.3	1986			522	86	5.57	80.5	14/01	1.06	28/02	11.7	3.10	1.32
Comment: 50m wide river section with unstable gravel control requiring regular recalibration at low flows. Runoff from 50% of the natural catchment, along with interbasin transfers from the rivers Broom and Carron amounting to 20% of the natural catchment, bypass the station for power generation and discharge to Loch Luichart. Storages in Loch Vaich and Loch Glascarnoch controlled for power generation. # Typical Highland mix of rough grazing and moorland with some afforestation in the middle reaches.	1987			369	61	3.94	30.9	20/01	1.02	16/12	8.3	2.56	1.39
	1988			486	80	5.18	41.9	09/10	1.07	24/09	11.1	3.42	1.33
	1989			621	102	6.63	192.8	06/02	0.77	13/12	14.0	2.98	1.37
	1990			764	126	8.15	151.2	11/03	1.24	04/01	18.4	3.53	1.59
004005 **Meig at Glenmeannie** C.A: 120.5 km²													
M.A: HRPB Level: *m* Local Number: 124													
F.A.R: N B.F.I: .26 Sensitivity:	1986	2606		1979		7.56	131.1	22/03	0.30	03/07	16.2	4.09	0.59
Comment: 25m wide river section which overtops the left bank during extreme floods (right bank is eroding). Adequately gauged to bankfull of some 150 m^3s^{-1}. Rarely, levels drop below the tapping pipe. No artificial influences thereby providing a useful indication of natural runoff. Only significant surface storage in Loch Beannacharain through which 70% of the catchment drains. # Typical Scottish upland catchment.	1987	1925		1487		5.68	82.2	31/12	0.53	15/12	13.4	3.03	0.86
	1988	2317		1862		7.10	85.5	08/10	0.26	30/06	16.5	4.28	0.61
	1989	2572		1971		7.53	184.9	05/02	0.25	25/07	17.1	3.65	0.45
	1990	3015		2410		9.21	122.7	04/03	0.30	30/07	21.8	4.81	0.57
005002 **Farrar at Struy** C.A: 311.3 km²													
M.A: HRPB Level: 51m Local Number: 127													
F.A.R: B.F.I: .58 Sensitivity:	1986												
Comment: Velocity-area station. Flows well contained at all stages. Low flows reflect compensation releases from Loch Beannacharan and flow regime is heavily influenced by operation of HEP station < 1.5 km u/s. Substantial HEP storage in Loch Monar but no import/export of water to/from the catchment. # Typical Scottish upland catchment with some afforestation in lower reaches.	1987			1499		14.80	82.9	31/12	6.44	22/03	29.2	10.52	6.60
	1988			1999		19.68	108.0	07/10	6.01	22/05	33.4	19.57	6.45
	1989			2052		20.26	213.4	15/01	5.63	16/07	49.2	8.62	6.09
	1990			2712		26.77	216.1	05/03	5.55	22/07	48.9	23.05	6.31
006007 **Ness at Ness Side** C.A: 1839.1 km²	**73-85**	**1797**		**1411**		**82.27**	**619.2**	**02/01**	**7.86**	**03/07**	**168.2**	**62.03**	**17.94**
M.A: HRPB Level: 7m Local Number: 105								**1984**		**1977**			
F.A.R: H B.F.I: .60 Sensitivity: 6.3	1986	2260	126	1749	124	101.99	373.0	03/12	22.44	17/07	214.3	68.80	30.40
Comment: 80m wide fully contained river section. Frequent recalibration of low flow rating due to alteration of stop-log configuration on weir which forms control. Fully calibrated to maximum recorded flow. HEP schemes on Garry, Moriston and Foyers tributaries utilise runoff from 56% of catchment. Caledonian Canal lockages bypass station but, overall, small net import. Hydrograph damped by influence of Loch Ness. # Large SW/NE trending Highland catchment.	1987	1540	86	1194	85	69.66	310.2	31/12	17.77	05/08	126.5	62.02	21.74
	1988	2005	112	1606	114	93.43	361.1	09/10	27.02	01/07	149.6	84.82	36.42
	1989	2248	125	1865	132	108.74	**801.2**	**07/02**	11.06	20/07	226.8	65.77	18.50
	1990	2749	153	2255	160	131.49	653.9	05/02	21.21	29/07	321.5	86.63	29.21
006008 **Enrick at Mill of Tore** C.A: 105.9 km²	**79-85**	**1399**		**890**		**2.99**	**59.9**	**28/07**	**0.01**	**29/08**	**7.6**	**1.53**	**0.05**
M.A: HRPB Level: 109m Local Number: 117								**1980**		**1984**			
F.A.R: N B.F.I: .32 Sensitivity:	1986	1650	118	1026	115	3.44	49.3	07/12	0.06	21/07	9.4	1.54	0.09
Comment: 15m wide river section. Prior to 1991, bypassing on the right bank at extreme flows. Well established, stable rating up to bankfull. Computed flows 100% natural but whole catchment drains through Loch Meiklie (1 km²). Flows recede to unexpected low levels possibly due to sub-surface flows below the station. # Typical upland catchment (rough grazing and moorland) with increasing afforestation (approx. 25% of catchment) especially around Loch Meiklie.	1987	1103	79	631	71	2.12	27.2	31/12	0.20	12/08	5.0	1.18	0.34
	1988	1530	109	970	109	3.25	49.5	09/10	0.06	30/06	7.2	2.16	0.19
	1989	1638	117	1030	116	3.46	55.0	07/02	0.01	05/08	10.1	1.18	
	1990	2063	147	1485	167	4.99	**78.0**	**04/02**	0.05	04/08	14.5	1.96	0.10
007001 **Findhorn at Shenachie** C.A: 415.6 km²	**60-85**	**1239**		**1003**		**13.22**	**577.7**	**21/09**	**1.08**	**27/08**	**30.1**	**7.64**	**2.05**
M.A: HRPB Level: 252m Local Number: 102								**1981**		**1984**			
F.A.R: N B.F.I: .36 Sensitivity: 15.3	1986	1456	118	1113	111	14.67	235.0	07/12	1.65	21/07	32.7	8.35	2.19
Comment: 50m wide river section adequately gauged to bankfull. Flow contained under cableway up to 3.9m. Liable to extremely rapid rises in level. Prior to January 1978, station was located 700m u/s and cableway 500m d/s of present site. 100% natural runoff with minimal surface storage. # Extensive blanket peat over long, narrow, steep-sided catchment which is nested within that of station 7002.	1987	1103	89	994	99	13.10	120.4	01/03	3.53	19/08	28.7	8.47	3.85
	1988	1299	105	1124	112	14.77	237.9	07/10	1.62	30/06	34.9	9.87	2.28
	1989	1196	97	963	96	12.69	297.7	14/01	1.56	19/07	28.1	7.96	1.92
	1990	1709	138	1450	145	19.11	428.7	06/06	1.75	03/08	43.4	11.09	2.41
007002 **Findhorn at Forres** C.A: 781.9 km²	**58-85**	**1089**		**748**		**18.55**	**2410.0**	**17/08**	**1.75**	**23/08**	**40.9**	**11.15**	**3.19**
M.A: HRPB Level: 7m Local Number: 101								**1970**		**1976**			
F.A.R: N B.F.I: .41 Sensitivity: 5.7	1986	1157	106	757	101	18.78	228.1	07/12	3.16	17/07	41.6	12.74	3.70
Comment: 50m wide river section in a mobile gravel reach which necessitates frequent recalibration of low flow rating. Flows contained under cableway up to 3.8m. Adequately gauged to bankfull. 100% natural catchment with minimal surface storage. # Other than a narrow agricultural coastal plain the catchment drains the Monadhliath Mountains with an extensive blanket peat cover.	1987	991	91	746	100	18.50	167.9	07/06	3.89	14/12	37.2	12.72	5.72
	1988	1144	105	876	117	21.66	229.8	20/08	3.01	30/06	47.1	15.84	3.73
	1989	967	89	676	90	16.76	274.2	15/01	3.42	12/12	37.1	10.86	3.78
	1990	1445	133	1034	138	25.65	534.2	06/06	3.09	03/08	57.0	15.91	3.92
007004 **Nairn at Firhall** C.A: 313.0 km²	**79-85**	*1052*		**601**		**5.97**	**198.4**	**03/10**	**0.46**	**23/08**	**13.1**	**3.69**	**0.75**
M.A: HRPB Level: 7m Local Number: 114								**1981**		**1984**			
F.A.R: PN B.F.I: .45 Sensitivity: 9.3	1986	931	88	475	79	4.72	44.4	20/01	0.66	21/07	9.8	3.15	0.80
Comment: 20m wide river section with overbank flow at extreme levels. Adequately gauged to bankfull and a rock protection to a d/s pipeline provides a stable low flow control. Sensibly natural regime; only net abstraction is PWS for Inverness from Loch Duntelchaig through which only 7% of the upper catchment drains. No other significant surface storage. Daily level observations from April 1974 to January 1976. # Catchment comprises hill pastures and peat moorland except for some 20% of the downstream reach which is cultivated.	1987	901	86	499	83	4.96	68.4	07/06	1.27	05/10	9.3	3.41	1.69
	1988	1032	98	604	100	5.98	121.6	09/10	0.87	01/07	12.9	3.89	1.07
	1989	852	81	461	77	4.58	115.0	07/02	0.69	04/08	11.2	2.28	0.76
	1990	1327	126	749	125	7.43	176.2	06/06	0.95	03/08	19.3	4.39	1.09

		Period	Rainfall (mm)	% of pre-1986	Runoff (mm)	% of pre-1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
007005	**Divie at Dunphail** C.A: 165.0 km²	77-85	*1065*		591		3.09	118.7	24/09 1984	0.42	29/08 1984	6.5	2.16	0.51
M.A: HRPB	Level: m Local Number: 122													
F.A.R: N	B.F.I: .42 Sensitivity: 13.3	1986	795	75	454	77	2.38	59.3	10/06	0.44	21/07	5.1	1.36	0.56
Comment: 15m wide fully contained river section. Unstable gravel control requires recalibration of low flows following flood events. Calibrated to 35 m^3s^{-1}. Computed flows 100% natural. 20% of catchment drains through Lochindorb with a surface area of some 2.3 sq. km. which is the only significant storage. # Catchment is mainly peat moorland.		1987	855	80	570	96	2.98	54.6	27/03	0.70	04/10	6.5	1.76	0.81
		1988	957	90	613	104	3.20	63.6	02/05	0.57	25/06	7.0	1.87	0.66
		1989	683	64	331	56	1.73	48.5	12/05	0.41	18/08	3.2	1.04	0.47
		1990	1085	102	607	103	3.18	79.6	28/10	0.43	02/08	7.3	1.89	0.57
007006	**Lossie at Torwinny** C.A: 20.0 km²													
M.A: NERPB	Level: m Local Number:													
F.A.R: N	B.F.I: .46 Sensitivity:	1986												
Comment: Velocity-area station with gabion control (sloping). Curved approach but good low flow calibration. Natural regime, no abstractions. # Small, heavily forested (1969: about 75%) upland catchment, some rough moorland remains in the headwaters; developed on metamorphics with some superficial cover.		1987	921											
		1988	1002		743		0.47	6.4	20/08	0.12	26/06	1.0	0.28	0.14
		1989	689		414		0.26	8.0	12/05	0.09	24/07	0.4	0.16	0.09
		1990	1030		671		0.43	26.4	28/10	0.10	02/08	0.8	0.22	0.10
090003	**Nevis at Claggan** C.A: 76.8 km²	82-85			2543		6.19	189.0	27/12 1983	0.16	26/08 1984	15.1	3.08	0.50
M.A: HRPB	Level: 4m Local Number: 121													
F.A.R:	B.F.I: .26 Sensitivity: 9.2	1986	3510		2957	116	7.20	122.5	22/03	0.48	24/02	20.8	3.80	0.60
Comment: 20m wide river section with boulder control. All flows contained. Difficulty in gauging low flows results in a scattered low flow rating. Computed flows very largely natural (runoff from 6.7 sq.km. of the headwaters diverted to Loch Trieg and, further d/s, around 5% of Q95 is abstracted for public water supply. # Wet, steep-sided, high altitude catchment draining southern slopes of Ben Nevis with no storage. Prolonged winter snow cover.		1987	2329		2130	84	5.19	86.3	31/12	0.67	10/12	13.5	2.70	0.84
		1988	3332		2809	110	6.82	118.2	07/10	0.37	29/06	14.8	3.93	0.90
		1989	3699		3084	121	7.51	195.6	14/01	0.26	24/07	19.1	3.53	0.46
		1990	3860		3716	146	9.05	219.0	18/09	0.44	27/07	20.5	4.63	0.87
091002	**Lochy at Camisky** C.A: 1252.0 km²	**80-85**	**2385**		**1473**		**58.48**	**1252.2**	**28/12 1983**	**1.15**	**27/08 1984**	**147.4**	**32.92**	**5.14**
M.A: HRPB	Level: 12m Local Number: 118													
F.A.R: SH	B.F.I: .39 Sensitivity: 4.8	1986			1687	115	66.98	774.6	22/03	5.08	18/09	196.1	30.88	5.53
Comment: 60m wide, fully contained river section with stable gravel bed calibrated to 600 m^3s^{-1}. Abstractions for power generation and flows in Caledonian Canal regularly bypass station. Complex catchment with three large reservoirs controlled for power generation and transfers from the Rivers Nevis, Mashie and Spey increasing the natural catchment by 17%. Significant snow cover during winter. Staff gauge observations from February 1977 to July 1979. # Catchment is mainly rough grazing and moorland with some afforestation.		1987			867	59	34.40	401.6	31/12	5.45	14/12	69.4	25.25	6.64
		1988			1471	100	58.26	518.2	07/10	1.44	30/06	125.7	40.07	4.45
		1989			1966	133	78.05	**1420.5**	**15/01**	4.39	23/06	193.8	35.76	5.35
		1990			2334	158	92.64	1198.5	07/03	4.50	28/07	274.4	37.52	5.75
093001	**Carron at New Kelso** C.A: 137.8 km²	**79-85**	**2798**		**2458**		**10.74**	**295.5**	**31/12 1983**	**0.43**	**27/06 1982**	**26.5**	**5.28**	**0.98**
M.A: HRPB	Level: 6m Local Number: 115													
F.A.R: N	B.F.I: .26 Sensitivity: 15.4	1986	3052	109	2656	108	11.60	181.7	22/03	0.69	02/03	26.9	6.89	0.97
Comment: 40m wide river section with floodbank on right. Any bypassing in extreme floods will be over 30m wide floodplain on left bank. Unstable gravel control requires regular calibration of low flow range. Adequately gauged to bankfull. Computed flows are 100% natural. 70% of catchment drains through Loch Dughaill with little additional surface storage. # Typical mix of rough grazing and moorland. One of the wetter Highland catchments currently gauged.		1987	2322	83	2026	82	8.85	105.4	31/12	0.98	15/12	25.1	4.45	1.36
		1988	2912	104	2485	101	10.83	167.2	07/10	0.56	30/06	25.3	6.45	0.84
		1989	3222	115	2871	117	12.55	**337.4**	**05/02**	0.88	15/12	25.9	6.32	-1.26
		1990	3682	132	3373	137	14.74	337.4	18/09	0.65	28/07	36.6	7.14	1.06
094001	**Ewe at Poolewe** C.A: 441.1 km²	**70-85**	*2459*		**2022**		**28.28**	**179.8**	**31/12 1983**	**1.96**	**18/05 1974**	**61.7**	**21.10**	**5.30**
M.A: HRPB	Level: 5m Local Number: 103													
F.A.R: N	B.F.I: .65 Sensitivity: 3.4	1986	2772	113	2373	117	33.20	129.9	03/12	3.92	02/03	76.3	21.58	5.33
Comment: 50m wide river section with stable gabion control which has been modified infrequently resulting in recalibration of low flows. (No overbank flow). Rating improved following installation of cableway in 1970. In excess of 95% of the catchment drains through Loch Maree with a surface area of some 30km which dominates the flow regime. Low to medium flows from 3% of the upper catchment diverted to Conon hydro scheme. # Catchment is typical Highland uplands.		1987	2072	84	1671	83	23.37	83.7	31/12	5.46	28/06	44.4	19.71	7.96
		1988	2559	104	2128	105	29.68	125.5	09/10	2.59	04/07	56.7	25.27	3.43
		1989	2886	117	2424	120	33.90	**247.7**	**06/02**	4.52	16/12	67.2	25.04	6.05
		1990	3310	135	2841	141	39.74	156.2	10/03	5.65	03/06	82.3	29.80	7.94
095001	**Inver at Little Assynt** C.A: 137.5 km²	**77-85**	*2259*		**1937**		**8.44**	**62.8**	**07/03 1983**	**1.03**	**24/05 1980**	**17.4**	**6.46**	**1.89**
M.A: HRPB	Level: 60m Local Number: 111													
F.A.R: N	B.F.I: .64 Sensitivity: 6.3	1986	2095	93	1936	100	8.44	35.0	10/11	1.10	02/03	16.4	6.89	2.10
Comment: 30m wide completely contained river section with adequately gauged stable calibration in excess of MAF. Flow regime completely natural except for twice yearly operation of gates immediately upstream at the outlet to Loch Assynt with a surface area of 7.9 sq. km. Loch levels available for beginning of each month. # Catchment is rough grazing and moorland with many lochans.		1987	1747	77	1595	82	6.96	21.2	23/11	2.06	30/06	12.0	6.30	2.67
		1988	2055	91	1884	97	8.19	21.9	28/12	1.28	30/06	14.2	8.15	1.54
		1989	2358	104	1993	103	8.69	**63.6**	**06/02**	1.56	24/06	15.9	6.77	2.09
		1990	2836	126	2499	129	10.90	46.4	10/03	1.74	02/06	19.9	9.50	2.27
095002	**Broom at Inverbroom** C.A: 141.4 km²	85-85						114.2	05/11 1985	0.50	17/02 1985			
M.A: HRPB	Level: m Local Number: 123													
F.A.R: H	B.F.I: .24 Sensitivity: 18.2	1986			1704		7.64	143.9	10/11	0.22	01/07	16.9	4.26	0.42
Comment: 25m wide river section. Floodbank on left bank protects a wide cultivated floodplain. Unstable gravel control, significant low flow gaugings scatter. Slightly skew velocity in high flows. Adequately calibrated to bankfull (150 m^3s^{-1}). 20% of natural catchment diverted (except overflows) via Loch Droma to Conon HEP scheme. 25% of upper catchment drains through the only additional surface storage in Loch a' Bhraoin. # Catchment typically Scottish upland except for a very narrow cultivated band on the lower valley floor.		1987			1136		5.09	99.8	31/12	0.42	15/12	12.4	2.97	0.88
		1988			1481		6.62	127.8	07/10	0.32	01/07	16.0	4.15	0.55
		1989			1850		8.30	237.4	05/02	0.35	25/07	19.2	3.58	0.60
		1990			2534		11.36	210.2	03/03	0.25	28/07	26.0	4.93	0.55
096001	**Halladale at Halladale** C.A: 204.6 km²	**76-85**	**1204**		**798**		**5.18**	**189.1**	**21/09 1981**	**0.12**	**26/08 1984**	**13.4**	**2.24**	**0.23**
M.A: HRPB	Level: 23m Local Number: 109													
F.A.R: N	B.F.I: .25 Sensitivity: 21.3	1986	1117	93	775	97	5.03	140.8	10/06	0.24	14/07	11.9	2.58	0.32
Comment: 20m wide river section adequately gauged to bankfull. Computed flows 100% natural. # Catchment is largely moorland with a peat based cover. Extensive afforestation from late 1970s.		1987	1010	84	696	87	4.52	122.6	27/03	0.21	27/05	11.1	2.23	0.43
		1988	1090	91	769	96	4.98	117.6	11/09	0.14	28/06	12.4	2.80	0.26
		1989	884	73	513	64	3.33	98.8	17/12	0.20	25/07	8.0	1.35	0.27
		1990	1260	105	988	124	6.41	172.0	16/08	0.25	28/05	15.8	3.10	0.35
096002	**Naver at Apigill** C.A: 477.0 km²	**77-85**	**1485**		**1060**		**16.04**	**234.0**	**04/10 1981**	**0.53**	**26/06 1982**	**37.5**	**10.92**	**1.03**
M.A: HRPB	Level: 5m Local Number: 112													
F.A.R: N	B.F.I: .42 Sensitivity: 10.9	1986	1527	103	1049	99	15.87	114.2	14/01	0.90	16/07	35.9	10.27	1.26
Comment: 40m wide river section with short 6m floodplain on right bank but otherwise completely contained. Gravel control - regular need to reassess low flow rating. Calibrated to bankfull. Computed flows 98% natural with small interbasin transfer to the Shin hydro-electric scheme. Several small high level lochs in addition to the total surface area of Lochs Coire, Meadie and Naver of 13 sq. km. 50% of the catchment drains through the latter. # Catchment is typical Highland mix of rough grazing and moorland. Relatively little loch storage.		1987	1238	83	797	75	12.05	94.3	27/03	1.87	29/05	25.0	9.31	2.38
		1988	1350	91	918	87	13.84	72.6	20/08	0.91	30/06	26.4	12.20	1.47
		1989	1408	95	868	82	13.13	152.8	06/02	0.87	28/07	30.2	6.97	1.27
		1990	1907	128	1306	123	19.75	129.7	20/11	1.41	03/08	45.9	13.43	1.89
096003	**Strathy at Strathy Bridge** C.A: 111.8 km²	85-85						38.2	03/01 1985					
M.A: HRPB	Level: m Local Number: 125													
F.A.R:	B.F.I: .26 Sensitivity:	1986	1084		741		2.63	47.9	10/06	0.16	12/07	6.0	1.53	0.19
Comment: 15m wide river section with bypassing on the right bank during extreme flood events in excess of 50 m^3s^{-1}. Stable pitched river bed control with gabion mattress constriction to increase sensitivity. Adequately gauged to bankfull flow of 30 m^3s^{-1}. Computed flows 100% natural. # No significant surface storage but several small hill lochs on a low altitude, gently sloping peat-covered catchment extensively afforested from the late 1970s.		1987	1000		701		2.49	47.7	27/03	0.20	05/06	5.8	1.32	0.28
		1988	1031		723		2.56	45.4	12/09	0.11	26/06	5.9	1.60	0.16
		1989	943		597		2.12	51.5	28/10	0.14	25/07	5.4	0.98	0.17
		1990	1346		1020		3.62	84.3	16/08	0.20	31/07	8.2	1.85	0.31

	Period	Rainfall (mm)	% of pre-1986	Runoff (mm)	% of pre-1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
096004 **Allnabad at Strathmore** C.A: 105.0 km²													
M.A: HRPB Level: m Local Number: 128													
F.A.R: N B.F.I: .19 Sensitivity:	1986	2583											
Comment: Velocity-area station with degraded gabion control. Extreme low flows	1987	2132											
measured 2 km downstream (C.A. increase: 7 km²). Natural and very responsive	1988	2383		2012		6.68	168.7	14/08	0.25	18/06	17.3	3.67	0.41
flow regime; moderate storage in headwater lochans. # Wet, rugged, upland	1989	2767		2065		6.88	250.1	29/01	0.27	19/06	15.0	3.43	0.59
catchment developed principally on metamorphics of the Moinian Series. Moorland	1990	3494		2823		9.40	255.3	11/12	0.29	27/07	23.2	4.49	0.50
and rough grazing dominate land use.													
097002 **Thurso at Halkirk** C.A: 412.8 km²	**72-85**	**1072**		**677**		**8.86**	**163.7**	**24/11**	**0.22**	**29/08**	**20.9**	**5.07**	**0.49**
M.A: HRPB Level: 30m Local Number: 104								**1980**		**1976**			
F.A.R: RP B.F.I: .46 Sensitivity: 19.1	1986	1069	100	647	96	8.48	80.8	01/01	0.63	21/07	17.1	5.99	0.88
Comment: 30m wide river section with full containment and a completely stable	1987	1030	96	627	93	8.20	118.6	28/03	0.95	04/06	17.4	5.28	1.45
rock bar control. Adequately rated to bankfull but difficulty in current metering low	1988	1099	103	687	101	8.97	70.2	25/01	0.63	30/06	18.4	6.96	1.07
flows. 50% of catchment drains through Loch More which is used for river	1989	824	77	392	58	5.13	96.8	17/12	0.39	02/08	11.9	3.29	0.51
regulation. Average net abstraction from Loch Calder of some 5% of the computed	1990	1199	112	669	99	8.75	106.0	17/08	1.12	28/05	19.4	5.49	1.74
long-term average runoff. # Catchment characterised by small lochs on													
predominantly blanket peat cover. Extensive afforestation of upper catchment													
from late 1970s.													

Summary of Archived Data – 1

Gauged daily flows, monthly peaks and monthly rainfall

Stn. number	Gauged daily flows, monthly peaks and rainfall			
002001	70s —aaaaa	80s	aAAAAAAAAA	
	90s AAe			
003001	50s –eAAAe–	60s	———	
	70s ———	80s	——††††	
	90s ††			
003002	70s —aaaaaa	80s	aAAAAAAAAA	
	90s AAe			
003003	70s ------eAA	80s	AAAAAAAAAA	
	90s AAe			
003004	70s -------E	80s	AAAAAAAAAA	
	90s AAe			
003005	80s -eaaaAaaaa	90s	bae	
004001	40s -------tcf	50s	cccbAEAAEA	
	60s BABABAAAAA	70s	E†††††AAAA	
	80s AAAAAAAAAA	90s	AAe	
004003	70s ----aaaaaa	80s	aAAAAAAAAA	
	90s AAe			
004004	80s -eaaaAaaaa	90s	aae	
004005	80s ----AAAA	90s	AAe	
005001	50s —eAAAAAA	60s	AAE-††††††	
	70s ††††			
005002	80s ------eaaa	90s	aae	
005003	80s --------a	90s	aae	
006001	30s —eAAAB	40s	BBBABBBBAA	
	50s E††EAAAAAA	60s	AAAE††††††	
	70s ††††—	80s	———	
	90s ††			
006003	20s ——f	30s	ccccccccc	
	40s ccccc|—	50s	--------	
	60s ———	70s	--------	
	80s —††††	90s	††	
006006	50s —eAAAAAB	60s	BAe----	
	70s ———	80s	-----††††	
	90s ††			
006007	70s —AAAAAAA	80s	AAAAAAAAAA	
	90s AAe			
006008	70s --------E	80s	AAAAAAAAAA	
	90s AAe			
007001	60s eAAAAAAAAA	70s	AAAAAAAAAA	
	80s AAAAAAAAAA	90s	AAe	
007002	50s -------eA	60s	AAAAAAAAAA	
	70s AAAAAAAAAA	80s	AAAAAAAAAA	
	90s AAe			
007004	70s -------a	80s	aAAAAAAAAA	
	90s AAe			
007005	70s ------fff	80s	f-aaAAAAA	
	90s AAe			
007006	80s -------EAA	90s	AAb	
090003	80s -eaaaAAAA	90s	AAe	
091002	80s eAAAAAaaaa	90s	aae	
093001	70s ———A	80s	AAAAAAAAAA	
	90s AAe			
094001	60s -††††††††	70s	EAAAAAAAaa	
	80s AAAAAAAAAA	90s	AAe	
095001	70s -------eAA	80s	AAAAAAAAAA	
	90s AAe			
095002	80s -----eaaaa	90s	aae	
096001	70s ------AAAA	80s	AAAAAAAAAA	
	90s BAe			
096002	70s -------eAA	80s	AAAAAAAAAA	
	90s AAe			
096003	80s -----eAAAA	90s	AAe	
096004	80s ------†EAA	90s	AAe	
097002	60s -††††††††	70s	††AAAAAAAA	
	80s AAAAAAAAAA	90s	AAe	

Summary of Archived Data – 2

Naturalised daily and monthly flows

Stn. number	Naturalised daily, and monthly flows		
006007	70s ---EEEEEEF		
097002	70s --EEEEEF		

Gauged daily flows, monthly peaks and monthly rainfall

KEY:

	Complete rainfall	Incomplete or missing rainfall
Complete daily and complete peaks	A	a
Complete daily and partial peaks	B	b
Complete daily and no peaks	C	c
Partial daily and complete peaks	D	d
Partial daily and partial peaks	E	e
Partial daily and no peaks	F	f
No flow data	†	-

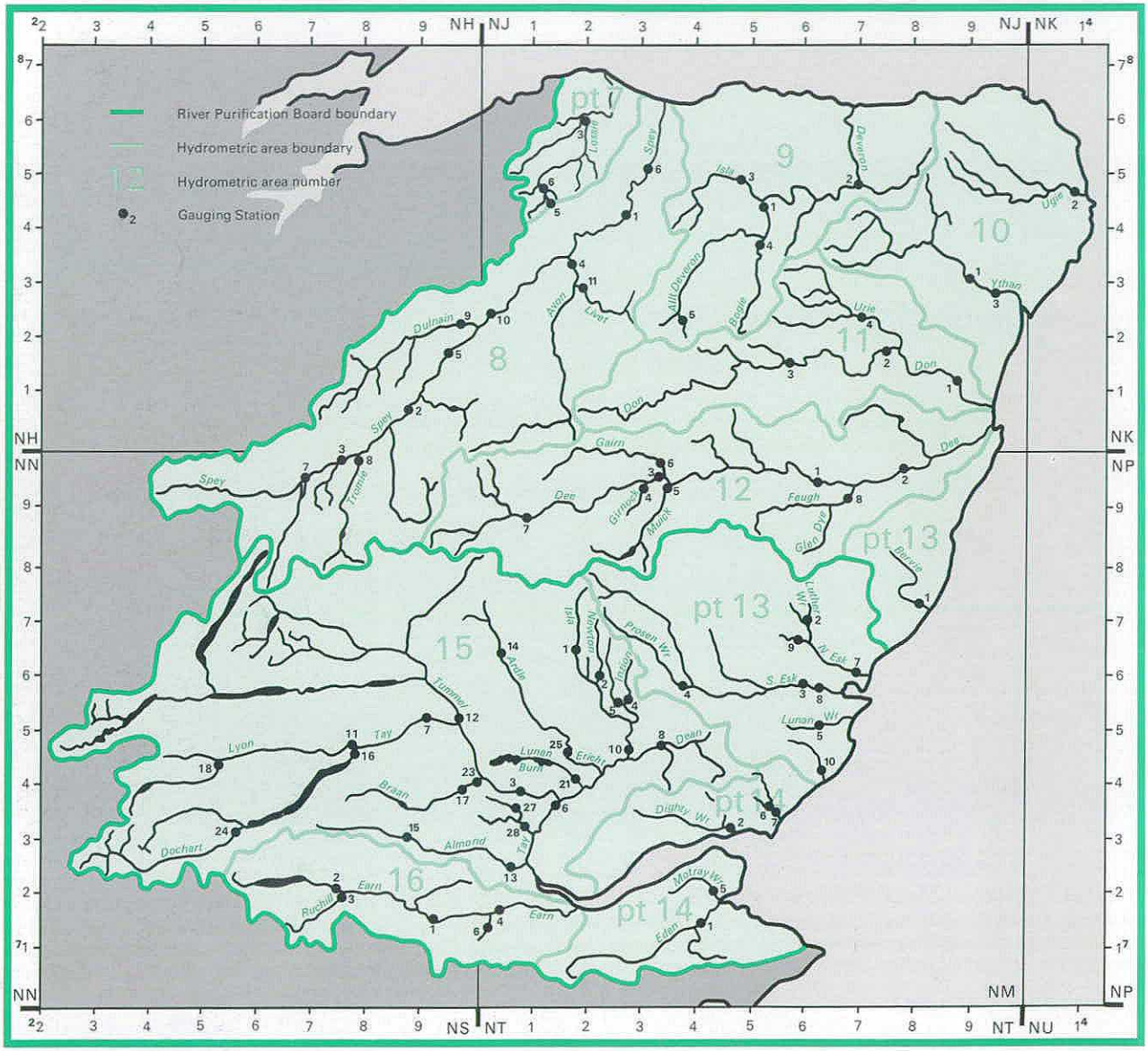
Naturalised daily and monthly flows

KEY:

Complete daily and complete monthly	A
Partial daily and complete monthly	B
Partial daily and partial monthly	C
Partial daily and no monthly	D
No daily and complete monthly	E
No daily and partial monthly	F
No naturalised flow data	-

Up-to-date Summaries of Archived Data are available on request from the National Water Archive Office.

NORTH EAST RIVER PURIFICATION BOARD
and the
TAY RIVER PURIFICATION BOARD



NERPB
Area: 10,420 km^2
Average Rainfall (1961–90): 973mm

TRPB
Area: 8,710 km^2
Average Rainfall (1961–90): 1229mm

Gauging Station Register

Station number	River name	Station name	Grid reference	Catchment area (sq km)	Station type	Period of record	Mean ann. rainfall (mm)	Mean ann. runoff (mm)	Mean ann. loss (mm)	Max. ann. runoff (mm)	Year of max.	Min. ann. runoff (mm)	Year of min.	Mean flow (m^3s^{-1})	Min. mon. flow (m^3s^{-1})	Month/Year of min.	Mean ann. flood (m^3s^{-1})	10 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
007003	Lossie	Sheriffmills	NJ 194626	216.0	VA	1963..90	828	381	447	583	66	182	72	2.61	0.49	08/76	42.4	5.0	0.70
008001 *	Spey	Aberlour	NJ 278439	2654.7	VA	1938..74	*1094*	669	425	840	54	488	64	56.28	9.95	08/55	468.2	105.2	16.86
008002	Spey	Kinrara	NH 881082	1011.7	VA	1951–90	1315	671	644	**1083**	90	474	55	21.54	3.03	08/84	150.7	41.9	5.95
008003 *	Spey	Ruthven Bridge	NN 759996	533.8	VA	1951–73	1364	551	813	836	54	420	69	9.32	1.66	08/55	106.9	18.1	2.73
008004	Avon	Delnashaugh	NJ 186352	542.8	VA	1952–90	1074	846	228	1120	66	**513**	**89**	14.57	2.87	08/76	254.9	27.5	4.08
008005	Spey	Boat of Garten	NH 946191	1267.8	VA	1951..90	1260	708	552	**1059**	**90**	477	55	28.46	5.19	08/55	174.7	53.4	8.85
008006	Spey	Boat o Brig	NJ 318518	2861.2	VA	1952–90	1111	711	400	913	54	487	72	64.53	11.31	08/55	560.1	120.7	19.30
008007	Spey	Invertruim	NN 687962	400.4	VA	1952–90	1474	456	1018	**876**	**90**	**310**	**87**	5.79	0.85	08/84	104.5	9.8	1.55
008008	Tromie	Tromie Bridge	NN 789995	130.3	VA	1952–90	1387	589	798	**1045**	**90**	**394**	**87**	2.44	0.52	08/84	66.7	3.5	1.19
008009	Dulnain	Balnaan Bridge	NH 977247	272.2	VA	1952–90	1009	687	322	**912**	**90**	411	72	5.93	0.74	08/84	97.6	12.6	1.14
008010	Spey	Grantown	NJ 033268	1748.8	VA	1953–90	1170	668	502	**934**	**90**	494	69	37.07	7.23	08/55	241.2	71.0	10.70
008011	Livet	Minmore	NJ 201291	104.0	VA	1978..90	*944*	667	277	877	85	**380**	**89**	2.20	0.69	08/89		4.1	0.74
009001	Deveron	Avochie	NJ 532464	441.6	VA	1959–90	988	623	365	888	60	**289**	**89**	8.72	1.62	08/76	127.6	16.6	2.25
009002	Deveron	Muiresk	NJ 705498	954.9	VA	1960..90	920	540	380	761	85	**249**	**89**	16.35	2.58	08/76	230.5	32.4	3.59
009003	Isla	Grange	NJ 494506	176.1	VA	1969..90	852	465	387	761	85	**231**	**89**	2.60	0.37	08/76	39.7	5.3	0.57
009004	Bogie	Redcraig	NJ 519373	179.0	VA	1980–90	*881*	532	349	769	85	**236**	**89**	3.02	**0.80**	**08/89**		5.9	0.85
009005	Allt Deveron	Cabrach	NJ 378291	67.0	CB	1948..90	*955*	732	223	981	60	**395**	**89**	1.56	0.35	09/59		3.0	0.44
010001 *	Ythan	Ardlethen	NJ 924308	448.1	VA	1965–83	850	471	379	676	66	258	73	6.69	1.17	08/76	51.0	13.3	1.57
010002	Ugie	Inverugie	NK 101485	325.0	VA	1971–90	797	440	357	631	85	**201**	**89**	4.54	0.86	08/76	55.9	9.0	1.05
010003	Ythan	Ellon	NJ 947303	523.0	VA	1983–90	785	436	349	635	85	169	89	7.23	1.25	08/84		15.2	1.50
011001	Don	Parkhill	NJ 887141	1273.0	VA	1969–90	881	490	391	723	85	**219**	**89**	19.78	4.57	10/72	157.4	39.8	5.26
011002	Don	Haughton	NJ 756201	787.0	VA	1969–90	912	560	352	797	85	**268**	**89**	13.98	3.31	08/76	130.1	27.9	3.91
011003	Don	Bridge of Alford	NJ 566170	499.0	VA	1973–90	993	647	346	846	85	**331**	**89**	10.23	2.43	08/76	106.1	19.4	3.06
011004	Urie	Pitcaple	NJ 721260	198.0	VA	1989–90	659	236	423	278	90	194	89	1.48	0.73	08/89		2.6	0.68
012001	Dee	Woodend	NO 635956	1370.0	VA	1929–90	1118	835	283	1129	82	557	73	36.28	5.14	08/84	420.4	72.5	8.36
012002	Dee	Park	NO 798983	1844.0	VA	1972–90	1103	777	326	1052	82	462	73	45.46	5.94	08/76	603.6	94.4	8.55
012003	Dee	Polhollick	NO 344965	690.0	VA	1975–90	*1359*	1047	312	1384	82	**842**	**89**	22.90	2.82	**08/83**	259.1	48.3	4.72
012004	Girnock Burn	Littlemill	NO 324956	30.3	VA	1969..88	*1146*	533	613	779	84	297	73	0.51	0.03	07/77	17.9	1.0	0.04
012005	Muick	Invermuick	NO 364947	110.0	VA	1976–90	*1344*	1030	314	1441	82	**722**	**89**	3.59	0.40	08/84		7.1	0.62
012006	Gairn	Invergairn	NO 353971	150.0	VA	1978–90	1001	825	176	1024	82	**492**	**89**	3.92	0.61	08/84		7.7	0.84
012007	Dee	Mar Lodge	NO 098895	289.0	VA	1982–90	*1450*	1368	82	1525	90	1113	89	12.54	1.16	08/84		25.3	2.37
012008	Feugh	Heugh Head	NO 687928	229.0	VA	1985–90	1046	718	328	931	88	388	89	5.21	0.86	07/89		10.1	0.85
013001	Bervie	Inverbervie	NO 826733	123.0	VA	1979–90	896	537	359	802	84	**225**	**89**	2.09	0.32	08/83		4.3	0.32
013002	Luther Water	Luther Bridge	NO 660668	138.0	VA	1982–90	*887*	513	374	774	84	237	89	2.25	0.36	08/82		4.5	0.39
013003 *	South Esk	Stannochy Br	NO 583593	487.0	VA	1979–82		861		1063	82	679	81	13.30	1.98	08/81		26.8	2.25
013004	Prosen Water	Prosen Bridge	NO 396586	104.0	VA	1985–90	1224	905	319	1135	88	698	89	2.98	0.54	07/89		6.0	0.66
013005	Lunan Water	Kirkton Mill	NO 655494	124.0	VA	1981–90	*777*	416	361	625	85	158	89	1.64	0.15	07/89		3.6	0.18
013007	North Esk	Logie Mill	NO 699640	730.0	VA	1976–90	1130	838	292	1077	82	477	89	19.40	2.55	08/76		39.4	3.04
013008	South Esk	Brechin	NO 600596	490.0	VA	1983–90	1134	765	369	956	84	535	89	11.89	1.40	08/84		24.2	2.01
013009	West Water	Dalhousie Bridge	NO 592680	127.2	VA	1986–90	1063	858	205	1187	88	591	89	3.46	0.67	07/89		6.9	0.78
013010	Brothock Water	Brothock Bridge	NO 639418	50.0		1989–90		172		211	90	132	89	0.27	0.08	09/89		0.5	0.08
014001	Eden	Kemback	NO 415158	307.4	VA	1967–90	789	390	399	574	85	148	73	3.80	0.75	09/73	40.1	8.0	0.92
014002	Dighty Water	Balmossie Mill	NO 477324	126.9	VA	1969–90	774	376	398	551	85	121	73	1.51	0.17	08/84		3.4	0.23
014005	Motray Water	St Michaels	NO 441224	52.0	VA	1984–90	*697*	337	360	540	85	138	89	0.56	0.06	09/90		1.2	0.08
014006	Monikie Burn	Panbride	NO 574361	16.0	VA	1987–90	765	388	377	591	88	171	89	0.20	0.01	08/89		0.4	0.01
014007	Craigmill Burn	Craigmill	NO 575360	29.0	VA	1987–90		312		461	88	141	89	0.29	0.02	07/89		0.6	0.03
015001 *	Isla	Forter	NO 187647	70.7	FL	1953..68	1405	1207	198	1496	62	752	64	2.71	0.66	07/64	46.9	5.2	0.74
015002 *	Newton Burn	Newton	NO 230605	15.4	TP	1959..68	1303	997	306	1392	60	696	64	0.49	0.14	08/68	7.4	1.0	0.14
015003	Tay	Caputh	NO 082395	3211.0	VA	1947–90	1609	1332	277	**1850**	**90**	883	55	135.60	9.60	08/55	780.5	265.5	35.75
015004 *	Inzion	L of Lintrathen	NO 280559	24.7	TP	1927..68	1115	710	405	1052	60	499	64	0.56	0.09	08/33	6.3	1.1	0.13
015005 *	Melgan	L of Lintrathen	NO 275558	40.9	TP	1927..68	1151	767	384	1164	28	561	64	1.00	0.07	09/68	15.4	2.1	0.24
015006	Tay	Ballathie	NO 147367	4587.1	VA	1952–90	1440	1114	326	**1479**	**90**	738	55	162.10	14.70	08/55	955.6	317.1	43.32
015007	Tay	Pitnacree	NN 924534	1149.4	VA	1957–90	1904	1522	382	**2147**	**90**	1152	73	55.49	4.32	08/84	333.5	110.7	12.84
015008	Dean Water	Cookston	NO 340479	177.1	VA	1958–90	842	457	385	673	60	189	73	2.57	0.50	08/84	30.1	5.4	0.59
015010	Isla	Wester Cardean	NO 295466	366.5	VA	1972–90	1108	651	457	919	82	349	73	7.56	**1.25**	**07/89**	102.3	15.8	1.51
015011	Lyon	Comrie Bridge	NN 786486	391.1	VA	1958–90	*2017*	964	1053	1602	58	672	73	11.96	2.22	08/84		26.7	2.98
015012	Tummel	Port-na-craig	NN 940577	1649.0	VA	1973–90	1566	1382	184	**1713**	**90**	1050	73	72.24	17.50	08/84		144.8	18.86
015013	Almond	Almondbank	NO 067258	174.8	VA	1955–90	1445	942	503	1522	61	489	73	5.22	0.37	08/84	103.8	11.6	0.71
015014	Ardle	Kindrogan	NO 056631	103.0	VA	1985–90	1300	964	336	1060	90	792	87	3.15	0.30	07/89		7.3	0.47
015015	Almond	Newton Bridge	NN 888316	84.0	VA	1986–90	1774	1212	562	1479	90	892	87	3.23	0.39	07/89		7.1	0.52
015016	Tay	Kenmore	NN 782467	600.9	VA	1974–90	2201	2453		**3025**	**90**	**1904**	**87**	46.74	2.07	08/84	167.1	99.6	6.29
015017 *	Braan	Ballinloan	NN 979406	197.0	VA	1975–80	1383	959	424	1058	77	914	80	5.99	0.36	07/77	123.2	15.6	0.38
015018 *	Lyon	Moar	NN 534448	161.4	VA	1953–58	*2077*	1983	94	2853	54	1500	55	10.15	0.51	08/55		26.1	0.66
015021	Lunan Burn	Mill Bank	NO 182400	94.0	VA	1986..90	931	484	447	660	88	327	89	1.44	0.12	07/89		3.1	0.15
015023	Braan	Hermitage	NO 014422	210.0	VA	1983–90	1558	1070	488	1245	88	820	87	7.12	0.26	08/84		16.6	0.52
015024	Dochart	Killin	NN 567320	239.0	VA	1982..90	*2831*	2132	699	2681	90	1552	87	16.16	0.95	08/83		42.9	1.02
015025	Ericht	Craighall	NO 174472	432.0	VA	1985–90	1250	925	325	1081	88	746	87	12.67	1.29	07/89		28.1	2.00
015027	Garry Burn	Loakmill	NO 075339	20.0	VA	1987–90	*1076*	626	450	798	88	520	89	0.40	0.02	07/89		0.9	0.04
015028	Ordie Burn	Luncarty	NO 093306	54.0	VA	1986..90	1080	634	446	754	88	531	87	1.09	0.09	09/86		2.4	0.10
016001	Earn	Kinkell Bridge	NN 933167	590.5	VA	1948..90	1496	1148	348	1628	48	696	55	21.50	1.09	08/55	189.1	47.6	2.95
016002 *	Earn	Aberuchill	NN 754216	176.9	VA	1955–77	1699	1804		2406	61	1292	56	10.12	1.10	06/57	60.5	24.2	1.27
016003	Ruchill Water	Cultybraggan	NN 764204	99.5	VA	1970–90	2019	1565	454	2087	82	1040	73	4.94	0.16	08/84	168.3	12.5	0.34
016004	Earn	Forteviot Bridge	NO 043184	782.2	VA	1972..90	1460	1106	354	**1367**	**88**	625	73	27.44	2.46	08/84	229.7	62.6	3.46

Hydrometric Statistics

		Period	Rainfall (mm)	% of pre-1986	Runoff (mm)	% of pre-1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
007003	**Lossie at Sheriffmills** C.A: 216.0 km²	**63-85**	**830**		**383**		**2.62**	**89.8**	**17/08**	**0.36**	**26/08**	**5.1**	**1.63**	**0.70**
M.A: NERPB	Level: 18m Local Number:								**1970**		**1976**			
F.A.R: P	B.F.I: .52 Sensitivity: 10.6	1986	728	88										
Comment: Cableway rated. The main control is a long and insensitive stone weir 350m d/s. Site moved 150m u/s in September 1978. Levels recorded from 20/06/58, flows from 01/10/63. Flood warning station. Glentatterach Res. provides supply for Elgin. Abstraction has moderate impact on flows - around 20% of the 95% exceedance flow. # Schists, gneisses and valley gravels with some Old Red Sandstone. Moorland, substantial afforestation in headwaters and arable in valley bottoms.		1987	853	103											
		1988	919	111	463	121	3.16	54.4	25/01	0.88	30/06	6.2	1.91	1.08
		1989	643	77	241	63	1.65	33.7	12/05	0.59	20/09	2.7	1.12	0.65
		1990	941	113	377	98	2.58	63.7	28/10	0.64	02/08	5.6	1.62	0.72
008002	**Spey at Kinrara** C.A: 1011.7 km²	**51-85**	**1292**		**653**		**20.95**	**317.0**	**18/12**	**2.43**	**30/08**	**40.7**	**15.19**	**5.96**
M.A: NERPB	Level: 210m Local Number:								**1966**		**1984**			
F.A.R: H	B.F.I: .57 Sensitivity: 7.3	1986	1597	124	816	125	26.18	143.3	08/12	4.57	18/07	56.6	17.55	5.68
Comment: Cableway rated to bankfull, natural control; frequent rating changes. Station is 5km downstream of confluence with River Feshie. Well inlet pipes, fractured in early 1960s (giving some data problems), re-laid March 1987. 380 sq. km. developed for hydro-power with diversions and storage; substantial net export. # Moinian metamorphic and granites. High mountain and moorland, some forestry and valley grazing.		1987	1101	85	574	88	18.41	86.4	31/12	6.60	15/12	32.1	15.34	8.75
		1988	1436	111	755	116	24.15	128.6	09/10	3.77	30/06	41.4	20.82	5.87
		1989	1484	115	743	114	23.83	266.8	15/01	3.95	24/07	51.1	14.72	4.55
		1990	1790	139	1082	166	34.73	291.0	05/02	4.91	05/08	96.7	17.77	6.27
008004	**Avon at Delnashaugh** C.A: 542.8 km²	**52-85**	**1079**		**858**		**14.76**	**525.0**	**17/08**	**1.93**	**17/02**	**27.8**	**10.62**	**4.07**
M.A: NERPB	Level: 150m Local Number:								**1970**		**1955**			
F.A.R: N	B.F.I: .56 Sensitivity:	1986	1121	104	852	99	14.67	123.3	24/12	4.18	20/10	29.6	10.46	4.62
Comment: Velocity-area station with cableway, natural control; unstable rating. Lowest levels not recorded 1981-84 (fell below inlet pipe). Rating liable to change after major floods. Improved hydrometric performance following station reconstruction (1985). Catchment rainfall is probably underestimated. # Gneisses and metamorphosed limestone with some igneous, some sandstone. Mountain catchment draining the north side of the highest Cairngorm peaks with moorland and rough grazing, a little arable farming in valley bottom.		1987	991	92	820	96	14.11	144.2	01/03	4.85	14/12	25.0	10.64	6.33
		1988	1156	107	917	107	15.74	162.0	20/08	4.47	30/06	30.0	11.61	6.07
		1989	834	77	513	60	8.83	167.5	05/03	2.68	14/12	15.9	6.87	3.44
		1990	1082	100	773	90	13.31	260.7	28/10	3.99	02/08	25.7	9.31	4.59
008005	**Spey at Boat of Garten** C.A: 1267.8 km²	**51-85**	**1241**		**700**		**28.16**	**373.6**	**18/12**	**4.08**	**06/09**	**52.7**	**21.52**	**9.03**
M.A: NERPB	Level: 197m Local Number:								**1966**		**1976**			
F.A.R: H	B.F.I: .61 Sensitivity: 6.0	1986	1510	122	785	112	31.54	135.9	08/12	5.34	19/07	67.8	23.05	7.08
Comment: Cableway rated with natural control, relatively frequent rating changes. 380 sq. km. developed for hydro-power with diversions and storage; substantial net export. # Granites and Moinian metamorphics. High mountain, moorland, some forestry, pastoral and some arable farming.		1987	1069	86	582	83	23.40	91.6	31/12	9.41	14/12	39.0	20.93	11.93
		1988	1376	111										
		1989	1399	113	661	94	26.56	256.7	15/01	5.35	24/07	52.7	18.77	6.24
		1990	1696	137	1059	151	42.58	319.8	24/02	7.43	04/08	113.3	24.70	9.90
008006	**Spey at Boat o Brig** C.A: 2861.2 km²	**52-85**	**1102**		**710**		**64.41**	**1675.0**	**17/08**	**9.31**	**16/08**	**120.6**	**49.68**	**19.18**
M.A: NERPB	Level: 43m Local Number:								**1970**		**1955**			
F.A.R: H	B.F.I: .61 Sensitivity: 3.9	1986	1214	110	738	104	66.93	392.4	14/01	19.96	21/07	126.8	54.53	22.27
Comment: Lowest station currently operating on the Spey. Cableway rated 65m wide section with natural control, (limited stability) extreme floods bypass station on left bank. 380 sq. km. developed for hydro-power with diversions and storage; limited net impact on annual runoff (small loss). # Mainly granites and Moinian metamorphics. Some Dalradian and a little Old Red Sandstone. Mountain (includes all northern slopes of Cairngorms) moorland, hill grazing and some arable. Forestry.		1987	988	90	654	92	59.30	337.1	27/03	24.11	14/12	94.3	50.35	32.14
		1988	1202	109	773	109	69.92	383.9	09/10	17.73	30/06	120.4	60.39	24.98
		1989	1056	96	577	81	52.33	335.0	15/01	15.19	04/08	108.1	39.77	16.37
		1990	1359	123	852	120	77.34	649.0	06/02	16.78	04/08	175.1	51.45	19.94
008007	**Spey at Invertruim** C.A: 400.4 km²	**52-85**	**1439**		**446**		**5.66**	**274.5**	**02/03**	**0.42**	**06/09**	**9.7**	**3.81**	**1.59**
M.A: NERPB	Level: 243m Local Number:								**1979**		**1976**			
F.A.R: H	B.F.I: .52 Sensitivity: 8.0	1986	1795	125	482	108	6.12	128.7	22/03	0.91	15/07	12.2	3.10	1.18
Comment: Highest station on the Spey. Cableway rated 50m wide section with natural control; frequent rating changes. 200.4 sq. km. developed for hydro-power by British Aluminium, 86.4 sq. km. developed by Scottish Electric plc (total 72%); diversions and storage influence regime, major reduction in runoff. # Granite and Moinian metamorphic. Mountain, moorland, pastoral.		1987	1209	84	310	70	3.94	52.3	31/12	1.27	14/12	6.4	3.26	1.89
		1988	1609	112	426	96	5.39	67.7	25/10	0.95	25/06	8.8	4.12	1.46
		1989	1762	122	518	116	6.58	264.5	15/01	0.89	20/07	12.5	3.11	1.24
		1990	2164	150	876	196	11.12	269.1	04/02	1.20	28/07	28.9	4.11	1.65
008008	**Tromie at Tromie Bridge** C.A: 130.3 km²	**52-85**	**1387**		**580**		**2.40**	**117.4**	**28/09**	**0.35**	**05/08**	**3.4**	**1.74**	**1.18**
M.A: NERPB	Level: 240m Local Number:								**1961**		**1955**			
F.A.R: H	B.F.I: .64 Sensitivity: 7.4	1986			658	113	2.72	80.9	07/12	1.11	08/10	5.6	1.61	1.21
Comment: Cableway rated with natural control; frequent rating changes. Very turbulent flow. Large proportion (>70%) of catchment developed for hydro-power with major diversions out of the catchment. # Mountain, moorland, pastoral.		1987			393	68	1.63	20.1	31/12	0.93	31/01	2.4	1.36	1.10
		1988			528	91	2.18	31.7	25/10	1.19	28/06	3.3	1.62	1.24
		1989			614	106	2.54	83.8	15/01	0.66	05/09	3.8	1.62	0.95
		1990			1045	180	4.32	**133.5**	**04/02**	1.20	12/05	10.7	1.70	1.29
008009	**Dulnain at Balnaan Bridge** C.A: 272.2 km²	**52-85**	**1008**		**682**		**5.89**	**230.0**	**17/08**	**0.60**	**23/07**	**12.5**	**3.75**	**1.14**
M.A: NERPB	Level: 224m Local Number:								**1970**		**1955**			
F.A.R: N	B.F.I: .46 Sensitivity: 8.8	1986	1000	99	716	105	6.18	107.7	09/11	1.13	21/07	13.1	3.92	1.32
Comment: Cableway rated with natural control, subject to relatively frequent change but generally good low flow calibration. Natural regime, not affected by diversions or storages. # Granites and Moinian metamorphic. Highland, moorland and pastoral.		1987	844	84	596	87	5.15	47.1	31/03	1.49	13/12	10.1	3.47	1.91
		1988	1032	102	762	112	6.56	64.4	07/10	1.05	29/06	14.1	4.60	1.35
		1989	891	88	610	89	5.26	104.1	14/01	0.75	14/12	12.8	2.89	0.91
		1990	1328	132	912	134	7.87	166.7	04/02	1.08	03/08	18.7	4.39	1.30
008010	**Spey at Grantown** C.A: 1748.8 km²	**53-85**	**1151**		**661**		**36.67**	**461.3**	**19/12**	**6.01**	**07/09**	**70.6**	**28.17**	**10.77**
M.A: NERPB	Level: 193m Local Number:								**1966**		**1976**			
F.A.R: H	B.F.I: .60 Sensitivity: 5.9	1986	1363	118	740	112	41.03	198.5	14/01	7.94	20/07	82.8	31.62	10.49
Comment: Cableway rated with natural control. Improved data quality following move of recorder and cableway to a united site (NJ 033268) in mid-1987. 22% of catchment developed for hydro-power with diversions and storage; significant net export. # Granites and Moinian metamorphic. Mountain, high moorland, forestry, pastoral and arable in valley bottoms.		1987	1011	88	563	85	31.25	125.4	31/12	12.04	14/12	52.2	27.00	15.08
		1988	1279	111	705	107	39.01	209.4	09/10	8.24	30/06	67.3	33.78	11.68
		1989	1250	109	628	95	34.82	358.5	16/01	7.65	14/12	72.3	22.61	8.36
		1990	1566	136	933	141	51.77	**527.6**	**06/02**	9.40	04/08	130.0	30.29	11.62
008011	**Livet at Minmore** C.A: 104.0 km²	78..85			742		2.45	60.2	13/10	0.63	04/08	4.5	2.04	0.79
M.A: NERPB	Level: m Local Number:								1982		1982			
F.A.R: N	B.F.I: .65 Sensitivity:	1986	991		636	86	2.10	31.4	10/06	0.84	28/02	3.9	1.56	0.95
Comment: Velocity-area station with boulder/rubble control (remnant of an old weir); good low flow calibration. Tapping pipe shortened in 1986 to avoid velocity drawdown. Natural regime, no significant abstractions. # Upland catchment. Moorland with some afforestation developed on complex basement geology metamorphics and igneous; some superficial cover.		1987	922		680	92	2.24	21.7	18/07	0.99	04/10	3.8	1.78	1.10
		1988	1063		735	99	2.42	20.3	09/10	0.84	08/08	4.7	1.78	0.90
		1989	719		380	51	1.25	17.6	28/02	0.40	14/12	1.9	1.04	0.62
		1990	1024		552	74	1.82	33.0	28/10	0.63	25/01	3.4	1.25	0.71
009001	**Deveron at Avochie** C.A: 441.6 km²	**59-85**	**1005**		**643**		**9.00**	**236.5**	**17/08**	**1.30**	**26/08**	**16.9**	**6.35**	**2.29**
M.A: NERPB	Level: 82m Local Number:								**1970**		**1976**			
F.A.R: N	B.F.I: .59 Sensitivity: 9.0	1986	888	88	531	83	7.43	109.3	10/06	2.54	27/07	14.9	5.13	2.78
Comment: Cableway rated with stable rubble weir, rather insensitive. Inlet pipes periodically silted in early 1980s - extended in March 1985. No artificial influences on flow. # Complex granites and basic intrusive with Dalradian metamorphic. Moorland, pastoral and arable in valley, Huntly is the only substantial settlement.		1987	965	96	614	95	8.59	93.5	27/03	3.06	04/10	17.2	6.40	3.44
		1988	1089	108	692	108	9.67	82.5	19/10	2.65	08/08	19.9	6.81	3.09
		1989	642	64	289	45	4.05	70.1	12/05	1.70	20/09	5.8	3.42	1.85
		1990	938	93	465	72	6.51	134.1	28/10	1.90	19/09	12.0	4.27	2.19

		Period	Rainfall (mm)	% of pre-1986	Runoff (mm)	% of pre-1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
009002	**Deveron at Muiresk** C.A: 954.9 km²	**60-85**	**932**		**555**		**16.80**	**506.6**	**06/05**	**2.06**	**27/08**	**33.1**	**11.63**	**3.63**
M.A: NERPB	Level: 25m Local Number:								**1968**		**1976**			
F.A.R: N	B.F.I: .58 Sensitivity: 6.6	1986	822	88	477	86	14.43	162.6	10/06	3.67	21/07	29.1	10.47	4.43
Comment: Cableway rated, natural control, water abstraction point immediately downstream. No visible effect on level records. Floodplain flows have been measured at this site. # Complex granite and older basic intrusive with Dalradian metamorphic. Some Old Red Sandstone. Some high moorland, mainly pastoral and arable.		1987	932	100										
		1988	990	106	631	114	19.07	196.9	25/01	4.59	08/08	38.6	14.13	5.31
		1989	610	65	249	45	7.53	113.1	12/05	2.60	21/09	11.8	6.09	2.96
		1990	894	96	426	77	12.90	313.5	28/10	3.13	15/09	25.4	7.97	3.60
009003	**Isla at Grange** C.A: 176.1 km²	**69..85**	**857**		**475**		**2.65**	**62.7**	**29/01**	**0.28**	**26/08**	**5.5**	**1.71**	**0.56**
M.A: NERPB	Level: 92m Local Number:								**1978**		**1976**			
F.A.R: N	B.F.I: .54 Sensitivity: 8.4	1986	796	93	441	93	2.46	**63.5**	**10/06**	0.66	28/07	4.4	1.48	0.82
Comment: Velocity-area station with cableway. Problems with weed growth prior to 1969. NERPB has operated the station since 1978. Sensibly natural regime. # Compact, upland catchment. Mainly Moinian metamorphic, small amounts of intrusive basic. Some forestry, mainly pastoral and arable.		1987	936	109	577	121	3.22	**73.4**	**27/03**	0.98	09/07	6.0	2.02	1.06
		1988	952	111	533	112	2.97	69.4	25/01	0.69	08/08	5.6	1.99	0.82
		1989	624	73	231	49	1.29	37.0	13/05	0.44	20/09	1.9	1.00	0.49
		1990	881	103	393	83	2.20	**94.1**	**28/10**	0.46	19/09	4.2	1.27	0.60
009004	**Bogie at Redcraig** C.A: 179.0 km²	**80-85**			**626**		**3.56**	**45.6**	**13/10**	**0.69**	**30/08**	**6.7**	**2.85**	**0.91**
M.A: NERPB	Level: 120m Local Number:								**1982**		**1984**			
F.A.R: N	B.F.I: .71 Sensitivity:	1986	844		463	74	2.63	17.6	14/01	0.99	01/12	5.0	1.98	1.04
Comment: Velocity-area station with broken rubble weir control; stable. Cableway rated. Good low flow calibration. Gaugeboard read record for downstream site, 1973-81. Natural regime, no abstractions. # Geology: Dalradian metamorphic but large areas of Old Red Sandstone. Some high moorland, pastoral and arable in valleys.		1987	963		529	85	3.00	19.1	27/03	1.18	04/10	5.4	2.46	1.32
		1988	1068		591	94	3.35	19.5	25/01	1.07	27/07	6.4	2.69	1.21
		1989	623		236	38	1.34	12.5	12/05	0.68	19/09	2.0	1.20	0.73
		1990	904		352	56	2.00	25.8	28/10	0.74	14/09	3.7	1.38	0.82
009005	**Allt Deveron at Cabrach** C.A: 67.0 km²	**48..85**			**744**		**1.58**	**37.7d**	**29/07**	**0.25**	**08/10**	**3.1**	**0.97**	**0.44**
M.A: GRWD	Level: 288m Local Number:								**1958**		**1959**			
F.A.R: N	B.F.I: .50 Sensitivity: 4.4	1986	985		667	90	1.42	28.4	10/06	0.42	14/02	2.8	0.93	0.49
Comment: Compound broad-crested weir (no divide piers). Current meter rating from 1984 (when NERPB took over the station from Grampians R.C.), earlier record is of inconsistent quality - faulty recorder operation. Overspill onto right-bank floodplain during high flows. Natural regime (proposed abstraction by GRC never materialised). # Rugged topography. Mostly moorland developed on complex basement geology - principally metamorphics.		1987	972		743	100	1.58	25.7	18/07	0.59	04/10	3.1	1.05	0.65
		1988	1147		852	115	1.80	23.4	19/10	0.43	27/09	4.2	1.11	0.50
		1989	674		395	53	0.84	20.7	12/05	0.32	13/12	1.2	0.62	0.38
		1990	995		606	81	1.29	**38.4**	**28/10**	0.32	25/01	2.7	0.72	0.42
010002	**Ugie at Inverugie** C.A: 325.0 km²	**71-85**	**819**		**457**		**4.71**	**99.3**	**04/11**	**0.74**	**27/08**	**9.5**	**3.42**	**1.03**
M.A: NERPB	Level: 9m Local Number:								**1984**		**1976**			
F.A.R: N	B.F.I: .64 Sensitivity:	1986	692	84	396	87	4.08	41.5	01/01	1.24	09/09	7.9	2.94	1.36
Comment: Cableway rated. Controlled by long and broken weir, unstable and insensitive, Severe weedgrowth also, hence complicated history of rating changes. Very minor export from headwater reservoir but sensibly natural regime. # Granites and older basic intrusive surrounded by Dalradian metamorphic. A little moorland, but mostly lowland in character with arable agriculture and relatively high population density.		1987	861	105	526	115	5.42	40.3	11/04	1.95	23/08	10.2	4.07	2.06
		1988	853	104	512	112	5.26	66.4	25/01	1.58	08/08	9.4	4.05	1.92
		1989	510	62	201	44	2.07	19.2	17/12	0.89	04/08	3.2	1.75	0.98
		1990	760	93	326	71	3.36	35.7	29/10	0.80	15/09	6.6	2.21	0.98
010003	**Ythan at Ellon** C.A: 523.0 km²	83-85	*1031*		563		9.34	94.4	04/11	0.94	30/08	20.0	8.72	1.53
M.A: NERPB	Level: m Local Number:								1984		1984			
F.A.R:	B.F.I: .74 Sensitivity: 7.1	1986	718	70	387	69	6.41	44.5	10/01	1.92	16/10	12.9	4.25	2.14
Comment: Velocity-area station, replacement for 10001. Some bypassing on left bank during extreme flows. # A relatively low lying catchment developed on impermeable metamorphic formations. Land use is predominately agricultural.		1987	838	81	505	90	8.37	55.9	11/04	2.95	03/10	15.5	7.11	3.18
		1988	859	83	534	95	8.83	85.5	25/01	2.44	08/08	17.1	7.34	2.79
		1989	493	48	169	30	2.80	14.0	17/12	1.14	04/08	4.7	2.49	1.31
		1990	767	74	262	47	4.34	35.9	18/11	1.15	20/09	8.9	2.78	1.45
011001	**Don at Parkhill** C.A: 1273.0 km²	**69-85**	**905**		**514**		**20.76**	**277.4**	**17/08**	**3.91**	**27/08**	**41.9**	**15.41**	**5.32**
M.A: NERPB	Level: 32m Local Number:								**1970**		**1976**			
F.A.R: N	B.F.I: .68 Sensitivity: 6.8	1986	787	87	441	86	17.81	93.3	15/01	5.61	23/10	35.9	14.05	6.36
Comment: Lowest of the three gauging stations on the Don. Cableway rated with natural control. Complex rating history. Weed growth is a problem during the summer half-year. Flow records for 1969-86 reprocessed in 1987; significant revisions in the high and low flow range. Natural regime. # Mainly Dalradian metamorphic with large amounts of basic intrusive and a small pocket of Old Red Sandstone. High moorland, forestry, pastoral and arable in lower valleys.		1987	858	95	484	94	19.54	90.2	18/07	6.80	03/10	35.7	16.41	7.79
		1988	989	109	601	117	24.20	155.4	25/01	6.99	30/06	46.9	18.79	8.23
		1989	561	62	219	43	8.83	57.1	06/03	**3.55**	**15/12**	13.3	7.91	4.31
		1990	801	89	315	61	12.72	113.2	29/10	4.06	20/09	24.1	8.54	4.65
011002	**Don at Haughton** C.A: 787.0 km²	**69-85**	**935**		**590**		**14.72**	**322.8**	**13/10**	**2.85**	**27/08**	**29.4**	**10.82**	**3.97**
M.A: NERPB	Level: 55m Local Number:								**1982**		**1976**			
F.A.R: N	B.F.I: .68 Sensitivity: 4.7	1986	821	88	495	84	12.34	79.3	14/01	4.32	17/10	24.1	9.68	4.71
Comment: Cableway rated, natural control. Flow records from 1/07/69. Continuous recording since 1971. Transferred from Grampian R.C. in 1984. Levels can be affected by ice. High flows 1969-83 reprocessed in 1986. Natural regime. # Mainly Dalradian metamorphic with large amounts of basic intrusive and a small pocket of Old Red Sandstone. High moorland, forestry, pastoral and arable in lower valleys.		1987	870	93	516	87	12.88	77.1	18/07	5.08	04/10	21.6	10.64	5.73
		1988	1035	111	663	112	16.50	99.6	19/10	5.19	29/06	31.3	13.18	6.06
		1989	596	64	268	45	6.68	52.9	06/03	**2.43**	**15/12**	10.5	5.91	3.32
		1990	833	89	372	63	9.28	112.4	29/10	2.83	19/09	17.9	8.43	3.38
011003	**Don at Bridge of Alford** C.A: 499.0 km²	**73-85**	**1035**		**693**		**10.96**	**201.0**	**15/10**	**2.12**	**26/08**	**20.7**	**8.54**	**3.15**
M.A: NERPB	Level: 133m Local Number:								**1976**		**1976**			
F.A.R: N	B.F.I: .68 Sensitivity: 6.0	1986	877	85	568	82	8.98	67.2	14/01	3.16	22/10	17.3	6.91	3.48
Comment: Most upstream station on the Don. Cableway rated. Stable natural control with few changes in rating since flow records began in 1973. Natural regime. # Mainly Dalradian metamorphic, some older basic intrusive and a small pocket of Old Red Sandstone. High moorland, forestry, hill grazing and some arable in the valley bottom.		1987	905	87	577	83	9.13	66.2	18/07	3.93	25/09	15.7	7.65	4.14
		1988	1088	105	732	106	11.55	71.8	19/10	4.08	29/06	21.8	9.22	4.42
		1989	641	62	331	48	5.24	51.4	06/03	**1.76**	**15/12**	8.3	4.61	2.68
		1990	892	86	446	64	7.05	102.0	28/10	2.65	19/09	13.0	4.95	2.96
012001	**Dee at Woodend** C.A: 1370.0 km²	**29-85**	**1119**		**838**		**36.40**	**1133.0**	**24/01**	**3.54**	**27/08**	**72.6**	**25.53**	**8.40**
M.A: NERPB	Level: 71m Local Number:								**1937**		**1976**			
F.A.R: N	B.F.I: .54 Sensitivity: 5.1	1986	1231	110	902	108	39.19	288.9	07/12	6.34	17/10	88.7	27.07	7.65
Comment: Cableway rated, fairly stable natural control. Present station, built in 1972, replaced earlier station (flow records from 1929, chart records from 1934) on same reach (Cairnton; c/m measurements at Woodend) - established by Capt. McClean. Earlier staff gauge record dates from 1911. No regulation, little natural storage, minor abstractions. # Dalradian and Moinian metamorphic along most of the valley, flanked by igneous intrusive. Mountain, moorland, forestry, pastoral and some arable in the valley bottom.		1987	976	87	724	86	31.47	270.1	18/10	10.73	14/12	52.1	24.58	13.75
		1988	1219	109	944	113	40.88	439.9	26/10	7.52	30/06	69.7	34.70	13.73
		1989	932	83	611	73	26.55	318.8	06/03	5.07	04/08	53.6	21.03	5.77
		1990	1130	101	834	100	36.24	619.3	04/02	7.04	04/08	74.4	25.29	8.51
012002	**Dee at Park** C.A: 1844.0 km²	**72-85**	*1119*		**795**		**46.48**	**922.4**	**13/10**	**3.66**	**27/08**	**98.5**	**33.13**	**8.14**
M.A: NERPB	Level: 23m Local Number:								**1982**		**1976**			
F.A.R: PN	B.F.I: .54 Sensitivity: 5.5	1986	1167	104	822	103	48.05	350.7	07/12	6.98	17/10	102.4	35.01	8.64
Comment: Cableway rated, unstable natural control causing frequent changes in rating. Abstraction for public supply of approximately 0.7 m^3s^{-1} between Woodend (12001) and Park (accounts for almost 10% of Q95 flow). # Dalradian and Moinian metamorphic along most of the valley, flanked by igneous intrusive. Mountain, moorland, forestry, pastoral and some arable in the valley bottom.		1987	970	87	686	86	40.12	412.3	18/10	11.99	14/12	67.4	31.51	16.82
		1988	1196	107	892	112	52.02	634.3	26/10	8.59	30/06	97.3	43.61	15.68
		1989	879	79	531	67	31.04	330.5	06/03	6.61	04/08	64.5	24.51	7.19
		1990	1068	95	719	90	42.03	687.3	04/02	7.57	04/08	86.8	29.68	8.79

		Period	Rainfall (mm)	% of pre-1986	Runoff (mm)	% of pre-1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
012003	**Dee at Polhollick** C.A: 690.0 km²	**75-85**	*1434*		**1049**		**22.96**	**380.0**	**17/10 1982**	**2.10**	**01/09 1983**	**49.3**	**16.03**	**4.37**
M.A: NERPB	Level: 217m Local Number:													
F.A.R: N	B.F.I: .51 Sensitivity: 7.3	1986	1472	103	1153	110	25.22	216.8	22/03	4.16	17/10	57.1	15.29	4.92
Comment: Velocity-area station, cableway rated with natural control. Natural flow regime. # Dalradian and Moinian metamorphic with basic intrusions. Mountain, moorland and pastoral.		1987	1087	76	900	86	19.69	194.4	18/10	7.01	13/12	34.4	14.72	8.33
		1988	1366	95	1150	110	25.10	290.2	26/10	4.75	30/06	44.3	20.47	8.57
		1989	1149	80	842	80	18.43	249.1	06/03	2.41	15/12	37.2	13.40	3.45
		1990	1333	93	1142	109	24.98	**469.2**	**04/02**	4.35	04/08	53.7	15.85	5.36
012004	**Girnock Burn at Littlemill** C.A: 30.3 km²	**69..85**	*1196*		**521**		**0.50**	**22.9**	**11/01 1974**			**1.0**	**0.29**	**0.04**
M.A: SOAFD	Level: 245m Local Number:													
F.A.R: N'	B.F.I: .40 Sensitivity:	1986	1133	95	633	121	0.61	22.3	09/01	0.04	26/07	1.5	0.30	0.07
Comment: Rated by wading, natural control. Station operated by Scottish Office Environment Department and looked after by local staff with fishery research interests. # High moorland, pastoral. Dalradian and older basic intrusive rocks.		1987	903	76	484	93	0.46	17.2	18/07	0.07	14/08	0.9	0.29	0.09
		1988	1133	95	674	129	0.65	**31.8**	**25/10**	0.04	28/06	1.4	0.37	0.08
		1989	830	69										
		1990	1023	86										
012005	**Muick at Invermuick** C.A: 110.0 km²	**76-85**	*1446*		**1075**		**3.75**	**470.6**	**02/10 1981**	**0.29**	**03/12 1977**	**7.4**	**2.49**	**0.60**
M.A: NERPB	Level: 201m Local Number:													
F.A.R: N	B.F.I: .53 Sensitivity: 9.0	1986	1436	99	1103	103	3.85	43.9	07/12	0.42	20/10	9.3	2.40	0.61
Comment: Cableway rated, natural control. Problems with silting in the well (until 1980) and, in cold winters, with ice. Natural regime - no abstractions. # Dalradian intrusive basic. Pastoral and mountain moorland.		1987	1126	78	834	78	2.91	47.1	18/10	0.85	11/08	5.1	2.14	1.04
		1988	1362	94	1114	104	3.87	103.4	25/10	0.65	30/06	6.8	3.12	1.15
		1989	1039	72	722	67	2.52	40.7	24/12	0.34	04/08	4.8	2.00	0.46
		1990	1257	87	927	86	3.23	62.3	04/02	0.45	14/08	6.6	2.00	0.59
012006	**Gairn at Invergairn** C.A: 150.0 km²	**78-85**	*1089*		**907**		**4.31**	**95.1**	**02/10 1981**	**0.45**	**04/08 1982**	**8.7**	**3.09**	**0.78**
M.A: NERPB	Level: 218m Local Number:													
F.A.R: N	B.F.I: .55 Sensitivity: 8.9	1986	984	90	760	84	3.62	36.6	14/01	0.81	17/10	7.5	2.45	0.87
Comment: Velocity-area station with cableway, natural control includes rubble from early gabion construction (broken up by spate of Nov. 1978). Good site for low flow measurement. Sensibly natural regime. Catchment rainfall may be underestimated. # Some Dalradian metamorphic, mainly granite intrusive. Pastoral and mountain moorland.		1987	835	77	686	76	3.26	25.3	01/03	1.18	04/10	6.0	2.47	1.38
		1988	1066	98	884	97	4.19	31.7	25/10	0.86	30/06	7.9	3.33	1.41
		1989	721	66	492	54	2.34	36.6	05/03	0.58	15/12	4.6	1.76	0.73
		1990	966	89	701	77	3.33	58.2	28/10	0.83	14/08	6.2	2.52	0.95
012007	**Dee at Mar Lodge** C.A: 289.0 km²	82-85	*1518*		1411		12.93	213.7	03/12 1985	0.67	27/08 1984	27.0	8.54	1.60
M.A: NERPB	Level: m Local Number:													
F.A.R: N	B.F.I: .47 Sensitivity: 12.5	1986	1646	108	1454	103	13.33	143.5	09/11	2.02	21/07	30.6	8.64	2.49
Comment: Highest gauging station on the Dee. Cableway rated, unstable natural control. Catchment rainfall totals may be significantly underestimated. # Dalradian and Moinian metamorphic and granite mountains. Mountain, moorland, some forestry.		1987	1204	79	1118	79	10.24	102.3	18/10	1.87	13/12	19.9	7.41	3.57
		1988	1507	99	1428	101	13.05	193.4	25/10	1.55	29/06	24.2	10.36	3.93
		1989	1344	89	1113	79	10.20	74.4d	06/03	0.69	15/12	20.6	7.69	1.72
		1990	1477	97	1525	108	13.98	307.8	04/02	2.42	03/08	27.6	9.12	3.36
012008	**Feugh at Heugh Head** C.A: 229.0 km²	85-85						271.5	30/11 1985	1.90	17/05 1985			
M.A: NERPB	Level: m Local Number:													
F.A.R: PN	B.F.I: .48 Sensitivity:	1986	1110		719		5.22	89.9	17/05	0.83	23/10	11.9	3.44	0.93
Comment: Velocity-area station with cableway. Good site for low flow measurement. Abstraction (at Charr, PWS for Stonehaven) accounts for <5% of Q95 flow. # Rugged topography; mostly moorland and upland pasture (some afforestation in Glen Dye) developed largely on granites and metamorphics.		1987	1030		760		5.52	57.3d	18/10	1.48	04/10	10.3	3.87	1.84
		1988	1262		933		6.76	164.7	25/10	0.81	30/06	13.0	4.21	1.15
		1989	826		388		2.82	77.6	12/05	0.73	18/08	5.7	1.79	0.76
		1990	998		537		3.90	90.1	28/10	0.69	22/09	8.5	2.24	0.80
013001	**Bervie at Inverbervie** C.A: 123.0 km²	**79-85**	*967*		**623**		**2.43**	**61.0**	**13/10 1982**	**0.24**	**31/08 1983**	**5.0**	**1.49**	**0.33**
M.A: NERPB	Level: 70m Local Number:													
F.A.R: N	B.F.I: .56 Sensitivity:	1986	855	88	444	71	1.73	31.6	30/12	0.37	23/10	3.4	1.34	0.39
Comment: Cableway rated. De-stabilised artificial control replaced by gabions in 1989. Extreme floods bypass the station (via the right bank floodplain). Natural flow regime. # Arable in valley, pastoral on hills and some forestry. Geology: Old Red Sandstone.		1987	880	91	532	85	2.08	23.6	10/04	0.62	18/09	3.9	1.52	0.68
		1988	993	103	612	98	2.38	42.2	25/01	0.57	30/06	4.4	1.54	0.65
		1989	642	66	225	36	0.88	25.9	16/12	0.26	09/10	1.5	0.71	0.28
		1990	761	79	301	48	1.17	25.3	25/01	0.27	22/09	2.4	0.76	0.30
013002	**Luther Water at Luther Bridge** C.A: 138.0 km²	82-85	*1119*		645		2.82	72.4	01/12 1985	0.27	08/08 1982	5.6	1.84	0.38
M.A: TRPB	Level: m Local Number: 36													
F.A.R: N	B.F.I: .59 Sensitivity: 13.0	1986	843	75	447	69	1.96	23.3	30/12	0.42	23/10	3.9	1.52	0.45
Comment: Velocity-area station with cableway. 10m wide. Situation not ideal due to bend upstream and island downstream, but stage-discharge relation is regularly reviewed using routine gaugings. Stable bedrock control at low flows. # Upper third of catchment is fairly steep (Grampian Mountains), the rest has moderate slopes. Lower 80% is on Old Red Sandstone, the rest is metamorphic. Land use - forest and rough grazing at higher levels; arable and cattle elsewhere.		1987	902	81	487	76	2.13	23.4	21/10	0.72	04/10	3.7	1.64	0.80
		1988	1031	92	572	89	2.50	40.0	19/10	0.54	29/06	4.3	1.82	0.67
		1989	651	58	237	37	1.04	23.2	16/12	0.32	12/08	1.9	0.86	0.35
		1990	759	68	301	47	1.32	16.4	25/01	0.34	14/08	2.7	0.98	0.36
013004	**Prosen Water at Prosen Bridge** C.A: 104.0 km²	85-85	1278		1029		3.39	56.6	24/08 1985	1.01	22/05 1985	6.9	2.54	1.20
M.A: TRPB	Level: m Local Number: 37													
F.A.R: N	B.F.I: .61 Sensitivity: 13.1	1986	1261	99	944	92	3.11	17.8d	07/12	0.59	17/10	6.6	2.29	0.65
Comment: Velocity-area station with cableway. 16m wide. Fairly stable rock and boulder control. Usually has significant spring snowmelt. # Metamorphic. Mostly rough grazing with about 20% forest cover.		1987	1150	90	808	79	2.66	21.3d	21/10	0.88	04/06	4.1	2.19	1.03
		1988	1412	110	1138	111	3.74	87.1	25/10	0.69	29/06	6.3	3.00	0.86
		1989	1038	81	698	68	2.30	24.2	06/03	0.46	24/07	4.6	1.73	0.52
		1990	1205	94	815	79	2.69	36.2	30/06	0.56	17/09	6.0	1.62	0.63
013005	**Lunan Water at Kirkton Mill** C.A: 124.0 km²	81-85	*1025*		501		1.97	32.4	26/09 1981	0.13	31/08 1984	4.6	1.14	0.19
M.A: TRPB	Level: m Local Number: 39													
F.A.R: I	B.F.I: .52 Sensitivity: 12.9	1986	727	71	361	72	1.42	21.2	30/12	0.23	23/10	3.0	0.93	0.24
Comment: Velocity-area station with cableway. 6m wide. Control at low and medium flows is unstable gravel bed. # A moderately sloping catchment typically rising to 250m, divided in almost equal proportions between Old Red Sandstone and igneous rocks. Land use - pasture and arable.		1987	791	77	412	82	1.62	19.6	21/10	0.29	18/09	3.1	1.07	0.33
		1988	895	87	504	101	1.98	27.3	18/04	0.28	30/06	3.9	1.29	0.39
		1989	543	53	158	32	0.62	11.8	16/12	0.11	05/08	1.4	0.41	0.14
		1990	671	65	237	47	0.93	18.4	25/01	0.14	13/08	2.2	0.50	0.16

	Period	Rainfall (mm)	% of pre-1986	Runoff (mm)	% of pre-1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
013007 North Esk at Logie Mill C.A: 730.0 km²	**76-85**	**1187**		**907**		**21.00**	**452.1**	**10/11 1984**	**2.03**	**07/09 1976**	**42.7**	**13.43**	**3.10**
M.A: TRPB Level: 11m Local Number: 48													
F.A.R: SPI B.F.I: .53 Sensitivity: 10.0	1986	1079	91	762	84	17.63	195.3	07/12	2.53	13/10	38.4	12.32	2.80
Comment: Compound Crump profile fibreglass weir, width 41m. Cableway current meter calibration used. Daily flows (based on single stage readings) from 1/76 to 4/83 derived from two nearby sites. Usually has significant spring snowmelt. Minor abstractions for PWS and irrigation. Naturalised monthly flows available 1976-87. # Drains SE flank of Grampians. Steeply sloping apart from lower 30% which is mostly Old Red Sandstone, rest is igneous and metamorphic. Rough grazing on open moorland; cattle and arable at lower levels.	1987	995	84	695	77	16.10	274.7	18/10	4.54	10/08	29.9	11.78	5.31
	1988	1215	102	957	106	22.08	452.8	25/10	3.71	30/06	39.2	16.43	4.68
	1989	822	69	477	53	11.04	137.2	06/03	2.17	04/08	23.9	8.03	2.48
	1990	979	82	622	69	14.40	195.0	04/02	2.60	04/09	32.1	9.57	2.95
013008 South Esk at Brechin C.A: 490.0 km²	83-85	1218		853		13.25	149.7	01/12 1985	1.21	26/08 1984	27.6	9.59	1.72
M.A: TRPB Level: 18m Local Number: 47													
F.A.R: I B.F.I: .58 Sensitivity: 9.4	1986	1143	94	759	89	11.80	96.3	17/05	1.85	17/10	25.2	8.97	2.00
Comment: Velocity-area station with cableway. 20m wide. High flows can cut off access to the cableway. Summer flows can be affected by agricultural abstractions. Supersedes 13003, Stannochy Bridge (1979-82), 3km u/s. Usually has significant spring snowmelt. # A long narrow catchment draining the SE flank of the Grampians. The upper 2/3 are steeply sloping. Land use is a mix of rough grazing on open moorland, forestry and, at lower levels, arable. The lower half lies on Old Red Sandstone, the rest is metamorphic.	1987	1054	87	665	78	10.34	103.1	21/10	2.63	11/08	17.9	8.24	3.48
	1988	1269	104	940	110	14.56	170.6	19/10	2.56	29/06	25.5	11.67	3.68
	1989	888	73	535	63	8.32	60.0	06/03	1.38	05/08	17.0	6.80	1.71
	1990	1067	88	665	78	10.34	102.2	04/02	2.00	11/08	22.1	6.82	2.20
013009 West Water at Dalhousie Bridge C.A: 127.2 km²													
M.A: TRPB Level: m Local Number: 50													
F.A.R: N B.F.I: .56 Sensitivity: 12.3	1986	1116		925		3.73	83.4	17/05	0.67	17/10	7.9	2.59	0.76
Comment: Velocity-area station with cableway. 20m wide. Unstable gravel control which until 1990 was affected by abstraction of gravel by farmers. Flows are natural. Significant spring snowmelt is common. # No forestry. Rough grazing. Uplands are peaty and flat. Valley sides are steep.	1987	1032		861		3.47	81.0	18/10	0.99	27/05	6.1	2.56	1.21
	1988	1272		1190		4.79	153.9	19/10	0.85	29/06	8.5	3.43	1.09
	1989	863		591		2.38	36.5	19/03	0.56	04/08	4.9	1.75	0.65
	1990	1034		727		2.93	40.5	19/02	0.73	15/09	5.8	1.84	0.79
014001 Eden at Kemback C.A: 307.4 km²	**67-85**	**785**		**392**		**3.82**	**71.3**	**11/02 1977**	**0.64**	**30/08 1973**	**8.2**	**2.42**	**0.92**
M.A: TRPB Level: 6m Local Number:													
F.A.R: SGEI B.F.I: .62 Sensitivity: 8.4	1986	813	104	417	106	4.06	33.8	09/01	1.07	23/10	8.3	3.08	1.26
Comment: Velocity-area station with cableway. 15m wide. Abstractions for irrigation; groundwater abstractions and effluent returns. Summer weed growth necessitates frequent revisions to the stage-discharge relation. # A gently sloping basin lying between the Tay and Forth estuaries. Land use is mainly arable. Very mixed geology: Old Red Sandstone along the central valley; igneous to the north; some igneous plus Carboniferous Limestone and Sandstone to the south.	1987	845	108	414	106	4.03	37.1	01/01	1.23	11/08	7.3	3.18	1.45
	1988	908	116	450	115	4.37	52.7	18/04	1.31	23/06	8.1	3.22	1.65
	1989	622	79	252	64	2.45	24.7	25/02	**0.57**	**04/08**	5.0	1.59	0.72
	1990	878	112	368	94	3.59	36.0	25/01	0.71	15/09	8.2	2.20	0.84
014002 Dighty Water at Balmossie Mill C.A: 126.9 km²	**69-85**	**780**		**384**		**1.55**	**30.7**	**23/09 1985**	**0.13**	**15/09 1975**	**3.6**	**0.85**	**0.23**
M.A: TRPB Level: 16m Local Number:													
F.A.R: SI B.F.I: .59 Sensitivity: 13.3	1986	701	90	355	92	1.43	15.1	30/12	0.25	11/10	2.9	1.11	0.29
Comment: Velocity-area station with cableway. 8m wide. Summer weed growth necessitates frequent revisions to the stage-discharge relation. Very flashy. # Gently sloping catchment except for the far north and west edges which drain the south flank of the Sidlaw Hills (up to 450m). The lower 10% is urban (Dundee), the rest mainly arable. The geology is predominantly Devonian Sandstone.	1987	841	108	434	113	1.75	17.1	21/10	0.34	11/08	3.2	1.39	0.49
	1988	959	123	516	134	2.07	19.1	18/04	0.43	30/06	4.2	1.56	0.54
	1989	540	69	190	49	0.77	12.4	25/02	**0.13**	**08/07**	1.7	0.48	0.17
	1990	728	93	252	66	1.02	8.0	24/02	0.19	11/08	2.4	0.64	0.21
014005 Motray Water at St Michaels C.A: 52.0 km²	84-85			471		0.78	11.6	23/09 1985	0.05	29/08 1984	1.7	0.49	0.09
M.A: TRPB Level: m Local Number: 3													
F.A.R: I B.F.I: .55 Sensitivity:	1986	652		308	65	0.51	3.6	11/01	0.09	26/10	1.0	0.35	0.11
Comment: Velocity-area station 4m wide. No cableway; gauged from bridge. Controls: kerbstones at low flow, channel at medium flow, bridge at high flow. Abstractions for irrigation. Also abstractions and discharges from sand and gravel workings though these have little net effect on daily means. # Geology is Old Red Sandstone and igneous. Low undulating hills to about 250m. Arable and rough grazing.	1987	767		352	75	0.58	6.4	02/01	0.13	11/08	1.2	0.43	0.15
	1988	827		395	84	0.65	5.9	18/04	0.12	24/06	1.3	0.46	0.16
	1989	509		138	29	0.23	2.9	16/12	0.06	13/09	0.5	0.15	0.07
	1990	729		224	48	0.37	7.1	25/01	0.05	29/06	0.9	0.18	0.06
014006 Monikie Burn at Panbride C.A: 16.0 km²													
M.A: TRPB Level: m Local Number:													
F.A.R: SI B.F.I: .44 Sensitivity:	1986	755											
Comment: Velocity-area station, 2.5m wide. Gauged by wading to bankfull (about 1m). Railway sleepers form the low flow control. There are problems with weed growth. Small recreational reservoirs (formerly for PWS) affect flow when being cleaned out. Agricultural abstractions can reduce flow to zero. # Low undulating catchment on Old Red Sandstone. Mainly used for arable farming.	1987	842		406		0.21	2.1d	21/10	0.03	04/08	0.5	0.13	0.04
	1988	929		593		0.30	3.9	18/04	0.02	23/06	0.7	0.18	0.03
	1989	558		171		0.09	2.5	16/12	0.00	02/08	0.2	0.05	0.01
	1990	726		382		0.19	9.7d	30/07	0.00	25/07	0.3	0.07	0.01
014007 Craigmill Burn at Craigmill C.A: 29.0 km²													
M.A: TRPB Level: m Local Number:													
F.A.R: SI B.F.I: .45 Sensitivity:	1986												
Comment: Velocity-area station. 5m wide. No cableway. Calibrated to 0.7m (medium flow). Unstable silt and gravel control. Fairly slow flows. Weed growth is a problem. Abstractions for irrigation. Recreational reservoirs (formerly PWS) affect flows when being cleaned out. # Low undulating catchment on Old Red Sandstone. Mainly used for arable farming.	1987			383		0.35	5.9	21/10	0.04	04/08	0.8	0.21	0.06
	1988			462		0.42	9.7	18/04	0.03	23/06	0.9	0.23	0.06
	1989			142		0.13	3.9	16/12	0.01	22/06	0.3	0.08	0.02
	1990			262		0.24	4.9	25/01	0.03	28/07	0.5	0.11	0.04
015003 Tay at Caputh C.A: 3211.0 km²	**47-85**	*1585*		**1303**		**132.70**	**1503.0d**	**17/02 1950**	**8.07**	**12/08 1955**	**258.9**	**103.90**	**35.56**
M.A: TRPB Level: 36m Local Number:													
F.A.R: SH B.F.I: .64 Sensitivity: 3.3	1986	1971	124	1620	124	164.97	791.8	07/12	32.68	25/09	350.2	111.86	37.38
Comment: Velocity-area station with cableway. 95m wide. 62% of catchment controlled for HEP; developed from 1930s to 1957. Substantial surface storage. Net water import. Twice daily stage readings from 7/37, continuous from 10/51. Monthly naturalised data available from 1973 to 87. Estimated flood flow for 17/2/50 (1503 m^3s^{-1}) is to be revised. # Most of catchment steep; mountains and moorland. Mainly rough grazing and forestry. Geology: mostly metamorphics and granites. Numerous lochs, largest are Ericht, Rannoch, Tummel and Tay.	1987	1343	85	1155	89	117.56	609.3	31/12	31.06	11/08	206.6	107.99	39.04
	1988	1812	114	1593	122	161.75	852.9	19/10	28.69	30/06	274.0	145.83	37.19
	1989	1789	113	1501	115	152.83	1168.2	07/02	25.82	27/07	322.3	98.11	30.10
	1990	2130	134	1850	142	188.32	**1747.4**	**04/02**	34.91	31/05	478.5	104.69	39.43
015006 Tay at Ballathie C.A: 4587.1 km²	**52-85**	**1421**		**1087**		**158.10**	**1570.0**	**30/01 1974**	**11.46**	**06/08 1955**	**307.4**	**127.60**	**42.64**
M.A: TRPB Level: 26m Local Number:													
F.A.R: SPIH B.F.I: .65 Sensitivity: 1.8	1986	1691	119	1355	125	197.10	906.1	22/03	40.74	25/09	416.4	136.88	45.50
Comment: Velocity-area station with cableway. 90m wide. The most d/s station on the Tay, records highest mean flow in UK. Since end of 1957, 1980 sq. km (43%) controlled for HEP; there was some control prior to this. 73 sq. km controlled for water supply. # Catchment is mostly steep, comprising mountains and moorland; exceptions are lower valleys. Mainly rough grazing and forestry. Geology: mainly metamorphics and granite, but lower 20% (Isla valley) is Old Red Sandstone.	1987	1227	86	988	91	143.70	718.3	31/12	40.98	11/08	242.6	131.18	49.93
	1988	1631	115	1432	132	207.70	1087.6	19/10	35.53	29/06	376.2	178.83	47.21
	1989	1509	106	1236	114	179.71	1171.7	07/02	30.54	24/07	389.7	112.74	34.90
	1990	1807	127	1479	136	215.14	**1745.8**	**05/02**	42.61	09/08	546.6	118.45	47.97
015007 Tay at Pitnacree C.A: 1149.4 km²	**57-85**	**1851**		**1470**		**53.56**	**557.0**	**18/01 1974**	**3.57**	**24/08 1984**	**105.3**	**42.63**	**12.96**
M.A: TRPB Level: 61m Local Number:													
F.A.R: H B.F.I: .64 Sensitivity: 4.4	1986	2410	130	1913	130	69.73	326.3	05/12	10.33	21/09	149.9	48.06	13.18
Comment: Velocity-area station with cableway. 70m wide. Unstable gravel bed. 293 sq. km (25% of catchment) controlled for HEP.) Naturalised monthly flows available from 1973 to 1987. # Most of the catchment is steep, comprising mountains and moorland. Land use is mainly rough grazing and forestry. Geology is almost entirely metamorphic.	1987	1565	85	1326	90	48.33	258.6	31/12	8.90	11/08	93.9	43.14	13.20
	1988	2137	115	1889	129	68.67	299.1	19/10	7.50	30/06	126.1	59.64	14.12
	1989	2187	118	1819	124	66.30	544.1	07/02	5.80	24/07	147.1	42.56	9.21
	1990	2651	143	2147	146	78.25	**668.9**	**04/02**	10.65	31/05	194.8	40.91	13.18

		Period	Rainfall (mm)	% of pre-1986	Runoff (mm)	% of pre-1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
015008	**Dean Water at Cookston** C.A: 177.1 km²	**58-85**	**856**		**465**		**2.61**	**39.9**	**23/10 1960**	**0.27**	**28/11 1973**	**5.6**	**1.63**	**0.60**
M.A: TRPB	Level: 45m Local Number:													
F.A.R: EI	B.F.I: .58 Sensitivity: 11.8	1986	755	88	432	93	2.42	28.5	09/01	0.55	16/10	5.3	1.76	0.63
Comment: Velocity-area station with cableway. 10m wide. Weed growth is a problem. The town of Forfar discharges treated effluent into Forfar Loch in the upper catchment; this is an import from the Isla. Naturalised monthly flows available 1973-87. # Gently sloping catchment except for the south which drains the north flank of the Sidlaw Hills (350m). Land use is mainly arable. Predominantly rural, but urbanised (Forfar) around the head of the main channel. Geology is nearly all Old Red Sandstone.		1987	842	98	468	101	2.63	22.9	21/10	0.73	09/09	4.9	1.98	0.81
		1988	962	112	575	124	3.22	24.0	18/04	0.61	30/06	6.2	2.41	0.85
		1989	573	67	261	56	1.47	17.8	16/12	0.44	05/08	3.0	0.91	0.50
		1990	715	84	324	70	1.82	14.6	25/02	0.48	24/09	4.1	1.13	0.51
015010	**Isla at Wester Cardean** C.A: 366.5 km²	**72-85**	*1109*		**668**		**7.77**	**150.9**	**24/08 1985**	**1.10**	**27/08 1984**	**16.5**	**4.85**	**1.50**
M.A: TRPB	Level: 36m Local Number:													
F.A.R: PI	B.F.I: .54 Sensitivity: 8.2	1986	1123	101	657	98	7.63	89.1	07/12	1.38	16/10	15.8	5.71	1.53
Comment: Velocity-area station with cableway. 25m wide. Upgraded to full network status in 1984. Significantly influenced by impounding reservoir system of the Loch of Lintrathen and Blackwater Res. Naturalised monthly flows available from 1973 to 87. # Catchment lies on S edge of Grampians (> 1000m) and is mainly steeply sloping. Land use is rough grazing and forestry in uplands, cattle and arable in lowlands. Southern 35% is sandstone, rest is metamorphic and igneous.		1987	1035	93	537	80	6.24	82.6	21/10	1.96	11/08	10.5	4.90	2.32
		1988	1307	118	809	121	9.38	115.3	26/10	1.54	24/06	16.3	7.20	1.99
		1989	940	85	461	69	5.36	48.8	09/03	**0.98**	**04/08**	11.1	3.93	1.19
		1990	1109	100	560	84	6.51	83.9	04/02	1.33	15/09	14.0	3.73	1.52
015011	**Lyon at Comrie Bridge** C.A: 391.1 km²	**58-85**	*1939*		**937**		**11.62**	**271.3**	**15/11 1978**	**1.70**	**06/09 1976**	**26.1**	**6.97**	**3.00**
M.A: TRPB	Level: 92m Local Number:													
F.A.R: H	B.F.I: .46 Sensitivity: 5.4	1986	2463	127	1100	117	13.64	189.6	04/12	2.22	24/07	34.8	6.84	2.42
Comment: Velocity-area station with cableway. Originally hydro-board station, upgraded from pressure recorder to full network status in 1983. 40m wide. Banks 3.2m high contain all flows. Trees on banks hinder flood gauging. 170 sq. km controlled for HEP with storage in Lochs Lyon, An Daimh and Stronuich. Daily read ramp 6/37 to 9/72. Naturalised monthly flows available from 1973 to 87. # Steeply sloping catchment (Grampian mountains). Land use - rough grazing and forestry. Geology is metamorphic (schist, quartzite and marble).		1987	1591	82	765	82	9.49	107.8	31/12	2.94	08/08	21.2	6.29	3.53
		1988	2155	111	1070	114	13.23	191.9	25/10	2.99	23/06	25.1	8.80	3.68
		1989	2296	118	1130	121	14.01	**315.4**	**06/02**	2.69	24/07	29.9	7.33	2.85
		1990	2737	141	1513	161	18.76	**377.9**	**04/02**	2.82	16/09	47.5	8.10	3.19
015012	**Tummel at Port-na-craig** C.A: 1649.0 km²	**73-85**	*1513*		**1349**		**70.54**	**648.7**	**15/11 1978**	**12.68**	**02/09 1976**	**142.6**	**54.02**	**18.81**
M.A: TRPB	Level: 75m Local Number:													
F.A.R: H	B.F.I: .63 Sensitivity: 2.9	1986	1798	119	1541	114	80.56	338.6d	05/12	18.78	06/07	161.7	55.95	19.59
Comment: Velocity-area station below Faskally Dam. 65m wide. Cableway removed 1983; can use bridge but piers cause problems. Moved in 1978 from 15804 Ballinluig (1720 km²) 8km d/s; old site unstable. Entire catchment controlled for HEP; major storage in Lochs Erichl, Rannoch and Tummel, plus Loch Faskally behind the dam. Naturalised monthly flows from 1973 to 87. To be moved 700m d/s in 1993. # Most of catchment is steeply sloping (Grampians, >1000m). Land use: mainly rough grazing and forestry. Geology is metamorphic.		1987	1259	83	1098	81	57.39	260.9d	31/12	18.03	25/07	95.5	54.49	20.05
		1988	1678	111	1506	112	78.54	467.8	19/10	16.84	03/07	143.5	69.60	19.44
		1989	1674	111	1474	109	77.10	**676.3**	**07/02**	17.63	30/07	157.8	46.78	19.00
		1990	1948	129	1713	127	89.58	**970.6**	**04/02**	15.18	13/08	240.2	47.69	16.50
015013	**Almond at Almondbank** C.A: 174.8 km²	**55-85**	*1425*		**939**		**5.20**	**139.7**	**22/11 1974**	**0.14**	**02/08 1955**	**11.5**	**3.22**	**0.69**
M.A: TRPB	Level: 20m Local Number:													
F.A.R: PH	B.F.I: .45 Sensitivity: 10.9	1986	1677	118	1010	108	5.60	80.7	10/12	0.70	26/07	13.0	3.24	0.77
Comment: Velocity-area station with cableway. 15m wide. Daily read gaugeboard from 1/55 to 1/73. Very flashy. Lowest Tay tributary above tidal limit. 30 sq. km controlled for HEP. Minor abstraction from Fendoch Burn for water supply. Naturalised monthly flows available from 1973. # Long narrow catchment draining Glen Almond in SE of Grampians (>900m). Upper 2/3 is steeply sloping. Rough grazing in upper parts, some cattle in the lower. 2/3 is metamorphic; rest is sandstone.		1987	1264	89	775	83	4.29	66.2	20/08	0.91	09/08	8.4	3.12	1.10
		1988	1679	118	1093	116	6.04	**166.0**	**19/10**	0.66	29/06	12.7	4.22	0.90
		1989	1421	100	889	95	4.93	113.1	24/12	0.42	04/08	11.1	2.34	0.51
		1990	1649	116	1053	112	5.84	136.9	04/02	0.75	08/08	15.2	2.54	0.84
015014	**Ardle at Kindrogan** C.A: 103.0 km²	85-85			1036		3.38	41.9	24/08 1985	0.53	16/06 1985	8.0	2.06	0.74
M.A: TRPB	Level: m Local Number: 29													
F.A.R: N	B.F.I: .43 Sensitivity:	1986	1381		1032	100	3.37	18.7d	14/01	0.36	25/08	8.4	1.92	0.42
Comment: Velocity-area station. 14m wide. Gauged from bridge; cableway planned. Boulder and gravel control. Natural flows. # Mountainous catchment on metamorphic rock with some limestone outcrops. Steep slopes. Mainly rough grazing. Increasing forestry (10% of catchment in 1992).		1987	1082		792	76	2.59	36.9	30/12	0.41	08/08	5.3	1.71	0.68
		1988	1443		1060	102	3.45	87.5	19/10	0.31	29/06	7.2	2.32	0.45
		1989	1155		805	78	2.63	39.1	05/03	0.19	04/08	6.4	1.52	0.26
		1990	1436		1060	102	3.46	45.9	04/02	0.40	15/09	8.1	1.84	0.56
015015	**Almond at Newton Bridge** C.A: 84.0 km²													
M.A: TRPB	Level: m Local Number: 22													
F.A.R: I	B.F.I: .43 Sensitivity: 12.3	1986	1973		1345		3.58	28.4d	07/12	0.44	25/09	9.2	1.79	0.48
Comment: Velocity-area station with cableway. 15m wide. Stable control of gravel and small stones. 30 sq. km controlled for HEP otherwise natural regime - very flashy. # Steep mountainous catchment on metamorphic rock. Rough grazing with hardly any forestry.		1987	1399		892		2.37	14.8d	20/08	0.54	24/05	4.7	1.76	0.64
		1988	1875		1248		3.31	134.5	18/10	0.41	29/06	6.2	2.18	0.57
		1989	1660		1098		2.93	82.7	13/01	0.26	04/08	6.4	1.62	0.32
		1990	1958		1479		3.94	108.4	04/02	0.44	05/08	10.7	1.66	0.54
015016	**Tay at Kenmore** C.A: 600.9 km²	**74-85**	*2104*		**2374**		**45.23**	**288.3**	**03/03 1979**	**1.75**	**20/08 1984**	**96.0**	**35.67**	**5.39**
M.A: TRPB	Level: 100m Local Number:													
F.A.R: H	B.F.I: .65 Sensitivity: 6.4	1986	2681	127	2810	118	53.54	180.2	05/12	7.31	21/09	120.3	36.61	9.77
Comment: Velocity-area station with cableway. 60m wide; no control on main channel. 120 sq. km controlled for HEP. Water imported from Lyon catchment - evident in water balance. Strong winds over Loch Tay (2km u/s) can affect flows. Daily gaugeboard readings 1959-74. Naturalised monthly flows available 1974-87. # The catchment is in the Grampians and is steeply sloping except for the valley bottom. Almost all metamorphic. Land use is rough grazing.		1987	1718	82	1904	80	36.29	176.8	31/12	4.85	11/08	71.2	32.62	8.36
		1988	2354	112	2780	117	52.83	188.7	13/01	4.18	30/06	95.8	46.41	9.76
		1989	2398	114	2704	114	51.53	252.3	07/02	2.81	24/07	113.1	35.45	6.23
		1990	2930	139	3025	127	57.64	**357.2**	**05/02**	6.78	31/05	146.0	30.70	9.19
015021	**Lunan Burn at Mill Bank** C.A: 94.0 km²													
M.A: TRPB	Level: m Local Number: 19													
F.A.R: IN	B.F.I: .68 Sensitivity: 14.0	1986	910		481		1.43	9.2d	12/12	0.12	11/10	2.8	1.08	0.16
Comment: Velocity-area station. 7.5m wide. No cableway. Stable cobbled bed control (old ford) under a bridge; bridge is high flow control. Not gauged at very high flows. Minor abstractions for irrigation. # Undulating hilly catchment to about 400m. Mixed arable farming and rough grazing with some natural woodlands. Five small natural lochs in the catchment.		1987	859												
		1988	1121		662		1.97	15.7d	19/10	0.23	27/06	4.2	1.48	0.33
		1989	741		327		0.98	4.7d	11/03	0.05	03/08	2.4	0.62	0.10
		1990	952		469		1.40	12.3d	05/02	0.09	26/09	3.6	0.71	0.16
015023	**Braan at Hermitage** C.A: 210.0 km²	83-85	*1667*		1112		7.40	90.8d	27/11 1984	0.18	28/08 1984	17.9	4.45	0.34
M.A: TRPB	Level: m Local Number: 46													
F.A.R: N	B.F.I: .46 Sensitivity:	1986	1750	105	1109	100	7.38	122.1	10/12	0.49	26/07	18.9	3.77	0.62
Comment: Velocity-area station with cableway. 30m wide. The low flow control, a derelict stone weir, is sometimes altered by children. Supersedes 15017, Ballinloan 5km u/s (197 sq. km). Flows are natural. # Catchment is in the Grampians (> 800m), and has steep or moderate slopes. Mainly open moorland with rough grazing; forestry is being developed (25% in 1992). Geology is metamorphic with glacial Drift in lower catchment.		1987	1235	74	820	74	5.46	85.3	21/10	0.87	11/08	10.5	4.00	1.09
		1988	1652	99	1249	112	8.29	190.3	25/10	0.45	30/06	17.0	5.74	0.94
		1989	1408	84	941	85	6.27	111.9	13/01	0.24	04/08	15.1	2.83	0.32
		1990	1631	98	1106	99	7.37	149.8	04/02	0.56	27/09	17.7	3.17	0.61

	Period	Rainfall (mm)	% of pre-1986	Runoff (mm)	% of pre-1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
015024 **Dochart at Killin** C.A: 239.0 km²	82..85	*2445*		2039		15.45	175.3	21/12 1985	0.28	15/08 1983	42.8	8.94	0.70
M.A: TRPB Level: m Local Number: 40													
F.A.R: I B.F.I: .26 Sensitivity:	1986	3299	135	2460	121	18.64	212.6	28/12	1.06	03/07	53.1	8.62	1.49
Comment: Velocity-area station with cableway. 35m wide. Stable bedrock control; sharp fall in bed level d/s of station, culminating in the Dochart Falls. Some exports to the Loch Lyon system for HEP. * A mountainous, mainly steeply sloping catchment. Land use is mainly rough grazing on open moorland with some forestry at the head of the catchment and along the valley bottom. Geology is predominantly metamorphic. Adjacent to the IH experimental Balquhidder catchments.	1987	2057	84	1552	76	11.76	115.1	31/12	0.97	11/08	36.8	5.28	1.65
	1988	2786	114	2193	108	16.58	190.7	12/01	0.53	30/06	37.3	9.54	1.45
	1989	2880	118	2237	110	16.96	236.7	06/02	0.46	24/07	40.2	8.02	0.90
	1990	3510	144	2681	131	20.32	328.7	04/02	0.79	27/07	53.8	9.78	1.38
015025 **Ericht at Craighall** C.A: 432.0 km²	85-85	1314		1038		14.22	181.5	24/08 1985	2.19	22/05 1985	32.6	9.29	3.23
M.A: TRPB Level: m Local Number: 49													
F.A.R: N B.F.I: .51 Sensitivity: 9.1	1986	1300	99	978	94	13.40	141.5	11/12	1.65	25/09	30.3	8.59	1.82
Comment: Velocity-area station with cableway. 46m wide. Stable bedrock control. Flows are natural. * Mountainous steeply sloping catchment on metamorphic rock. Used mainly for rough grazing with a small amount of forestry.	1987	1065	81	746	72	10.22	149.1	30/12	2.32	11/08	18.7	7.76	2.92
	1988	1411	107	1084	104	14.80	329.6	19/10	1.57	29/06	28.0	10.90	2.31
	1989	1066	81	753	73	10.31	123.6	05/03	1.02	25/07	25.4	6.38	1.22
	1990	1340	102	953	92	13.05	184.2	04/02	1.78	15/09	32.5	7.03	2.00
015027 **Garry Burn at Loakmill** C.A: 20.0 km²													
M.A: TRPB Level: m Local Number:													
F.A.R: I B.F.I: .49 Sensitivity:	1986												
Comment: Velocity-area station. 4m wide. No cableway; high flows gauged from bridge. Low flow control formed from sleepers in a flat vee configuration; bridge is high flow control. Fully gauged. Significant abstractions for irrigation. * Moderately sloping catchment rising to 400m. Geology is metamorphic and Old Red Sandstone. Land is used for mixed farming.	1987			524		0.33	2.7d	21/10	0.05	11/08	0.7	0.25	0.08
	1988			801		0.51	6.9	19/10	0.04	24/06	1.1	0.36	0.07
	1989			521		0.33	6.3	13/01	0.01	04/08	1.0	0.13	0.02
	1990	1076		661		0.42	7.7	04/02	0.03	10/08	1.1	0.18	0.03
015028 **Ordie Burn at Luncarty** C.A: 54.0 km²													
M.A: TRPB Level: m Local Number:													
F.A.R: I B.F.I: .48 Sensitivity:	1986	1068		576		0.99	10.9d	11/12	0.07	30/08	2.3	0.52	
Comment: Velocity-area station with cableway. 7m wide. Fully rated. Old mill weir 1.5m high provides a stable control at all flows; the weir offtake has been closed off. * Moderately sloping catchment rising to 400m. Geology is metamorphic and Old Red Sandstone. Land is used for mixed farming.	1987	957		532		0.91	6.6d	27/03	0.09	01/08	2.0	0.64	0.16
	1988	1219		756		1.29	23.8	19/10	0.10	22/06	2.6	0.90	0.13
	1989	876											
	1990	1068		676		1.16	25.1	04/02	0.09	02/08	2.9	0.52	0.11
016001 **Earn at Kinkell Bridge** C.A: 590.5 km²	**48..85**	*1472*		**1126**		**21.09**	**305.3d**	**02/02 1948**	**0.72**	**06/08 1955**	**46.2**	**14.45**	**2.93**
M.A: TRPB Level: 15m Local Number:													
F.A.R: PH B.F.I: .50 Sensitivity: 7.6	1986	1809	123	1416	126	26.51	201.6	16/11	2.60	26/09	58.5	18.86	3.28
Comment: Velocity-area station with cableway. 35m wide. An allowance is made for any high flow which bypass gauged section. Weed growth can be a problem. 189 sq. km controlled for HEP. Loch Turret used for public water supply. Monthly naturalised flows available from 1963 to 87. # Drains the southern Grampians. Steep slopes plus extensive flatter areas in the lower parts. Mixed agricultural use in the east; forestry and rough grazing in the west. Metamorphic in the west; sandstone elsewhere with Drift in the valley. Roughly 50% pervious.	1987	1323	90	996	88	18.65	153.1	27/03	2.64	11/08	37.8	14.42	3.30
	1988	1754	119	1475	131	27.55	181.3	12/01	2.47	25/06	53.6	21.17	3.73
	1989	1569	107	1248	111	23.37	202.5	09/03	2.34	24/07	55.0	12.59	2.67
	1990	1920	130	1442	128	27.00	279.7	04/02	2.74	08/08	73.5	14.27	3.08
016003 **Ruchill Water at Cultybraggan** C.A: 99.5 km²	**70-85**	**1970**		**1517**		**4.79**	**250.4**	**13/01 1975**	**0.09**	**28/08 1984**	**12.1**	**2.27**	**0.31**
M.A: TRPB Level: 62m Local Number:													
F.A.R: N B.F.I: .30 Sensitivity: 15.2	1986	2481	126	1899	125	5.99	213.5	09/01	0.33	24/07	14.8	2.54	0.40
Comment: Velocity-area station with cableway. 20m wide. Flashiness and remoteness hinder flood gauging. Flows are natural. # A mountainous catchment with steep slopes. Land is used mainly for rough grazing and army ranges. Thick peat on the flatter hill tops. Main channel follows a major geological fault: sandstone to its south, metamorphic to its north (40/60 split).	1987	1678	85	1255	83	3.96	111.1	20/08	0.31	10/08	10.5	2.00	0.49
	1988	2228	113	1789	118	5.63	133.3	25/10	0.32	29/06	13.9	3.35	0.52
	1989	2050	104	1691	111	5.34	133.9	09/03	0.17	24/07	13.2	2.30	0.26
	1990	2468	125	1894	125	5.98	189.2	04/02	0.32	08/08	16.3	2.53	0.43
016004 **Earn at Forteviot Bridge** C.A: 782.2 km²	**72..85**	**1428**		**1060**		**26.28**	**328.6**	**15/11 1978**	**2.12**	**26/07 1984**	**59.8**	**16.89**	**3.36**
M.A: TRPB Level: 8m Local Number:													
F.A.R: PH B.F.I: .53 Sensitivity: 6.1	1986	1664	117	1354	128	33.59	249.2	16/11	3.69	25/07	76.1	21.81	4.25
Comment: Velocity-area station. 50m wide. Rebuilt with cableway in 1991. Bridge forms control. Cableway too close to bridge. Big floods bypass station. 189 sq. km controlled for HEP. Loch Turret used for PWS. Station used to regulate d/s abstractions. Naturalised monthly flows available from 1975 to 1987. # Drains southern Grampians. Steep slopes plus extensive flatter areas in lower catchment. Mixed agricultural use in lowland east; forestry and rough grazing in west. Metamorphic in western 45%; sandstone in east; much Drift in the valley.	1987	1243	87	920	87	22.83	176.1	27/03	3.25	11/08	47.1	17.39	4.36
	1988	1624	114	1371	129	33.91	238.3	26/10	3.26	28/06	71.1	25.72	4.92
	1989	1444	101	1140	108	28.27	264.6	09/03	2.56	24/07	68.6	13.28	3.08
	1990	1766	124	1344	127	33.34	**337.0**	**05/02**	2.80	10/08	90.8	15.63	3.66

Summary of Archived Data - 1

Gauged daily flows, monthly peaks and monthly rainfall

Stn. number	Gauged daily flows, monthly peaks and rainfall			
007003	60s	---eAAAAAA	70s	AAABAAAAAA
	80s	AAAAAADDAA	90s	AAc
008001	30s	--------fc	40s	!fcccccccc
	50s	bBBAAAAAAA	60s	AAAAAAAAAA
	70s	AAAAA††††††	80s	------††††
	90s	††		
008002	50s	-eAAABAAAA	60s	AAAAAAAAAA
	70s	AAABAAAAAA	80s	AAAAAAAAAA
	90s	AAc		
008003	50s	-eAAAAAAAA	60s	AAAAAAAAAA
	70s	AAAA††††††		
008004	50s	--EAAAAAAA	60s	AAAAAAAAAA
	70s	AAAAAAAAAA	80s	AAAAEAAAAA
	90s	AAb		
008005	50s	-eBAAAAAAA	60s	AAAAAAAAAA
	70s	AAAAAAAAAA	80s	AAAAAAAACA
	90s	AAb		
008006	50s	--eAAAAAAA	60s	AAAAAAAAAA
	70s	AAAAAAAAAA	80s	AAAAAAAAAA
	90s	AAe		
008007	50s	--eAAAAAAA	60s	AAAAAAAAAA
	70s	AAAAAAAAAA	80s	AAAAAAAAAA
	90s	AAc		
008008	50s	--eAAAAAAA	60s	AAAAAAAAAA
	70s	AAAAAAAAAA	80s	AAAAAAaaaa
	90s	aAc		
008009	50s	--EABBABBA	60s	AAAAAAAAAA
	70s	AAAAAAAAAA	80s	AAAACAAAAA
	90s	AAc		
008010	50s	---eAAAAAA	60s	AAAAAAAAAA
	70s	AAAAAAAAAA	80s	AAAACAAAAA
	90s	AAb		
008011	70s	--------ff	80s	feaaaaAAAA
	90s	AAb		
009001	50s	--------e	60s	AAAAAAAAAA
	70s	AAAAAAAAAA	80s	AAAAAAAAAA
	90s	AAb		
009002	60s	eAAAAAAAAA	70s	AAAABAAAAA
	80s	AAAAAAA†AA	90s	AAb
009003	60s	-†††††††E	70s	AAAAAAAAAA
	80s	AAAA†AAAAA	90s	AAc
009004	80s	eaaacaAAAA	90s	AAb
009005	40s	--------fc	50s	ffffc!fffcc
	60s	ccccccccfc	70s	cccccccccc
	80s	ccccccAAAA	90s	AAc
010001	60s	-††††EAAAA	70s	ABAAAAAAAA
	80s	ACCc--††††	90s	††
010002	60s	-††††††††	70s	†EAAAAAAAA
	80s	AAAAAAAAAA	90s	AAb
010003	80s	---eaAAAAA	90s	AAb
011001	60s	-†††††††E	70s	AAAAAAAAAA
	80s	AAAAAAAAA	90s	AAc
011002	60s	-†††††††F	70s	CBAAAAAAAA
	80s	AAAACAAAAA	90s	AAb
011003	60s	-††††††††	70s	†††EAAAAAA
	80s	AAAACAAAAA	90s	AAb
011004	80s	--------A	90s	AAb
012001	20s	--------e	30s	BBBBBBAAAA
	40s	BABBAABCCC	50s	CCCCCCCCCC
	60s	CCCCCBAAAA	70s	BCBAAAAAAA
	80s	AAAAAAAAAA	90s	AAb
012002	70s	--eAAAAAAA	80s	AAAAAAAAAA
	90s	AAb		
012003	70s	-----eaaaa	80s	aAAAAAAAAA
	90s	AAb		
012004	60s	--------f	70s	aaaaaabaaa
	80s	bCFFCAAAA†	90s	††
012005	70s	------eaaa	80s	aAAAAAAAAA
	90s	ACc		
012006	70s	--------ea	80s	aAAAAAAAAA
	90s	AAc		
012007	80s	--eaaAAAAC	90s	AAc
012008	80s	-----dACAA	90s	AAb
013001	70s	--------e	80s	aAAAAAAAAA
	90s	AAc		
013002	80s	--cccAAAAA	90s	AAe
013003	70s	--------c	80s	ccc---††††
	90s	††		
013004	80s	-----ACCAA	90s	AAe
013005	80s	-ecccAAAAA	90s	AAe
013007	70s	------CCCC	80s	CCCDAAAAAA
	90s	AAe		
013008	80s	---AAAAAAA	90s	AAe
013009	80s	-----†AAAA	90s	AAe
013010	80s	--------a	90s	aae
014001	60s	-††††††EAA	70s	AAAAAAAAAA
	80s	AAAAAAAAAA	90s	AAe
014002	60s	-†††††††E	70s	AAAAAAAAAA
	80s	ACCFCAAAAA	90s	AAe
014005	80s	----caAAAA	90s	AAe
014006	80s	------†CAA	90s	AA
014007	80s	-------aaa	90s	aa
015001	50s	---ee-----	60s	eAAAAAAAE†
	70s	††††††††††	80s	††††††††††
	90s	††		
015002	50s	--------e	60s	AAAAAAAEE†
	70s	††††††††††	80s	††††††††††
	90s	††		
015003	40s	-------fcC	50s	CBAAAAAAAA
	60s	AAAAAAAAAA	70s	AAAAAAAAAA
	80s	ABCFCAAAAA	90s	AAe
015004	20s	--------CCC	30s	CCCCCCBAe-
	40s	------††††	50s	EE†††††††E
	60s	AAAAAAAEE†	70s	††††††††††
	80s	††††††††††	90s	††
015005	20s	--------CCC	30s	CCCCCCBAe-
	40s	--------†††	50s	EE†EEE†††E
	60s	AEAAAAAAE†	70s	††††††††††
	80s	††††††††††	90s	††
015006	50s	--eAAAAAAA	60s	AAAAAAAAAA
	70s	AAAAAAAAAA	80s	AAAAAAAAAA
	90s	AAe		
015007	50s	-------eAA	60s	AAAAAAAAAA
	70s	AAAAAAAAAA	80s	AACCCAAAAA
	90s	AAe		
015008	50s	--------EA	60s	AAAAAAAAAA
	70s	AAAAAAAAAA	80s	BAFCCAAAAA
	90s	AAe		
015010	70s	--cAAAAAAA	80s	AFCFCAAAAA
	90s	AAe		
015011	50s	--------cc	60s	cccccccccc
	70s	cCBAAAAAAA	80s	ACCCCAAAAA
	90s	AAe		
015012	70s	---BAAAaaa	80s	AACCCACCAA
	90s	AAe		
015013	50s	-----ccccc	60s	cCCCCCCCCC
	70s	CCCBAAAAAA	80s	AABCCAAAAA
	90s	AAe		
015014	80s	-----aCAAA	90s	AAe
015015	80s	-----CCAA	90s	AAe
015016	70s	----bAAAAA	80s	AACCCAAAAA
	90s	AAe		
015017	70s	-----eAAAA	80s	A††---††††
	90s	††		
015018	50s	---eaaaae		
015021	80s	-----†C†CC	90s	CAe
015023	80s	---ccAAAAA	90s	AAe
015024	80s	--cccDAAAA	90s	AAe
015025	80s	----†AAAAA	90s	AAe
015027	80s	--------caa	90s	AAe
015028	80s	------CCA†	90s	AAe
016001	40s	--------Cc	50s	cBAAbbAAAA
	60s	AAAAAAAAAA	70s	AAAAAAAAAA
	80s	BDFCCAAAAA	90s	AAe
016002	50s	-----eAAAA	60s	AAAAAAAAAA
	70s	AAAAAAAA††		
016003	60s	-††††††††	70s	EDAABAAAAA
	80s	AAAAAAAAAA	90s	AAe
016004	70s	--eAAAAAAA	80s	ADDAAAAAAA
	90s	AAe		
016006	80s	--------cc	90s	c

Summary of Archived Data - 2

Naturalised daily and monthly flows

Stn. number	Naturalised daily, and monthly flows			
007003	60s	-----FEEEE	70s	EEEEEEEEEE
	80s	F		
008001	30s	--------FE	40s	FFEEEEEEEE
	50s	EEEEEEEEEE	60s	FEEEEF
008005	70s	-F-E		
012002	70s	--FF------	80s	F
012004	70s	-------EEE	80s	E
013007	70s	------EEEE	80s	EEEEEE
014001	70s	-----F--E		
014002	70s	-----E--E		
015003	70s	---EEEEEEE	80s	EEEEEE
015006	60s	-------FEE	70s	F--EEEEEEE
	80s	EEEEEE		
015007	70s	---EEEEEEE	80s	EEEEEE
015008	70s	---EEEEEEE	80s	EEEEEE
015010	70s	---EEEEEEE	80s	EEEEEE
015011	70s	---EEEEEEE	80s	EEEEEE
015012	70s	---EEEEEEE	80s	EEEEEE
015013	70s	---EEEEEEE	80s	EEEEEE
015016	70s	----EEEEEE	80s	EEEEEE
015017	70s	--------F		
015024	80s	--EEEE		
016001	60s	---FEEEEEE	70s	EEEEEEEEEE
	80s	EEEEEE		
016004	70s	-----EEEEE	80s	E

Gauged daily flows, monthly peaks and monthly rainfall

KEY:

	Complete rainfall	Incomplete or missing rainfall
Complete daily and complete peaks	A	a
Complete daily and partial peaks	B	b
Complete daily and no peaks	C	c
Partial daily and complete peaks	D	d
Partial daily and partial peaks	E	e
Partial daily and no peaks	F	f
No flow data	†	-

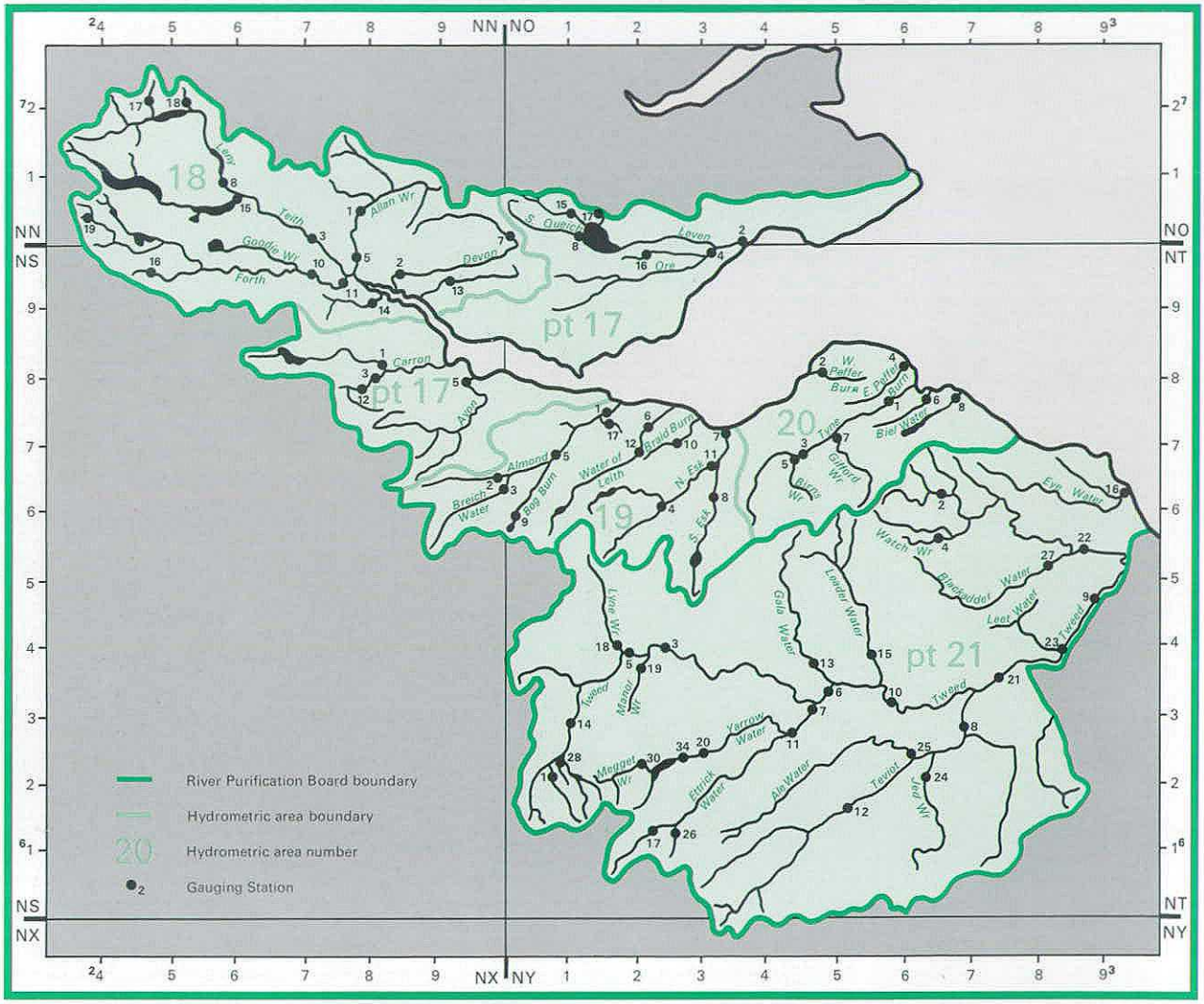
Up-to-date Summaries of Archived Data are available on request from the National Water Archive Office.

Naturalised daily and monthly flows

KEY:

Complete daily and complete monthly	A
Partial daily and complete monthly	B
Partial daily and partial monthly	C
Partial daily and no monthly	D
No daily and complete monthly	E
No daily and partial monthly	F
No naturalised flow data	-

FORTH RIVER PURIFICATION BOARD
and the
TWEED RIVER PURIFICATION BOARD



FRPB
Area: 4,520 km²
Average Rainfall (1961–90): 1111mm

TWRPB
Area: 4,580 km²
Average Rainfall (1961–90): 969mm

Gauging Station Register

Station number	River name	Station name	Grid reference	Catchment area (sq km)	Station type	Period of record	Mean ann. rainfall (mm)	Mean ann. runoff (mm)	Mean ann. loss (mm)	Max. ann. runoff (mm)	Year of max.	Min. ann. runoff (mm)	Year of min.	Mean flow (m^3s^{-1})	Min. mon. flow (m^3s^{-1})	Month/Year of min.	Mean ann. flood (m^3s^{-1})	10 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
017001	Carron	Headswood	NS 832820	122.3	VA	1969-90	1556	844	712	**1188**	90	544	72	3.27	0.42	10/72	69.6	8.3	0.55
017002	Leven	Leven	NO 369006	424.0	VA	1969-90	923	463	460	691	85	169	73	6.23	0.79	10/72	45.0	13.6	1.06
017003	Bonny Water	Bonnybridge	NS 824804	50.5	VA	1971-90	1204	807	397	**1135**	90	550	75	1.29	0.21	08/83		2.8	0.26
017004	Ore	Balfour Mains	NT 330997	162.0	VA	1972-90	877	395	482	565	85	110	73	2.03	0.16	08/75		4.5	0.23
017005	Avon	Polmonthill	NS 952797	195.3	VA	1971..90	1007	616	391	813	85	333	73	3.82	0.54	08/75	57.5	9.1	0.60
017008	South Queich	Kinross	NO 122015	33.7	VA	1988-90	*1426*	864	562	1019	90	711	89	0.92	0.11	07/89		2.1	0.12
017012	Red Burn	Castlecary	NS 788780	22.0	VA	1986-90	1247	986	261	1257	90	777	89	0.69	0.13	07/89		1.5	0.13
017015	North Queich	Lathro	NO 114042	23.1	VA	1987-90	1254	1024	230	1170	90	803	89	0.75	0.04	07/89		1.8	0.07
017016	Lochty Burn	Whinnyhall	NT 220985	14.0	FV	1986-90		536		642	87	426	89	0.24	0.10	09/90		0.4	0.08
017017 *	Greens Burn	Killyford Bridge	NO 150053	7.9	VA	1986-87		591		679	87	503	86	0.15	0.02	09/86		0.4	>0.00
018001	Allan Water	Kinbuck	NN 792053	161.0	VA	1957-90	1336	973	363	**1247**	90	674	75	4.97	0.53	07/84	70.9	11.2	0.81
018002	Devon	Glenochil	NS 858960	181.0	VA	1959-90	1301	762	539	**943**	90	425	73	4.37	0.75	10/72	46.9	9.2	1.00
018003	Teith	Bridge of Teith	NN 725011	518.0	VA	1957..90	1996	1375	621	**1992**	90	919	69	22.59	3.14	08/84	190.8	53.3	4.16
018005	Allan Water	Bridge of Allan	NS 786980	210.0	VA	1971-90	1307	960	347	**1365**	86	641	75	6.40	0.65	08/84	88.6	15.0	0.86
018007	Devon	Fossoway Bridge	NO 011018	69.5	VA	1986-90	*1961*	940	1021	1117	90	738	87	2.07	0.41	07/89		4.9	0.43
018008	Leny	Anie	NN 585096	190.0	VA	1973-90	2358	2080	278	**2669**	86	1551	75	12.53	0.34	08/84	82.0	32.1	0.77
018010	Forth	Gargunnock	NS 714953	397.0	VA	1986-90	1836	1253	583	1413	90	985	87	15.78	1.52	07/89		43.6	1.27
018011	Forth	Craigforth	NS 775955	1036.0	VA	1981-90	1891	1529	362	1803	90	1188	87	50.23	3.57	08/84		125.3	5.30
018013	Black Devon	Fauld Mill	NS 914924	67.0	CB	1986-90		438		496	86	333	89	0.93	0.13	07/87		2.2	0.13
018014	Bannockburn	Bannock Burn	NS 812908	23.7	VA	1986-90	1498	1267	231	1473	90	955	87	0.95	0.22	07/89		2.1	0.24
018015	Eas Gobhain	Loch Venachar	NN 602070	202.0	TP	1986-90		1020		1119	90	742	87	6.53	2.81	07/87		17.0	2.77
018016	Kelty Water	Clashmore	NS 468968	2.8	FL	1986-90	2249	1376	873	1709	86	1044	87	0.12	0.01	06/88		0.4	>0.00
018017	Monachyle	Balquhidder	NN 475230	7.7	C	1982-90	*2734*	2023	711	2523	86	1737	87	0.49	0.01	06/82		1.4	0.02
018018	Kirkton Burn	Balquhidder	NN 532219	6.9	C	1983..90	*2530*	1943	587	2242	86	1598	87	0.42	0.03	08/83		1.0	0.04
018019 *	Comer Burn	Comer	NN 387042	0.9	CB	1987-88	2746	2908		3399	88	2453	87	0.08	0.01	06/88		0.2	>0.00
019001	Almond	Craigiehall	NT 165752	369.0	VA	1957-90	893	488	405	**701**	86	247	73	5.72	0.67	10/72	118.4	13.1	0.89
019002	Almond	Almond Weir	NT 004652	43.8	CB	1962-90	1066	682	384	**902**	86	412	73	0.95	0.13	08/83	17.1	2.3	0.16
019003 *	Breich Water	Breich Weir	NT 014639	51.8	B	1961-80	949	538	411	751	62	328	75	0.88	0.05	08/76	20.3	2.1	0.10
019004	North Esk	Dalmore Weir	NT 252616	81.6	MIS	1960-90	948	580	368	**760**	90	303	73	1.50	0.25	08/75	21.1	3.1	0.35
019005	Almond	Almondell	NT 086686	229.0	FV	1962-90	957	528	429	**738**	86	267	73	3.84	0.39	10/72	92.1	9.0	0.53
019006	Wtr of Leith	Murrayfield	NT 228732	107.0	VA	1963-90	879	416	463	602	85	155	73	1.41	0.26	10/73	34.0	2.8	0.35
019007	Esk	Musselburgh	NT 339723	330.0	VA	1962-90	844	383	461	599	82	156	73	4.01	0.86	09/73	71.7	8.1	0.95
019008 *	South Esk	Prestonholm	NT 325623	112.0	C	1964-89	861	377	484	576	85	114	73	1.34	0.28	09/73	22.6	2.7	0.33
019009	Bog Burn	Cobbinshaw	NT 026591	8.5	FL	1963..90	924	542	382	790	85	301	73	0.15	>0.00	03/73		0.3	0.02
019010	Braid Burn	Liberton	NT 273707	16.2	C C	1969..90	769	286	483	341	84	113	73	0.15	0.02	08/84	3.8	0.3	0.03
019011	North Esk	Dalkeith Palace	NT 333678	137.0	VA	1963-90	*947*	480	467	668	85	222	73	2.09	0.49	09/73	42.9	4.1	0.56
019012	Wtr of Leith	Colinton	NT 212688	72.0	FV	1986-90		535		691	90	413	89	1.22	0.35	05/90		2.4	0.35
019017	Gogar Burn	Turnhouse	NT 161733	38.8	MIS	1986-90	823	393	430	487	86	271	89	0.48	**0.04**	09/90		1.1	0.04
020001	Tyne	East Linton	NT 591768	307.0	VA	1961-90	728	284	444	426	63	73	73	2.76	0.45	10/72	55.6	5.5	0.55
020002	W Peffer Brn	Luffness	NT 489811	26.2	MIS	1966-90	619	159	460	317	85	11	73	0.13	**>0.00**	**07/89**	3.0	0.3	0.01
020003	Tyne	Spilmersford	NT 456689	161.0	VA	1965..90	725	266	459	374	66	72	73	1.36	0.20	08/76	39.4	2.8	0.27
020004	E Peffer Brn	Lochhouses	NT 610824	31.1	MIS	1967..90	609	207	402	444	84	15	73	0.20	**0.01**	**07/90**	8.3	0.4	0.01
020005	Birns Water	Saltoun Hall	NT 457688	93.0	VA	1965..90	731	319	412	472	66	98	73	0.94	0.13	09/73	27.2	1.9	0.17
020006	Biel Water	Belton House	NT 645768	51.8	VA	1973-90	782	342	440	451	83	96	73	0.56	0.13	09/73	16.7	1.0	0.14
020007	Gifford Water	Lennoxlove	NT 511717	64.0	VA	1973-90	787	344	443	495	83	98	73	0.70	0.13	09/73	22.8	1.4	0.15
020008	Brox Burn	Broxmouth	NT 697776	19.7	TPVA	1986..90	777	215	562	235	86	194	87	0.13	0.03	01/87		0.2	0.02
021001 *	Fruid Water	Fruid	NT 088205	23.7	TP	1959..68	1744	893	851	1066	63	770	66	0.67	0.10	06/61	18.9	1.8	0.12
021002 *	Whiteadder	Hungry Snout	NT 663633	45.6	MIS	1959-68	969	694	275	1074	63	393	64	1.00	0.11	10/59	25.1	2.0	0.15
021003	Tweed	Peebles	NT 257400	694.0	VA	1959-90	1202	686	516	**954**	90	336	73	15.10	2.43	10/72	222.8	32.0	3.27
021004 *	Watch Water	Watch Wtr Res	NT 664566	10.7	TP	1965-68	1027	383	644	395	67	206	66	0.13	0.02	01/66		0.3	
021005	Tweed	Lyne Ford	NT 206397	373.0	VA	1961-90	1317	756	561	**1109**	90	395	73	8.94	1.44	10/72	123.4	18.8	2.02
021006	Tweed	Boleside	NT 498334	1500.0	VA	1961-90	1219	748	471	**986**	90	391	73	35.60	4.44	10/72	452.9	77.1	6.74
021007	Ettrick Water	Lindean	NT 486315	499.0	VA	1961-90	1384	936	448	1165	82	507	73	14.81	0.95	08/76	234.7	33.9	1.88
021008	Teviot	Ormiston Mill	NT 702280	1110.0	VA	1960-90	976	554	422	739	63	250	73	19.50	2.01	08/84	320.5	42.8	2.89
021009	Tweed	Norham	NT 898477	4390.0	VA	1962-90	990	555	435	735	63	244	73	77.30	9.88	08/76	789.4	165.5	14.36
021010 *	Tweed	Dryburgh	NT 588320	2080.0	VA	1960..80	1098	643	455	827	67	330	73	42.43	6.34	10/72	545.5	92.4	8.08
021011	Yarrow Wtr	Philiphaugh	NT 439277	231.0	VA	1963-90	1409	918	491	**1180**	86	507	73	6.73	0.60	08/76	88.9	15.2	1.02
021012	Teviot	Hawick	NT 522159	323.0	VA	1963-90	1190	821	369	1070	82	408	73	8.41	**0.68**	**07/89**	182.2	19.3	1.02
021013	Gala Water	Galashiels	NT 479374	207.0	VA	1964-90	947	546	401	721	85	238	73	3.58	0.40	08/76	41.9	7.8	0.53
021014	Tweed	Kingledores	NT 109285	139.0	VA	1961-90	1619	900	719	**1376**	90	415	73	3.97	0.60	10/72		8.8	0.89
021015	Leader Water	Earlston	NT 565388	239.0	VA	1966-90	835	450	385	605	79	155	73	3.41	0.35	08/76	58.8	7.4	0.46
021016	Eye Water	Eyemouth Mill	NT 942635	119.0	VA	1967-90	706	333	373	**491**	85	62	73	1.26	0.10	08/76	33.0	2.7	0.13
021017	Ettrick Water	Brockhoperig	NT 234132	37.5	VA	1965-90	1891	1537	354	2067	82	896	73	1.83	0.11	07/84	65.6	4.2	0.19
021018	Lyne Water	Lyne Station	NT 209401	175.0	VA	1968-90	941	525	416	**735**	90	257	73	2.91	0.59	09/73	34.9	6.1	0.69
021019	Manor Water	Cademuir	NT 217369	61.6	VA	1968-90	1423	803	620	**1072**	90	409	73	1.57	0.21	08/84	22.2	3.3	0.31
021020	Yarrow Wtr	Gordon Arms	NT 309247	155.0	VA	1967-90	1542	1046	496	**1401**	86	619	73	5.14	0.41	08/76	57.9	11.6	0.75
021021	Tweed	Sprouston	NT 752354	3330.0	VA	1969-90	1029	590	439	**772**	86	291	73	62.31	8.24	10/72	780.9	142.1	10.42
021022	Whiteadder	Hutton Castle	NT 881550	503.0	CC	1969-90	793	393	400	555	85	115	73	6.28	0.99	09/73	148.9	13.0	1.10
021023	Leet Water	Coldstream	NT 839396	113.0	FLVA	1970-90	652	236	416	367	79	32	73	0.85	0.01	08/76	49.0	2.0	0.02
021024	Jed Water	Jedburgh	NT 655214	139.0	VA	1971-90	918	517	401	**684**	86	242	73	2.28	0.31	08/76	57.5	5.2	0.39
021025	Ale Water	Ancrum	NT 634244	174.0	VA	1972-90	941	469	472	657	85	190	73	2.59	0.14	08/76	40.1	6.4	0.23
021026	Tima Water	Deephope	NT 278138	31.0	VA	1973-90	1747	1365	382	**1786**	90	1008	76	1.34	0.04	07/84	43.8	3.4	0.07
021027	Blackadder	Mouth Bridge	NT 826530	159.0	VA	1973-90	758	344	414	487	85	**134**	**89**	1.73	0.18	08/76	48.7	3.6	0.27
021028 *	Menzion Brn	Menzion Farm	NT 092234	5.7	TP	1948-52		1123		1278	50	874	52	0.20	0.02	07/49		0.4	0.03
021030	Megget Water	Henderland	NT 231232	56.2	VA	1968-90	1694	1110	584	1544	77	651	83	1.98	0.20	08/76	60.5	4.5	0.29
021034	Yarrow Wtr	Craig Douglas	NT 288244	116.0	FL	1968..90	1583	1039	544	1343	77	627	73	3.82	0.35	08/76	45.6	8.6	0.57

Hydrometric Statistics

	Period	Rainfall (mm)	% of pre-1986	Runoff (mm)	% of pre-1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
017001 Carron at Headswood C.A: 122.3 km²	**69-85**	**1496**		**808**		**3.13**	**147.9**	**07/12 1979**	**0.22**	**10/07 1985**	**7.9**	**1.40**	**0.54**
M.A: FRPB Level: 17m Local Number:													
F.A.R: SE B.F.I: .36 Sensitivity: 22.5	1986	1881	126	1079	134	4.18	92.8	22/03	**0.18**	**01/09**	11.3	1.92	0.35
Comment: Flat V weir installed in October 1988. Previously velocity-area station; instability in rating caused by d/s deposition. The reach is an artificial meander cutoff. Straight, uniform channel (concrete walls) lined with gabions; banks are steep to 2.5m.Catchment contains Carron Valley Res. - export of water. # The upper part of the catchment drains part of the Campsie Fells. Geology - composed of igneous rocks in headwaters and Carboniferous rocks in the valley.	1987	1426	95	646	80	2.51	53.7	26/03	0.50	28/04	6.3	1.37	0.63
	1988	1804	121	1036	128	4.01	84.5	13/08	0.64	18/06	9.3	2.47	0.81
	1989	1643	110	841	104	3.26	84.8	23/03	0.54	01/08	8.3	1.32	0.66
	1990	2075	139	1188	147	4.61	147.7	24/02	0.57	31/07	12.8	1.60	0.61
017002 Leven at Leven C.A: 424.0 km²	**69-85**	**899**		**441**		**5.92**	**128.0**	**10/02 1977**	**0.40**	**27/07 1974**	**13.2**	**3.85**	**1.00**
M.A: FRPB Level: 4m Local Number:													
F.A.R: SREI B.F.I: .67 Sensitivity: 8.3	1986	1050	117	613	139	8.24	44.7	30/12	1.35	26/07	17.8	6.95	1.78
Comment: River section in a straight reach with artifically heightened and steeped banks. The control was formerly a gravel bar but this has now been stabilised with gabions - to form an irregular broad-crested weir. Possible movement in control - evident at low flows. There are a number of small storage reservoirs in the catchment plus Loch Leven whose outflow is controlled by sluice gates. # Geology - predominantly Carboniferous rocks. Land use - lowland arable farming.	1987	976	109	569	129	7.65	53.5	01/01	1.41	01/08	14.4	6.19	2.48
	1988	1048	117	589	134	7.89	44.7	18/04	1.73	24/06	14.4	7.14	2.32
	1989	823	92	386	88	5.19	36.8	25/02	0.83	15/07	11.8	3.11	1.18
	1990	1114	124	521	118	7.00	43.2	25/01	1.28	28/09	18.3	4.68	1.61
017003 Bonny Water at Bonnybridge C.A: 50.5 km²	**71-85**	**1179**		**765**		**1.23**	**37.8**	**18/09 1985**	**0.15**	**20/09 1978**	**2.7**	**0.68**	**0.25**
M.A: FRPB Level: 23m Local Number:													
F.A.R: EI B.F.I: .45 Sensitivity:	1986	1395	118	956	125	1.53	21.0	30/12	0.29	23/07	3.5	0.91	0.37
Comment: Open river section with rock bar low flow control. Possible shift in control. Floodplain at 2.1m on left bank. Severe congestion by aquatic weeds in summer neccesitates large correction to recorded stage. Low flows affected by effluent discharge. # Catchment composed of Carboniferous rocks with igneous intrusions. Land use - predominantly rural with urban development at Cumbernauld in the headwaters.	1987	1110	94	776	101	1.24	17.7	27/12	0.28	02/07	3.2	0.72	0.33
	1988	1333	113	1044	136	1.67	23.7	14/08	0.33	27/06	3.8	1.21	0.46
	1989	1095	93	739	97	1.18	18.0	23/03	**0.14**	**01/08**	2.7	0.75	0.23
	1990	1483	126	1135	148	1.82	**51.5**	**06/10**	0.26	28/05	4.2	0.90	0.33
017004 Ore at Balfour Mains C.A: 162.0 km²	**72-85**	**858**		**378**		**1.94**	**52.8**	**10/02 1977**	**0.09**	**21/08 1973**	**4.5**	**1.18**	**0.20**
M.A: FRPB Level: 23m Local Number:													
F.A.R: EI B.F.I: .56 Sensitivity:	1986	967	113	473	125	2.43	25.1	05/12	0.50	07/10	4.7	1.80	0.69
Comment: Open river section with stable rock bar low flow control, has shown instability at right bank. A railway embankment forms the right bank, whilst the left bank is steep to the floodplain at 1.6m. Low flows moderately affected by pumping from collieries. # The catchment is in the coal mining area of west Fife and is composed of Carboniferous rocks. Land use - arable farming.	1987	930	108	495	131	2.54	28.8	01/01	0.88	06/05	4.8	1.85	0.99
	1988	981	114	482	128	2.47	26.6	18/04	0.25	30/06	4.9	1.87	0.83
	1989	741	86	308	81	1.58	20.6	25/02	0.32	04/08	3.2	1.04	0.43
	1990	1024	119	425	112	2.18	26.3	25/01	0.44	15/06	5.0	1.32	0.52
017005 Avon at Polmonthill C.A: 195.3 km²	**71-85**	**990**		**579**		**3.58**	**111.4**	**21/09 1985**	**0.44**	**26/07 1984**	**8.7**	**1.75**	**0.58**
M.A: FRPB Level: 4m Local Number:													
F.A.R: EI B.F.I: .41 Sensitivity:	1986	1181	119										
Comment: Velocity-area station; the river takes a sharp left turn upstream at a site of river capture. Unstable gravel control replaced by gabion weir in 1990. There is a small island in mid-channel immediately below the station which forms the high flow control. The banks have contained all recorded flows. Low flows are moderately affected by effluent discharges. Extensive moorland drainage schemes in headwaters. # Geology - Carboniferous sedimentaries. The catchment is predominantly rural with a few small former coal-mining towns.	1987	956	97	674	116	4.17	49.6	27/12	0.77	10/08	10.7	2.25	0.91
	1988	1074	108	741	128	4.58	50.0	29/11	0.67	21/09	10.6	2.84	0.90
	1989	890	90	557	96	3.45	67.3	11/01	0.55	12/09	8.0	1.56	0.61
	1990	1231	124	785	136	4.86	**132.9**	**06/10**	0.63	30/07	12.6	2.30	0.69
017008 South Queich at Kinross C.A: 33.7 km²													
M.A: FRPB Level: m Local Number:													
F.A.R: N B.F.I: .47 Sensitivity:	1986												
Comment: Velocity-area station with stable control. Upstream of road bridge. All recorded flows contained. Not rated at high flow (typical high flows probably accurate to within 20%). Natural flows (apart from effect of agricultural drainage); previously contained sand and gravel workings though these had a minor influence. # Rural catchment.	1987												
	1988			863		0.92	7.7	18/04	0.12	15/06	1.9	0.69	0.13
	1989			711		0.76	8.9	09/03	0.08	09/08	1.8	0.35	0.10
	1990	1426		1019		1.09	21.5	06/10	0.10	23/06	2.8	0.50	0.14
017012 Red Burn at Castlecary C.A: 22.0 km²													
M.A: FRPB Level: 46m Local Number:													
F.A.R: E B.F.I: .36 Sensitivity:	1986	1374											
Comment: Velocity-area station. Low flow control is a gravel bar 20m d/s. Large boulders probably form high flow control. The section will probably contain all flows. At 95 percentile flow STW discharges account for half of the flow. # A gently sloping catchment rising to 185m. Geology is entirely Carboniferous with much boulder clay cover. Land use is mixed agriculture except for the 16% covered by Cumbernauld New Town. There are two small lochs in the southern headwaters.	1987	1096		799		0.56	18.2	15/08	0.09	10/08	1.4	0.29	0.11
	1988	1297		1065		0.74	23.1	13/08	0.11	15/06	1.7	0.45	0.14
	1989	1046		777		0.54	13.4	19/08	0.10	12/07	1.2	0.31	0.11
	1990	1427		1257		0.88	46.7	06/10	0.14	05/08	2.2	0.39	0.15
017015 North Queich at Lathro C.A: 23.1 km²													
M.A: FRPB Level: m Local Number: 61													
F.A.R: N B.F.I: .46 Sensitivity:	1986	1371											
Comment: Velocity-area station. Fairly stable control dominated by sharp bend d/s of station, not gauged accurately at high flows. Installed to assess inflows to Loch Leven. Flows are natural. # A mainly arable catchment with some sheep farming on the higher ground.	1987	1145		953		0.70	11.1	26/03	0.08	12/07	1.7	0.42	0.10
	1988	1301		1109		0.81					1.9	0.55	0.10
	1989	1122		803		0.59	11.9	14/02	0.03	24/07	1.6	0.24	0.04
	1990	1443		1170		0.86	12.6	06/10	0.04	23/06	2.6	0.37	0.07
017016 Lochty Burn at Whinnyhall C.A: 14.0 km²													
M.A: FRPB Level: m Local Number: 54													
F.A.R: GI B.F.I: .60 Sensitivity:	1986			557		0.25	3.7	04/12	0.05	05/07	0.4	0.20	0.07
Comment: Concrete Flat V weir situated under a bridge which will contain all flows. Until 1991 the control was a gabion weir 5m d/s of the bridge. The site is immediately d/s of the large Westfield opencast coal mine; this has a significant influence on flows, particularly as a result of groundwater issuing from breached faults.	1987			643		0.29	3.2	01/01	0.09	31/01	0.4	0.22	0.14
	1988			506		0.22	3.0	18/04	0.05	11/07	0.4	0.17	0.07
	1989			427		0.19	3.2	25/02	0.06	31/05	0.3	0.15	0.11
	1990			547		0.24	2.8	06/10	0.03	14/06	0.5	0.15	0.08
018001 Allan Water at Kinbuck C.A: 161.0 km²	**57-85**	**1307**		**950**		**4.85**	**101.4**	**28/07 1958**	**0.35**	**19/09 1976**	**10.9**	**2.98**	**0.78**
M.A: FRPB Level: 93m Local Number:													
F.A.R: N B.F.I: .45 Sensitivity: 7.1	1986	1612	123	1210	127	6.18	64.1	04/12	0.76	26/09	14.1	3.59	0.98
Comment: Velocity-area station; stage recorder is sited 40m upstream of a twin-arch bridge which acts as a control at all stages. Gabions were installed in 1980 beneath one arch to stabilise the control. The section has steep banks which contain all floods. The rating is stable and well defined throughout the full range. Flows are broadly natural. Level of control protected by Scottish Development Department - now SOE. # The river flows through a broad flat valley. Lateral tributaries drain steep hillsides. Geology - predominantly Old Red Sandstone.	1987	1216	93	872	92	4.45	61.5	26/03	0.85	11/08	10.1	2.88	1.11
	1988	1582	121	1215	128	6.18	60.4	18/04	0.93	29/06	12.7	4.53	1.21
	1989	1380	106	965	102	4.93	64.0	09/03	0.60	04/08	11.3	2.56	0.69
	1990	1737	133	1247	131	6.37	77.2	06/10	0.85	07/08	16.3	3.17	1.02

		Period	Rainfall (mm)	% of pre-1986	Runoff (mm)	% of pre-1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
018002	**Devon at Glenochil** C.A: 181.0 km²	**59-85**	*1260*		**752**		**4.32**	**109.1**	**08/08**	**0.53**	**25/09**	**9.1**	**2.71**	**0.98**
M.A: FRPB	Level: 6m Local Number:								**1972**		**1976**			
F.A.R: SI	B.F.I: .55 Sensitivity: 4.3	1986	1708	136	902	120	5.18	67.7	25/11	1.04	30/09	11.0	3.62	1.21
Comment: This natural section has steep banks and a good stable flood rating. The low flow control is a gravel bar under a road bridge 100m downstream. Severe weed growth in summer and very low velocities make low flow measurement difficult. The RAFT rising air-bubble technique has been used unsuccessfully. Low flows are moderated by Castlehill Reservoir in the headwaters, commissioned in 1977. River level protected by SDD (now SOE). # Headwaters are steep and composed of extrusive igneous rocks; the lower valley is broad and very flat.		1987	1364	108	678	90	3.89	40.7	27/03	1.05	05/08	7.5	2.87	1.44
		1988	1506	120	887	118	5.08	33.0	14/08	1.45	30/06	9.6	4.13	1.55
		1989	1290	102	662	88	3.80	39.2	09/03	0.82	15/07	8.2	2.20	0.90
		1990	1632	130	943	125	5.41	64.8	24/02	1.10	28/05	12.8	2.90	1.29
018003	**Teith at Bridge of Teith** C.A: 518.0 km²	**57..85**	*1921*		**1319**		**21.67**	**303.9**	**05/01**	**2.07**	**19/09**	**50.4**	**12.76**	**4.07**
M.A: FRPB	Level: 15m Local Number:								**1983**		**1959**			
F.A.R: SPI	B.F.I: .43 Sensitivity: 6.5	1986	2601	135	1895	144	31.13	217.4	22/03	3.88	19/09	84.7	14.90	4.24
Comment: A well sited station on a straight, natural river section which is 70m wide. On 6/6/56 the recorder was moved downstream to its current position. No rating is available for the earlier period from 7/4/40. The banks are steep to 3m and have contained all recorded floods. Six large lochs in the catchment - some of which supply water to Glasgow. There are abstractions for industry in Doone. Regulation for HEP affects hourly but not daily flows. # Complex geology - predominantly metamorphic rocks. The Teith drains from the Trossachs.		1987	1796	93	1195	91	19.64	149.4	31/12	3.79	11/08	44.1	12.59	4.74
		1988	2336	122	1760	133	28.83	176.6	01/01	3.15	30/06	59.5	21.21	4.91
		1989	2252	117	1652	125	27.13	271.2	06/02	3.56	23/07	69.8	13.14	4.11
		1990	2688	140	1992	151	32.71	**361.8**	**05/02**	4.28	29/05	90.6	16.06	4.63
018005	**Allan Water at Bridge of Allan** C.A: 210.0 km²	**71-85**	**1259**		**914**		**6.09**	**112.6**	**31/12**	**0.58**	**27/08**	**14.4**	**3.71**	**0.81**
M.A: FRPB	Level: 11m Local Number:								**1983**		**1984**			
F.A.R: I	B.F.I: .47 Sensitivity: 8.7	1986	1544	123	1365	149	9.09	87.0	04/12	1.00	25/09	22.1	6.30	1.13
Comment: Velocity-area station; the recorder is sited in a natural reach with a vertical stone wall on the right bank. The left bank is steep to 2.6m. The flood rating is stable but large boulders make current metering a problem at low flows. The site is within a caravan park so the low flow control is susceptible to rearrangment by children. Station useful for obtaining flood data, as flooding frequently occurs in the town of Bridge of Allan. # The Allan Water has a broad flat valley with steep lateral tributaries. Geology predominantly Old Red Sandstone.		1987	1180	94	850	93	5.66	79.2	27/03	1.06	09/08	12.2	3.80	1.39
		1988	1526	121	1115	122	7.40	69.6	18/04	0.94	28/06	15.4	5.38	1.15
		1989	1313	104	918	100	6.12	74.7	09/03	0.79	24/07	14.0	3.32	0.87
		1990	1676	133	1204	132	8.02	97.8	06/10	1.14	07/08	20.8	4.27	1.33
018007	**Devon at Fossoway Bridge** C.A: 69.5 km²													
M.A: FRPB	Level: 160m Local Number:													
F.A.R: SR	B.F.I: .50 Sensitivity: 3.9	1986			1090		2.40	37.2	04/12	0.39	04/10	5.9	1.27	0.44
Comment: Velocity-area station downstream of Castlehill reservoir. A poor site with an insensitive and unstable broad gravel control and banks which did not contain all flows; it was closed in 1990 and replaced by a new station immediately below the reservoir. There are several other reservoirs in the catchment. # A rural catchment with rolling hills used for sheep grazing.		1987			738		1.63	23.3	04/01	0.41	06/08	3.5	1.04	0.43
		1988			1016		2.23	20.8	25/10	0.40	27/06	4.5	1.66	0.44
		1989			739		1.63	24.0	09/03	0.26	19/09	4.4	0.65	0.40
		1990	1961		1117		2.46	46.2	24/02	0.47	09/08	6.7	1.03	0.50
018008	**Leny at Anie** C.A: 190.0 km²	**73-85**	**2248**		**1959**		**11.80**	**118.1**	**03/03**	**0.16**	**25/08**	**30.0**	**6.86**	**0.64**
M.A: FRPB	Level: 120m Local Number:								**1979**		**1984**			
F.A.R: N	B.F.I: .36 Sensitivity: 10.2	1986	2954	131	2668	136	16.08	85.4	22/03	0.91	16/07	44.0	7.61	1.25
Comment: A well sited station on a natural section of an upland gravel bed river draining steep slopes. The site is adjacent to a picnic area so the gravel bar low flow control is susceptible to rearrangement by children. The response of the catchment is damped by two large natural storage lochs. # The catchment is underlain by metamorphic rocks with igneous intrusions. Mostly open heather moorland; rugged topography.		1987	1968	88	1766	90	10.64	68.4	31/12	0.86	11/08	28.1	6.05	1.62
		1988	2549	113	2479	127	14.90	96.6	13/01	0.44	30/06	33.2	10.13	1.67
		1989	2558	114	2291	117	13.80	112.0	07/02	0.23	24/07	36.4	6.53	0.95
		1990	3098	138	2630	134	15.85	**162.4**	**04/02**	0.61	31/05	43.1	8.00	1.08
018010	**Forth at Gargunnock** C.A: 397.0 km²													
M.A: FRPB	Level: 4m Local Number:													
F.A.R: N	B.F.I: .35 Sensitivity: 4.4	1986	1981		1361		17.38	100.2	25/11	1.01	26/07	47.8	8.22	1.23
Comment: Velocty-area station with control at road bridge. Difficult to measure slow velocities by current meter at low stages. The rising air bubble technique (RAFT) was used at low stages, but now it has been successfully rated by current meter 5km u/s.		1987	1482		985		12.40	92.4	27/03	1.39	11/08	34.5	6.20	1.68
		1988	1916		1347		16.91	92.3	03/02	1.13	30/06	41.0	11.43	1.77
		1989	1743		1144		14.41	95.2	15/01	0.73	26/07	41.1	6.86	1.07
		1990	2058		1413		17.79	101.5	11/03	0.51	29/07	52.4	7.59	0.92
018011	**Forth at Craigforth** C.A: 1036.0 km²	81-85	*1650*		1457		47.85	486.4	05/01	2.96	16/08	118.9	27.83	4.05
M.A: FRPB	Level: 4m Local Number:								1983		1984			
F.A.R: N	B.F.I: .41 Sensitivity:	1986	2234	135	1755	120	57.65	368.4	04/12	5.45	18/07	152.2	30.78	6.05
Comment: Originally opened in 1972 - known as Drip Bridge. Rebuilt on same site in 1982. 70m wide section - part of a large meander just above the tidal limit. Left bank floods at high stages. Low flows measured d/s in tidal section. Large tides can influence levels for short periods; data corrected. Flow velocities low, but stable control. A good rating exists over the whole range. # Geology - Devonian and Carboniferous sedimentaries in lower catchment; metamorphic rocks with igneous intrusions above. Mostly heather moorland; rugged.		1987	1598	97	1187	81	39.01	239.3	28/12	5.46	11/08	96.3	24.02	6.96
		1988	2076	126	1634	112	53.55	282.2	13/01	4.55	30/06	118.2	38.20	7.27
		1989	1940	118	1496	103	49.16	411.7	07/02	3.45	21/07	122.6	25.95	5.22
		1990	2327	141	1803	124	59.23	542.7	05/02	5.17	28/07	164.1	29.26	6.08
018013	**Black Devon at Fauld Mill** C.A: 67.0 km²													
M.A: FRPB	Level: 9m Local Number:													
F.A.R: P	B.F.I: .39 Sensitivity: 19.8	1986			496		1.05	27.3	04/12	0.10	06/10	2.3	0.59	0.12
Comment: Concrete weir control which is stable, so a good rating exists over whole range. Control subject to interference by children damming with bricks in summer. Station commisioned to replace unsatisfactory flume station further upstream at Little Saline.		1987			393		0.84	7.3d	27/12	0.07	06/05	2.0	0.43	0.11
		1988			472		1.00	8.4d	18/04	0.16	26/06	2.1	0.62	0.19
		1989			333		0.71	17.0	16/12	0.07	11/07	1.5	0.36	0.15
		1990			494		1.05	20.5	06/10	0.12	07/11	2.7	0.40	0.18
018014	**Bannockburn at Bannock Burn** C.A: 23.7 km²													
M.A: FRPB	Level: 12m Local Number:													
F.A.R: P	B.F.I: .54 Sensitivity: 14.1	1986	1596		1417		1.07	23.7	09/01	0.25	25/09	2.4	0.67	0.28
Comment: Gabion river control initially showed signs of instability, but is now stable. Small reservoirs in catchment have a slight effect on otherwise natural flows. # Catchment is mostly moorland.		1987	1172		955		0.72	10.1	26/03	0.21	05/08	1.4	0.53	0.28
		1988	1541		1365		1.02	12.3	12/01	0.26	24/06	2.1	0.68	0.29
		1989	1385		1126		0.85	20.9	09/03	0.20	09/07	1.9	0.45	0.22
		1990	1792		1473		1.11	23.2	06/10	0.22	16/06	2.8	0.48	0.23
018015	**Eas Gobhain at Loch Venachar** C.A: 202.0 km²													
M.A: FRPB	Level: 79m Local Number:													
F.A.R: RP	B.F.I: .57 Sensitivity:	1986			1113		7.13	29.9	16/11	2.48	10/07	19.6	3.10	2.79
Comment: Sharp crested measuring weir control of good stability, but control hydrologically insensitive. No high flow gauging facility; theoretical rating used, but considered unreliable at high flows. Station was built to monitor compensation water from Loch Venachar.		1987			742		4.75	27.6	29/12	2.60	12/12	10.0	3.11	2.73
		1988			1100		7.03					15.6	4.34	2.80
		1989			1027		6.58	34.9	06/02	2.66	13/12	17.3	3.12	2.74
		1990			1119		7.17	55.6	04/02	2.73	22/05	20.0	3.34	
018016	**Kelty Water at Clashmore** C.A: 2.8 km²													
M.A: FRPB	Level: m Local Number: 56													
F.A.R: N	B.F.I: .15 Sensitivity:	1986	2430		1707		0.15	3.1	25/05	0.00	30/06	0.5	0.06	>0.00
Comment: Two trapezoidal flumes in parallel. Occasionally overtopped by up to 100mm (flume rating is extrapolated), but it does not drown. Flows are flashy. # A steep catchment with thin soils. About 80% is covered with mature forest.		1987	1823		1048		0.09	2.0	05/06	0.00	04/08	0.3	0.03	>0.00
		1988	2359		1433		0.12	1.7	01/02	0.00	18/06	0.3	0.06	>0.00
		1989	2141		1232		0.11	1.8	19/08	0.00	02/06	0.3	0.04	
		1990	2484		1487		0.13	2.1	02/10	0.00	01/08	0.4	0.05	>0.00

	Period	Rainfall (mm)	% of pre-1986	Runoff (mm)	% of pre-1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
018017 **Monachyle Burn at Balquhidder** C.A: 7.7 km²	82-85			1745		0.43	22.6	30/03	0.00	04/10	1.3	0.17	0.01
M.A: IH Level: m Local Number: 726								1982		1983			
F.A.R: N B.F.I: .18 Sensitivity:	1986	3280		2522	145	0.62	19.0	09/01	0.03	30/06	1.9	0.19	0.03
Comment: Crump profile weir (capacity 26 m^3s^{-1} - 50 yr flood). Calibration is based on current meter gaugings. Natural. Heather moorland causes large interception losses. IH experimental catchment. # Steep-sided glaciated valley with shallow peats, peaty gleys and upland brown earths overlying mica schist; deeper peat found on the more gently sloping upper catchment. Grasses predominate in the lower basin, heather above - some exposed rock. Afforestation began 1987.	1987	2255		1724	99	0.42	11.1	20/08	0.03	08/08	1.3	0.16	0.04
	1988	2952		2389	137	0.58	18.4	25/10	0.02	27/06	1.5	0.27	0.04
	1989	2985		2397	137	0.59	21.6	13/01	0.01	16/07	1.6	0.20	0.03
	1990	3683		2842	163	0.68	18.4	04/02	0.01				
018018 **Kirkton Burn at Balquhidder** C.A: 6.9 km²	83-85			1818		0.39	11.4	15/10	0.02	31/08	0.9	0.22	0.03
M.A: IH Level: m Local Number: 723								1983		1983			
F.A.R: N B.F.I: .40 Sensitivity:	1986	2789		2242	123	0.49	9.3	15/11	0.04	24/09	1.3	0.25	0.06
Comment: Crump profile weir (capacity 30 m^3s^{-1} - 50 yr flood), steep channel, approach conditions not ideal, calibration based on gaugings. Natural flow regime; a few lochans provide local storage. An IH experimental catchment. # Steep-sided glaciated valley. Shallow peat, gleys and brown earths overlay mica schist. 35% coniferous forest (1982), heather and grass. Clear felling of forest began 1986; 20% cover by 1990.	1987	1899		1592	88	0.35	7.0	20/08	0.05	27/05	0.8	0.21	0.08
	1988	2493		2126	117	0.45	12.2	25/10	0.03				
	1989	2519		2098	115	0.46	13.6	13/01	0.04				
	1990	3092		2354	129	0.51	19.7	04/02	0.04				
018019 **Comer Burn at Comer** C.A: 0.9 km²													
M.A: FRPB Level: m Local Number: 59													
F.A.R: N B.F.I: .15 Sensitivity:	1986	3459											
Comment: The station was run in conjunction with the DAFFS Pitlochry fisheries laboratory for the duration of a project which terminated in 1988. # The catchment consists entirely of the side of a mountain. It is mostly steep, with some areas of peat bog and some bare rock.	1987	2415		2448		0.07	5.2	20/08	0.00	17/01	0.2	0.03	>0.00
	1988	3070		3399		0.10	1.3d	25/10	0.00	25/06	0.2	0.05	0.01
	1989	3044											
	1990	3366											
019001 **Almond at Craigiehall** C.A: 369.0 km²	**57-85**	**877**		**473**		**5.54**	**199.6**	**03/11**	**0.24**	**09/10**	**12.6**	**2.76**	**0.86**
M.A: FRPB Level: 23m Local Number:								**1984**		**1959**			
F.A.R: PEI B.F.I: .39 Sensitivity:	1986	1098	125	701	148	8.20	166.0	30/12	0.83	18/10	19.9	4.39	1.12
Comment: The recorder is well sited on a straight even reach with steep banks which have contained all recorded floods. Stable rating over the period of record. Weed growth in summer some adjustment to stage is required. Low flows substantially affected by sewage effluent especially from Mid Calder. Abstraction at Almondell to feed a canal. A number of storage reservoirs are situated in the catchment. # Geology - predominantly Carboniferous rocks. Land use - mainly rural. Livingston new town and several small mining towns in catchment.	1987	928	106	540	114	6.32	86.4	20/01	0.92	24/08	15.4	3.29	1.32
	1988	928	106	547	116	6.38	79.4	29/11	1.06	30/06	13.3	3.95	1.49
	1989	807	92	422	89	4.93	142.6	11/01	0.71	13/07	10.9	2.38	0.98
	1990	1149	131	679	144	7.95	**220.0**	**06/10**	1.01	29/07	19.7	3.04	1.20
019002 **Almond at Almond Weir** C.A: 43.8 km²	**62-85**	**1052**		**679**		**0.94**	**26.5**	**03/11**	**0.04**	**23/06**	**2.3**	**0.45**	**0.16**
M.A: FRPB Level: 128m Local Number:								**1984**		**1980**			
F.A.R: E B.F.I: .34 Sensitivity:	1986	1297	123	902	133	1.25	24.9	30/12	0.14	16/10	3.3	0.58	0.17
Comment: The control is a broad-crested masonry weir of a former pumping station intake works. The sluice is permanently closed. The structure has been rated by current metering to 0.6m, there is no cableway. Structure-full, at 1.4m has been exceeded several times during the period of record. Land use changes may have affected the flow regime. # Mainly plateau moorland (much artificially drained) - substantial afforestation in the headwaters. Predominantly rough pasture with small mining communities in the valley.	1987	1048	100	715	105	0.99	15.3	20/01	0.12	12/05	2.6	0.46	0.16
	1988	1083	103	668	98	0.93	11.7	09/02	0.13	18/06	2.0	0.55	0.19
	1989	922	88	495	73	0.69	11.5	11/01	0.11	16/07	1.6	0.38	0.15
	1990	1334	127	693	102	0.96	17.8	06/10	0.09	31/05	2.4	0.42	0.15
019004 **North Esk at Dalmore Weir** C.A: 81.6 km²	**60-85**	**934**		**575**		**1.49**	**37.7**	**03/11**	**0.14**	**25/07**	**3.1**	**0.98**	**0.35**
M.A: FRPB Level: 132m Local Number:								**1984**		**1984**			
F.A.R: SEI B.F.I: .54 Sensitivity: 36.9	1986	1094	117	707	123	1.83	16.0	04/03	0.29	29/06	3.8	1.33	0.42
Comment: The control is a dog-legged 25m wide ogee section masonry weir rated entirely by current meter. There is no cableway and the gauging is correlated to a stage of 0.34m. Several small storage reservoirs in the headwaters. # The catchment drains the SE slopes of the Pentland hills. Geology - Carboniferous and Devonian sedimentaries with igneous intrusions. Rural catchment - mostly rough grazing.	1987	946	101	582	101	1.51	14.8	18/10	0.37	23/05	3.0	1.11	0.51
	1988	972	104	571	99	1.47	12.0	02/01	0.23	12/06	2.9	1.09	0.35
	1989	793	85	412	72	1.06	12.8	23/03	0.26	27/07	2.0	0.65	0.30
	1990	1223	131	760	132	1.97	**52.1**	**06/10**	0.28	31/08	4.7	1.10	0.37
019005 **Almond at Almondell** C.A: 229.0 km²	**62-85**	**930**		**513**		**3.72**	**165.8**	**30/10**	**0.19**	**14/10**	**8.7**	**1.81**	**0.51**
M.A: FRPB Level: 73m Local Number:								**1977**		**1972**			
F.A.R: PEI B.F.I: .35 Sensitivity:	1986	1195	128	738	144	5.36	91.3	30/12	0.54	24/07	14.5	2.85	0.72
Comment: Informal Flat V weir - installed at the site in June 1970. Structure widened and a sluice incorporated - June 1971. Previous control - natural bar with large boulders. Calibration is entirely by c/m. Immediately above the station a measured quantity of water is abstracted to supply a canal. Low flows - significantly increased by discharge from East Calder sewage works. # The catchment is composed of mainly Carboniferous rocks. Land use - predominantly rural. Livingston new town and several small coal mining towns in catchment.	1987	995	107	578	113	4.19	49.8	20/01	0.62	09/08	11.6	2.08	0.77
	1988	999	107	565	110	4.09	48.3	29/11	0.55	18/06	9.2	2.52	0.72
	1989	886	95	440	86	3.19	84.7	11/01	0.45	16/07	7.1	1.48	0.57
	1990	1266	136	701	137	5.09					13.6	2.09	0.78
019006 **Water of Leith at Murrayfield** C.A: 107.0 km²	**63-85**	**867**		**401**		**1.36**	**84.9**	**03/11**	**0.13**	**20/07**	**2.8**	**0.74**	**0.33**
M.A: FRPB Level: 38m Local Number:								**1984**		**1978**			
F.A.R: SR B.F.I: .48 Sensitivity: 12.3	1986	1048	121	585	146	1.98	37.1	04/12	0.41	01/10	4.3	1.19	0.56
Comment: Velocity-area station in a straight even reach 50m upstream of a road bridge. The right bank is a vertical wall and the left bank is steep to 2.6m. The high flow control is possibly the piers of a railway bridge 0.5km downstream. The catchment contains several storage reservoirs. # The headwaters of the catchment are in the Pentland Hills. The lower part of the catchment has undergone urban development.	1987	917	106	466	116	1.58	40.8	18/10	0.53	08/07	3.0	1.13	0.61
	1988	894	103	426	106	1.44	32.0	29/11	0.51	11/06	2.4	1.03	0.61
	1989	749	86	374	93	1.27	27.8	11/01	0.41	10/10	2.6	0.72	0.49
	1990	1082	125	564	141	1.91	**87.2**	**06/10**	0.29	12/09	4.1	0.92	0.39
019007 **Esk at Musselburgh** C.A: 330.0 km²	**62-85**	**836**		**377**		**3.95**	**175.6**	**14/08**	**0.68**	**31/05**	**8.0**	**2.32**	**0.95**
M.A: FRPB Level: 3m Local Number:								**1966**		**1982**			
F.A.R: SPEI B.F.I: .53 Sensitivity: 7.2	1986	965	115	463	123	4.84	47.4	30/12	1.16	17/10	10.2	3.37	1.44
Comment: Velocity-area station in a section with steep banks. High rating appears to oscillate with periodic dredging and accretion of a bar on the right bank. Flows abstracted upstream of the main station along a mill lade were monitored (until late 1980s) - summation needed to give total basin runoff. Floods of 1891 and 1948 reached about 1m above bankfull at Inversesk Mill. # The catchment is predominantly exposed moorland (on Carboniferous sediments) of the Moor foothills with several small former mining towns in the valley.	1987	867	104	407	108	4.26	46.9	18/07	1.62	04/10	8.2	3.03	1.88
	1988	852	102	401	106	4.18	41.6	02/01	0.88	30/06	7.7	2.93	1.27
	1989	659	79	258	68	2.70	37.4	11/01	**0.67**	**08/08**	5.0	1.67	0.79
	1990	1041	125	515	137	5.39	174.8	06/10	0.84	19/06	12.5	2.95	0.99
019008 **South Esk at Prestonholm** C.A: 112.0 km²	**64-85**	**859**		**371**		**1.32**	**70.8**	**14/08**	**0.22**	**16/04**	**2.7**	**0.79**	**0.33**
M.A: FRPB Level: 77m Local Number:								**1966**		**1973**			
F.A.R: SG B.F.I: .55 Sensitivity: 15.5	1986	1009	117	474	128	1.68	12.6	30/12	0.35	14/08	3.6	1.17	0.48
Comment: Closed 1990; replaced by Cow Bridge. Was on a straight artificial cut which diverted the flow from a coal mining waste site. Crump weir control. Accretion upstream deflects the flow which is skewed at the weir crest. Theoretical calibration superseded by current meter gaugings. Low flows were moderately augmented by pumping from collieries. There are several small storage reservoirs in the headwaters. # The catchment is predominantly exposed moorland (developed on Carboniferous sediments) of the Moor foothills. Some mining (until late 1980s).	1987	908	106	471	127	1.67	16.3	18/07	0.53	01/06	3.2	1.14	0.61
	1988	883	103	460	124	1.63	23.5	01/02	0.29	30/06	3.2	1.09	0.45
	1989	660	77	246	66	0.87	3.5	04/02	0.23	21/06	1.7	0.69	0.35
	1990	1070	125										

		Period	Rainfall (mm)	% of pre-1986	Runoff (mm)	% of pre-1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
019009	**Bog Burn at Cobbinshaw** C.A: 8.5 km²	**63-85**	**924**		**534**		**0.14**	**2.5**	**31/10 1970**	**0.00**	**23/04 1973**	**0.3**	**0.12**	**0.02**
M.A: FRPB	Level: 256m Local Number:													
F.A.R: S	B.F.I: .64 Sensitivity: 14.5	1986												
Comment: Measures outflow from Cobbinshaw Reservoir (BWB). (Water is abstracted downstream from the Almond at Almondell for the Union Canal.) A trapezoidal flume which has never been overtopped. Flow regime is dominated by the reservoir operation. # A gently sloping moorland catchment with increasing forestry.		1987			500	94	0.13	0.9	05/02	0.04	07/07	0.3	0.10	0.04
		1988												
		1989			544	102	0.15	1.5	14/01	0.01	03/11	0.3	0.12	0.01
		1990			743	139	0.20	1.4	01/02	0.01	06/01	0.4	0.11	0.02
019010	**Braid Burn at Liberton** C.A: 16.2 km²	**69..85**	**750**		**261**		**0.13**	**11.2**	**28/05 1983**	**0.01**	**02/08 1984**	**0.2**	**0.09**	**0.03**
M.A: FRPB	Level: 50m Local Number:													
F.A.R:	B.F.I: .56 Sensitivity:	1986	905	121										
Comment: Flows were originally measured by a Crump profile weir and trapezoidal flume in parallel. The flume suffered from choking by domestic refuse and childrens dams and so was replaced in October 1985 by a second Crump profile weir at a lower level than the first. # The headwater tributaries are steep rising in the Pentland Hills, whilst the lower part of the catchment is urbanised. Several small reservoirs in headwaters. Complex geology - Silurian/Devonian sedimentaries and igneous intrusions.		1987	830	111										
		1988	796	106										
		1989	632	84	197	75	0.10	3.7	05/08	0.02	12/10	0.2	0.06	0.02
		1990	920	123	331	127	0.17	8.7	06/10	0.02	31/08	0.4	0.09	0.02
019011	**North Esk at Dalkeith Palace** C.A: 137.0 km²	**63-85**	*936*		**467**		**2.03**	**105.2**	**03/11 1984**	**0.33**	**29/08 1965**	**3.9**	**1.27**	**0.54**
M.A: FRPB	Level: m Local Number:													
F.A.R: GN	B.F.I: .52 Sensitivity: 9.0	1986	1048	112	590	126	2.56	27.4	30/12	0.55	17/10	5.9	1.71	0.77
Comment: The recorder is sited on a bend in a natural river reach immediately upstream of a footbridge. Flow velocities are faster near the right bank, especially in floods. The water is stained red from effluent pumped from mine workings. The right bank is a vertical stone wall, whilst the left bank slopes gently to the hut at 2.5m. # Geology - Carboniferous and Devonian sedimentaries with igneous intrusions. The headwaters drain the steep slopes of the Pentland Hills. Mostly rough grazing.		1987	920	98	504	108	2.19	50.3	27/12	0.69	06/11	4.1	1.44	0.87
		1988	930	99	570	122	2.47	55.2	02/01	0.75	30/06	4.3	1.53	0.85
		1989	752	80	384	82	1.67	60.2	11/01	0.48	27/07	2.8	0.92	0.54
		1990	1154	123	648	139	2.81	**113.9**	**06/10**	0.51	29/07	6.6	1.46	0.56
019012	**Water of Leith at Colinton** C.A: 72.0 km²													
M.A: FRPB	Level: 92m Local Number:													
F.A.R: SR	B.F.I: .54 Sensitivity: 19.9	1986												
Comment: Flat V weir. Flows fully contained in vertical channel walls. Built to measure compensation flows from reservoirs in the Lothian region; these dominate the summer hydrographs. Uses theoretical rating (confirmed by gauging). # Catchment is almost entirely rural. The SW edge of the catchment is steep (Pentland Hills) rising to over 500m; the rest has moderate slopes. There is some forestry and two major reservoirs.		1987			501		1.14	36.0	18/10	0.34	14/07	2.4	0.82	0.40
		1988			506		1.15	34.0	29/11	0.34	13/06	2.1	0.81	0.42
		1989			413		0.94	31.8	11/01	0.27	11/10	1.9	0.49	0.32
		1990			691		1.58	122.5	06/10	0.26	16/09	3.2	0.66	0.32
019017	**Gogar Burn at Turnhouse** C.A: 38.8 km²													
M.A: FRPB	Level: 32m Local Number:													
F.A.R:	B.F.I: .42 Sensitivity:	1986	946		487		0.60	12.0	30/12	0.05	13/10	1.4	0.33	0.06
Comment: Rated section with small low flow control and large masonary broad crested weir controlling higher flows. The river tends to flood upstream of the station with consequent damping of its hydrographs. # The catchment includes part of Edinburgh and the urban fraction is currently increasing. The rest is agricultural.		1987	808		399		0.49	8.5	18/10	0.07	09/08	1.1	0.31	0.11
		1988	767		359		0.44	6.4	01/02	0.04	30/06	0.9	0.31	0.08
		1989	660		271		0.33	12.9	11/01	0.02	03/08	0.8	0.15	0.03
		1990	934		450		0.55	17.3	06/10	0.01	14/09	1.4	0.25	0.02
020001	**Tyne at East Linton** C.A: 307.0 km²	**61-85**	**727**		**288**		**2.80**	**127.5**	**03/11 1984**	**0.33**	**06/09 1969**	**5.6**	**1.64**	**0.54**
M.A: FRPB	Level: 17m Local Number:													
F.A.R: EI	B.F.I: .52 Sensitivity: 8.4	1986	808	111	338	117	3.29	50.9	15/04	0.75	18/07	6.1	2.06	0.84
Comment: The low flow control is a gravel bar some 100m downstream. In 1970 a pipe crossing was constructed but did not unduly influence the rating. During 1982 recorded stage was adjusted during rebuilding of the road bridge 200m downstream. This provides a stable high-flow control. Allowance is made for weed growth during the summer when abstraction for irrigation also takes place. # The catchment is characterised by steep headwaters in the Lammermuir Hills and broad flat arable valleys. Geology - Silurian and Ordovician sedimentary rocks.		1987	796	109	339	118	3.30	50.3	26/08	0.92	09/07	6.3	2.31	1.15
		1988	698	96	242	84	2.35	57.2	06/01	0.58	24/06	4.7	1.49	0.73
		1989	497	68	108	38	1.06	8.4	26/02	0.53	01/12	1.8	0.85	0.54
		1990	847	117	285	99	2.77	**148.5**	**06/10**	0.53	22/09	6.0	1.14	0.62
020002	**West Peffer Burn at Luffness** C.A: 26.2 km²	**66-85**	**624**		**162**		**0.13**	**5.9**	**04/01 1982**	**0.00**	**29/08 1981**	**0.3**	**0.06**	**0.01**
M.A: FRPB	Level: 4m Local Number:													
F.A.R: I	B.F.I: .47 Sensitivity: 19.4	1986	627	100	166	102	0.14	2.1	30/01	0.01	27/07	0.3	0.07	0.03
Comment: The section is within steep banks on a straight reach of a small ditch with low gradient. Flows are measured by a trapezoidal flume and Crump profile weir in parallel. Low flows are severely reduced by abstraction for spray irrigation during dry summers. # The catchment drains flat arable land. A mainly impervious catchment with an extensive Boulder Clay cover.		1987	660	106	232	143	0.19	2.4	27/12	0.02	10/07	0.4	0.11	0.04
		1988	635	102	183	113	0.15	3.5	18/04	0.02	24/06	0.3	0.08	0.04
		1989	406	65	30	19	0.03	0.2	25/02	**0.00**	**17/07**	0.1	0.02	
		1990	651	104	112	69	0.09	4.0	06/10	0.00	15/09	0.2	0.03	0.01
020003	**Tyne at Spilmersford** C.A: 161.0 km²	**65-85**	**720**		**267**		**1.35**	**131.2**	**03/11 1984**	**0.14**	**20/09 1976**	**2.8**	**0.77**	**0.26**
M.A: FRPB	Level: 69m Local Number:													
F.A.R:	B.F.I: .49 Sensitivity: 26.3	1986	833	116										
Comment: The channel reach is within steep, high floodbanks which contain all floods. In September 1975 an irregular broad-crested weir was installed. Before that date the low flow control was a gravel bar. The gauge board was lowered by 0.125m on 1/9/69. Flows from this station are used as part of the Haddington flood warning system. # The headwaters drain exposed moorland.		1987	803	112	320	120	1.63	24.3	26/08	0.44	05/07	3.3	1.07	0.49
		1988	704	98	254	95	1.29	25.8	06/01	0.38	30/06	2.7	0.80	0.43
		1989	517	72	116	43	0.59	5.7	17/12	0.24	18/08	1.0	0.40	0.27
		1990	894	124	290	109	1.48	99.3	06/10	0.20	01/09	3.4	0.63	0.23
020004	**East Peffer Burn at Lochhouses** C.A: 31.1 km²	**67..85**	**609**		**208**		**0.20**	**19.3**	**04/01 1982**	**0.00**	**31/08 1974**	**0.4**	**0.08**	**0.01**
M.A: FRPB	Level: 4m Local Number:												-	
F.A.R: I	B.F.I: .36 Sensitivity: 19.4	1986			223	107	0.22	6.4	30/12	0.01	03/07	0.4	0.09	0.02
Comment: Crump weir and trapezoidal flume in parallel. Low flows are measured accurately but the low gradient and dense vegetation result in drowning during high flows. Second recorder d/s for non-modular computation is no longer used. Abstraction for spray irrigation seriously affects low flows during dry summers. Since 1990 a farmer's weir d/s has lead to problems of drowning. # The catchment is composed of flat arable land developed upon Boulder Clay; impervious strata below.		1987			325	156	0.32	7.7	02/01	0.02	01/08	0.6	0.11	0.03
		1988			214	103	0.21	7.6	06/01	0.01	30/06	0.3	0.08	0.03
		1989			29	14	0.03	1.5	16/12	0.00	27/07	0.1	0.02	>0.00
		1990			221	106	0.22	16.5	06/10	0.00	11/05	0.3	0.03	>0.00
020005	**Birns Water at Saltoun Hall** C.A: 93.0 km²	**65-85**	*715*		**321**		**0.95**	**94.6**	**03/11 1984**	**0.07**	**08/09 1969**	**1.9**	**0.53**	**0.17**
M.A: FRPB	Level: 72m Local Number:													
F.A.R: N	B.F.I: .49 Sensitivity: 8.2	1986	877	123										
Comment: A natural section on a straight well defined reach. The low flow control is a compound irregular broad-crested weir. Rating is entirely by current meter. Before installation of the cableway the high flow rating was calculated by correlation with Spilmersford (20003) and current meter measurements from a bridge 100m upstream. There are a few small storage reservoirs in the catchment, otherwise flows are natural. # The catchment drains the upland moorland of the Lammermuir Hills. Geology - Silurian/Devonian sedimentaries.		1987	848	119	370	115	1.09	16.6	01/03	0.29	08/07	2.2	0.69	0.36
		1988	745	104	302	94	0.89	24.6	06/01	0.26	20/07	1.8	0.55	0.28
		1989	542	76	143	45	0.42	4.9	17/12	0.17	04/08	0.8	0.25	0.17
		1990	934	131	359	112	1.06	67.6	06/10	0.16	01/09	2.4	0.40	0.17

		Period	Rainfall (mm)	% of pre-1986	Runoff (mm)	% of pre-1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
020006	**Biel Water at Belton House** C.A: 51.8 km²	**73-85**	*812*		**352**		**0.58**	**45.2**	**02/10 1981**	**0.10**	**05/10 1973**	**1.0**	**0.37**	**0.14**
M.A: FRPB	Level: 14m Local Number:													
F.A.R: N	B.F.I: .62 Sensitivity: 30.8	1986	775	95	385	109	0.63	11.9	04/03	0.12	07/09	1.1	0.44	0.24
Comment: Velocity-area station. The section is a well defined straight channel whose banks have contained all recorded floods. An irregular broad-crested weir of gabions was installed in 1969. The rating has changed slightly as the control has settled. Flow regime is flashy and broadly natural. # The catchment drains part of the north-east Lammermuir Hills. Predominantly moorland. Geology - Silurian and Ordovician sedimentary rocks.		1987	823	101	446	127	0.73	10.2	18/07	0.27	10/08	1.3	0.54	0.32
		1988	714	88	312	89	0.51					0.9	0.37	0.24
		1989	519	64	158	45	0.26	1.9	25/02	0.12	19/09	0.4	0.22	0.14
		1990	794	98	274	78	0.45	29.7	06/10	0.10	28/06	0.9	0.22	0.13
020007	**Gifford Water at Lennoxlove** C.A: 64.0 km²	**73-85**	**788**		**363**		**0.74**	**75.6**	**28/05 1983**	**0.11**	**05/09 1973**	**1.5**	**0.44**	**0.17**
M.A: FRPB	Level: 51m Local Number:													
F.A.R: N	B.F.I: .57 Sensitivity: 19.7	1986	893	113	411	113	0.83	24.5	15/04	0.19	20/07	1.7	0.46	0.24
Comment: Velocity-area station. The recorder is sited immediately downstream of a footbridge on a slight bend in a natural channel. The low flow control is a stable rock bar. The flow regime is flashy. # Geology - predominantly Silurian and Ordovician beds. The catchment drains the steep moorland slopes of the Lammermuir Hills.		1987	887	113	377	104	0.76	31.2	18/07	0.19	14/07	1.4	0.56	0.23
		1988	771	98	288	79	0.58	23.4	06/01	0.20	03/10	1.2	0.38	0.23
		1989	533	68	128	35	0.26	2.7	25/02	0.12	04/08	0.4	0.21	0.13
		1990	890	113	283	78	0.57	62.9	06/10	**0.11**	**13/09**	1.1	0.26	0.12
020008	**Brox Burn at Broxmouth** C.A: 19.7 km²													
M.A: FRPB	Level: 9m Local Number:													
F.A.R:	B.F.I: .65 Sensitivity:	1986	723		235		0.15	2.8	04/03	0.02	17/10	0.3	0.09	0.03
Comment: Sharp-crested weir in gravel channel. Vertical wall on left, sloping bank on right. Not calibrated at high flow. Closed in 1986 because record was considered to be long enough. # Rural catchment with no major artificial influences on the flow.		1987	825		194		0.12	24.4	26/08	0.01	15/01	0.2	0.14	0.01
		1988	695											
		1989	466											
		1990	776											
021003	**Tweed at Peebles** C.A: 694.0 km²	**59-85**	**1189**		**675**		**14.86**	**481.4**	**15/01 1962**	**1.93**	**11/10 1959**	**31.5**	**9.69**	**3.19**
M.A: TWRPB	Level: 155m Local Number: 694													
F.A.R: SP	B.F.I: .55 Sensitivity: 6.6	1986	1469	124	852	126	18.76	145.0	09/11	3.43	17/10	40.6	13.63	4.16
Comment: Natural section with stable gravel bed. Cableway. From 1939 to 1958 flows measured at Priorsford Bridge about 360m upstream; records correlated from 1950. Storage at Talla, Fruid, Baddinsgill and Watch Water Reservoirs - overall runoff is diminished; monthly naturalised flows available. # Upland catchment developed on impervious Palaeozoic and igneous formations - with substantial Drift cover in the valleys. Hill grazing predominates; some improved grassland to the north.		1987	1165	98	667	99	14.67	233.7	18/10	4.59	25/05	24.6	10.86	5.58
		1988	1201	101	703	104	15.43	170.3	01/02	3.27	24/06	29.7	11.18	4.06
		1989	1061	89	542	80	11.94	132.4	11/01	2.71	04/08	25.3	6.79	2.91
		1990	1463	123	953	141	20.98	227.4	06/10	3.48	15/09	53.0	10.09	3.91
021005	**Tweed at Lyne Ford** C.A: 373.0 km²	**61-85**	**1297**		**732**		**8.66**	**266.2**	**15/01 1962**	**1.15**	**27/08 1984**	**18.2**	**5.68**	**1.99**
M.A: TWRPB	Level: 167m Local Number: 373													
F.A.R: SP	B.F.I: .56 Sensitivity: 9.0	1986	1643	127	979	134	11.57	117.1	09/11	1.67	17/10	25.4	8.09	2.24
Comment: Natural section on straight gravel bedded reach. Cableway. Left bank overtopped during large floods. Slight seasonal weed growth effect on rating. Runoff diminished by abstractions from Fruid and Talla Reservoirs - compensation releases also influence flow regime. Monthly naturalised flows available. # Upland catchment developed mainly on Silurian shale - with alluvial gravel in valley bottoms. Land use is principally hill grazing.		1987	1263	97	762	104	9.02	200.1	18/10	2.45	28/05	16.7	6.52	3.03
		1988	1324	102	812	111	9.58	124.7	01/02	1.89	28/06	18.7	6.99	2.39
		1989	1206	93	683	93	8.08	97.4	11/01	1.37	24/07	18.3	4.63	1.64
		1990	1634	126	1109	152	13.12	150.3	04/02	2.20	05/08	33.9	5.74	2.40
021006	**Tweed at Boleside** C.A: 1500.0 km²	**61-85**	**1205**		**735**		**34.95**	**1019.0**	**31/10 1977**	**3.46**	**27/08 1976**	**75.3**	**23.03**	**6.49**
M.A: TWRPB	Level: 95m Local Number: 1500													
F.A.R: SP	B.F.I: .51 Sensitivity: 6.7	1986	1504	125	925	126	44.02	309.2	05/12	6.88	26/07	95.2	31.98	8.46
Comment: Velocity-area station with cableway on straight section with stable gravel bed. Seasonal weed growth effects rating. Reservoir storage modifies natural flow regime but overall impact is minor; monthly naturalised flows available. # Gauging site is central in Tweed basin and marks divide between hilly uplands and lowland areas. Geology - mainly impervious Silurian formations with significant Drift cover. Hill grazing with some forestry and a little arable land.		1987	1204	100	743	101	35.33	403.9	18/10	9.56	28/05	63.7	26.11	11.87
		1988	1251	104	796	108	37.74	391.6	01/02	6.85	28/06	74.7	27.66	8.78
		1989	1076	89	627	85	29.82	311.8	11/01	4.40	25/07	67.7	17.79	5.72
		1990	1422	118	986	134	46.89	507.6	04/02	7.44	16/09	119.2	21.81	8.63
021007	**Ettrick Water at Lindean** C.A: 499.0 km²	**61-85**	**1366**		**925**		**14.64**	**560.0**	**31/10 1977**	**0.57**	**07/09 1976**	**33.4**	**8.68**	**1.76**
M.A: TWRPB	Level: 99m Local Number: 499													
F.A.R: N	B.F.I: .40 Sensitivity: 11.5	1986	1746	128	1159	125	18.35	184.7	05/12	2.01	25/07	43.5	11.62	2.60
Comment: Natural section with cableway about 1km before confluence with Tweed. Low flow control by downstream gravel riffle that is slowly accreting. St Mary's Loch and Megget Reservoir have a minor impact on the flow regime. # Relatively narrow impervious (mostly Silurian formations) catchment - typical of the Southern Uplands; land use is mostly hill grazing.		1987	1368	100	836	90	13.22	226.2	18/10	2.51	28/05	25.9	8.67	3.22
		1988	1445	106	989	107	15.60	226.9	01/02	2.06	25/06	33.2	10.31	2.61
		1989	1258	92	828	90	13.10	195.9	09/03	1.50	18/07	31.5	7.45	1.83
		1990	1577	115	1132	122	17.91	357.9	04/02	2.02	04/08	46.6	6.83	2.34
021008	**Teviot at Ormiston Mill** C.A: 1110.0 km²	**60-85**	*966*		**545**		**19.17**	**578.6**	**03/01 1982**	**1.41**	**31/08 1984**	**41.9**	**11.66**	**2.85**
M.A: TWRPB	Level: 43m Local Number: 1110													
F.A.R: N	B.F.I: .45 Sensitivity: 8.4	1986	1155	120	729	134	25.64	269.9	26/08	3.31	27/07	57.1	17.37	3.86
Comment: Natural channel control. Rock and gravel section at gauge with downstream gravel riffle giving low flow control. Rating subject to appreciable weed growth. Catchment contains two small storages but runoff is sensibly natural. # Mainly Silurian shale and Old Red Sandstone. Land use is chiefly moorland and hill grazing with some arable farming towards the confluence with the Tweed.		1987	1049	109	630	116	22.16	306.3	18/10	4.39	27/05	46.0	13.88	5.39
		1988	1018	105	593	109	20.83	376.1	01/02	3.56	24/06	42.9	13.51	4.32
		1989	806	83	436	80	15.33	268.2	09/03	1.71	28/07	35.6	8.48	2.32
		1990	1094	113	623	114	21.93	374.8	28/12	2.19	04/08	62.5	8.11	2.47
021009	**Tweed at Norham** C.A: 4390.0 km²	**62-85**	**986**		**551**		**76.71**	**1518.0**	**04/01 1982**	**7.43**	**28/08 1976**	**163.3**	**51.36**	**14.02**
M.A: TWRPB	Level: 4m Local Number: 4390													
F.A.R: SP	B.F.I: .52 Sensitivity: 3.9	1986	1151	117	669	121	93.18	694.3	05/03	13.69	27/07	191.3	69.74	17.66
Comment: Lowest station on River Tweed. Velocity-area station at very wide natural section. Complex control. Moderate seasonal weed growth effects on rating. Reservoirs in headwaters have only a small impact on the flow regime monthly naturalised flows available. # Geology: mixed but principally impervious Palaeozoic formations. Moorland and hill pasture predominates; improved grasslands and arable farming below Melrose.		1987	1032	105	607	110	84.45	781.3	18/10	19.62	11/08	174.9	58.09	25.17
		1988	1015	103	588	107	81.65	835.6	01/02	14.42	25/06	162.3	57.97	17.70
		1989	790	80	393	71	54.77	572.3	10/03	9.49	27/07	124.5	32.44	11.47
		1990	1089	110	615	112	85.62	835.8	28/12	13.61	12/08	237.8	40.70	14.93
021011	**Yarrow Water at Philiphaugh** C.A: 231.0 km²	**63-85**	**1394**		**909**		**6.65**	**272.5**	**31/10 1977**	**0.39**	**05/09 1976**	**15.1**	**4.15**	**0.95**
M.A: TWRPB	Level: 128m Local Number: 231													
F.A.R: SN	B.F.I: .47 Sensitivity: 11.2	1986	1726	124	1180	130	8.65	58.1	04/12	1.32	21/07	20.3	6.00	1.67
Comment: Natural coarse gravel bedded straight section. Control unstable. Sensibly natural regime but Megget Reservoir began impounding in 1982 and flood peaks are also attenuated by St Mary's Loch. # Upland catchment developed mainly on Silurian shale (with alluvial gravel in the valleys). Hill grazing is the principal land use.		1987	1355	97	815	90	5.97	57.7	18/10	1.51	25/05	11.2	3.97	1.84
		1988	1425	102	939	103	6.86	65.0	01/02	1.49	27/06	15.0	4.97	1.71
		1989	1246	89	810	89	5.93	47.8	13/01	1.18	24/07	13.3	3.10	1.32
		1990	1600	115	1042	115	7.63	100.4	04/02	1.34	04/08	20.2	3.28	1.42

		Period	Rainfall (mm)	% of pre-1986	Runoff (mm)	% of pre-1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
021012	**Teviot at Hawick** C.A: 323.0 km^2	**63-85**	**1159**		**800**		**8.19**	**273.4**	**31/10 1977**	**0.51**	**15/07 1978**	**18.7**	**4.85**	**0.98**
M.A: TWRPB	Level: 90m Local Number: 323													
F.A.R: N	B.F.I: .44 Sensitivity: 11.1	1986	1449	124	1066	133	10.92	147.7	04/12	1.07	17/10	24.7	6.72	1.35
Comment: Natural section. Low flow control by gravel shoal below gauge. Frequent rerating required due to weed growth. # Natural upland catchment. Geology comprises of (mostly) Silurian shale. Hill grazing is the dominant land use but forestry is important in the headwaters. Hawick is the only significant settlement.		1987	1212	104	836	105	8.56	166.6	18/10	1.30	28/05	18.1	5.51	1.73
		1988	1266	108	912	114	9.31	235.3	01/02	1.10	30/06	19.4	6.35	1.54
		1989	1094	94	750	94	7.68	182.4	09/03	**0.44**	**24/07**	18.1	4.40	0.56
		1990	1425	122	1021	128	10.45	230.0	28/12	0.92	15/09	29.8	3.64	1.07
021013	**Gala Water at Galashiels** C.A: 207.0 km^2	**64-85**	**935**		**544**		**3.57**	**78.8d**	**03/11 1984**	**0.31**	**07/09 1976**	**7.8**	**2.30**	**0.52**
M.A: TWRPB	Level: 120m Local Number: 207													
F.A.R: N	B.F.I: .52 Sensitivity: 19.0	1986	1126	120	650	119	4.27	57.8	04/03	0.71	17/10	8.5	3.15	0.86
Comment: Concrete-lined reach in industrial part of Galashiels. Gravel bed with control formed by concrete haunching over sewage pipe. # Natural upland catchment draining from the Moorfoot Hills. The catchment is mainly impervious (Silurian) and given over to hill grazing with some arable land.		1987	1013	108	588	108	3.86	52.4	04/01	0.90	27/05	7.8	2.68	1.16
		1988	997	107	552	101	3.61	41.3	06/01	0.60	23/06	7.0	2.48	0.76
		1989	742	79	322	59	2.11	26.8	23/03	0.36	04/08	4.7	1.01	0.42
		1990	1083	116	649	119	4.26	**128.0**	**06/10**	0.46	15/09	10.9	2.05	0.55
021014	**Tweed at Kingledores** C.A: 139.0 km^2	**61-85**	**1583**		**861**		**3.80**	**252.6**	**30/09 1962**	**0.46**	**06/10 1972**	**8.3**	**2.05**	**0.88**
M.A: TWRPB	Level: 214m Local Number: 139													
F.A.R: SP	B.F.I: .45 Sensitivity: 8.3	1986	2114	134	1232	143	5.43	106.6	09/11	0.75	16/10	12.7	3.14	0.95
Comment: Natural section on upper Tweed. Coarse gravel bed. Variable backwater effects from Kingledores Burn 10m below station. Exports from Fruid and Talla Reservoirs cause a significant reduction in runoff - monthly naturalised flows available. # Impervious (mostly Silurian formations) upland catchment given over, mainly to hill grazing and forestry.		1987	1596	101	934	108	4.12	226.5	18/10	1.13	28/05	7.3	2.51	1.38
		1988	1677	106	990	115	4.35	92.7	25/10	0.86	27/06	8.9	2.71	1.08
		1989	1565	99	917	107	4.04	86.9	13/01	0.75	24/07	9.5	2.28	0.82
		1990	2020	128	1375	160	6.06	117.9	29/01	0.98	28/05	15.2	2.18	1.12
021015	**Leader Water at Earlston** C.A: 239.0 km^2	**66-85**	**828**		**459**		**3.48**	**125.7d**	**03/11 1984**	**0.27**	**26/08 1976**	**7.5**	**1.93**	**0.46**
M.A: TWRPB	Level: 103m Local Number: 239													
F.A.R: N	B.F.I: .49 Sensitivity: 27.5	1986	982	119	506	110	3.83	59.1	04/03	0.64	26/07	7.8	2.75	0.83
Comment: Velocity-area section. Gravel bed with bar giving low flow control. Fairly insensitive at low flows. Natural flow regime. # Upland catchment draining from the Lammermuir Hills. Geology: Silurian shale and Old Red Sandstone. Hill grazing with arable farming at lower levels.		1987	923	111	519	113	3.94	60.3	26/08	0.99	27/05	7.5	2.83	1.16
		1988	853	103	419	91	3.17	72.6	06/01	0.59	30/06	6.7	2.11	0.72
		1989	606	73	203	44	1.54	21.5	01/03	0.38	04/08	3.2	0.89	0.43
		1990	944	114	449	98	3.40	116.5	06/10	0.38	10/09	8.8	1.66	0.42
021016	**Eye Water at Eyemouth Mill** C.A: 119.0 km^2	**67-85**	**719**		**346**		**1.31**	**88.6**	**02/10 1981**	**0.08**	**26/08 1976**	**2.9**	**0.59**	**0.13**
M.A: TWRPB	Level: 3m Local Number: 119													
F.A.R: N	B.F.I: .45 Sensitivity: 23.8	1986	684	95	304	88	1.15	15.7	15/04	0.20	27/07	2.5	0.66	0.24
Comment: Former mill weir converted to serve as informal control. Steep high banks on both sides. 600m upstream from Eyemouth harbour; high spring tides can reach site. # Geology: Silurian shale and Old Red Sandstone with tracts of Drift. Agricutture is the primary land use; hill grazing in the headwaters, arable below.		1987	813	113	467	135	1.76	42.9	26/08	0.32	09/07	3.9	0.99	0.39
		1988	729	101	345	100	1.30	56.6	06/01	0.24	24/06	2.6	0.73	0.28
		1989	445	62	95	27	0.36	10.3	25/02	0.08	27/07	0.6	0.24	0.11
		1990	630	88	226	65	0.85	35.8	28/10	**0.06**	**15/09**	1.8	0.31	0.09
021017	**Ettrick Water at Brockhoperig** C.A: 37.5 km^2	**65-85**	**1849**		**1485**		**1.77**	**145.2**	**30/10 1977**	**0.07**	**26/08 1984**	**4.0**	**0.98**	**0.18**
M.A: TWRPB	Level: 259m Local Number: 38													
F.A.R: N	B.F.I: .34 Sensitivity: 18.1	1986	2509	136	2040	137	2.43	65.7	09/01	0.19	26/07	6.3	1.37	0.24
Comment: Velocity-area station on straight reach with rocky bed. Control by series of rocky bars and falls. Turbulent flow at higher stages. Heavy gravel load in floods. # Natural steep upland catchment containing much moorland and some forestry. Very responsive (geology: principally impervious Silurian formations).		1987	1885	102	1431	96	1.70	70.1	18/10	0.20	17/01	3.6	0.92	0.32
		1988	2022	109	1747	118	2.07	49.8	30/08	0.16	24/06	4.7	1.31	0.23
		1989	1837	99	1477	99	1.76	52.3	11/01	0.10	22/07	4.4	0.88	0.14
		1990	2048	111	2028	137	2.41	85.6	26/12	0.21	07/08	5.6	1.04	0.30
021018	**Lyne Water at Lyne Station** C.A: 175.0 km^2	**68-85**	**918**		**509**		**2.83**	**58.7**	**21/09 1985**	**0.49**	**23/08 1976**	**6.0**	**1.86**	**0.67**
M.A: TWRPB	Level: 168m Local Number: 175													
F.A.R: SP	B.F.I: .59 Sensitivity: 7.7	1986	1155	126	632	124	3.51	24.5	30/12	0.85	26/07	7.3	2.46	0.92
Comment: Velocity-area station. Flow fully concentrated by arches of bridge below station. Storage in - and abstraction from - Baddingsgill and Watch Water Reservoirs influence the flow regime; overall impact on annual runoff is limited - monthly naturalised flows available. # Mainly Silurian shale with Old Red Sandstone and considerable surface deposits of sand and gravel in centre of catchment. Mostly hill grazing and grassland.		1987	986	107	564	111	3.13	25.0	18/10	0.87	28/05	5.4	2.49	1.11
		1988	978	107	581	114	3.21	30.7	02/01	0.84	28/06	5.6	2.38	1.03
		1989	807	88	382	75	2.12	22.6	11/01	0.58	24/07	4.5	1.19	0.66
		1990	1213	132	735	144	4.08	**73.8**	**06/10**	0.72	15/09	9.6	2.30	0.77
021019	**Manor Water at Cademuir** C.A: 61.6 km^2	**68-85**	**1389**		**784**		**1.53**	**40.2**	**30/10 1977**	**0.16**	**27/08 1984**	**3.3**	**1.05**	**0.30**
M.A: TWRPB	Level: 197m Local Number: 62													
F.A.R: P	B.F.I: .60 Sensitivity: 14.5	1986	1868	134	1014	129	1.98	16.6	04/03	0.32	17/10	4.0	1.62	0.43
Comment: Velocity-area station with artificial control - flat concrete bar with stone pitched banks. Site situated at end of straight reach with bend just below bar. Runoff is slightly diminished by an upstream abstraction (Langhaugh Intake); monthly naturalised flows available. # Steep catchment developed on Silurian shale. Land use is mostly hill grazing.		1987	1412	102	753	96	1.47	27.7	18/10	0.45	27/05	2.6	1.10	0.56
		1988	1482	107	840	107	1.64	15.9	25/10	0.33	29/06	3.2	1.23	0.38
		1989	1355	98	651	83	1.27	17.1	11/01	0.20	08/08	2.8	0.76	0.23
		1990	1601	115	1071	137	2.09	27.9	22/01	0.33	15/09	5.7	0.96	0.37
021020	**Yarrow Water at Gordon Arms** C.A: 155.0 km^2	**67-85**	**1512**		**1030**		**5.06**	**166.0**	**30/10 1977**	**0.15**	**28/08 1976**	**11.3**	**3.13**	**0.67**
M.A: TWRPB	Level: 226m Local Number: 155													
F.A.R: SP	B.F.I: .46 Sensitivity: 9.0	1986	1966	130	1401	136	6.88	41.4	04/12	1.14	21/07	16.6	4.92	1.41
Comment: Velocity-area station downstream of road bridge on section with rough gravel bed. Sensibly natural runoff until impounding for Meggets Reservoir began in 1982 but St Mary's Loch (few km upstream) attenuates floods significantly. # An impervious (Silurian formations) catchment given over to hill grazing with a little forestry.		1987	1501	99	902	88	4.44	41.8	18/10	1.31	25/05	8.8	3.07	1.43
		1988	1593	105	1072	104	5.26	33.0	01/02	1.18	21/06	11.3	3.90	1.36
		1989	1434	95	975	95	4.79	37.4	09/03	0.89	15/12	10.9	2.56	1.00
		1990	1809	120	1158	112	5.69	67.7	04/02	1.14	28/05	15.5	2.47	1.22
021021	**Tweed at Sprouston** C.A: 3330.0 km^2	**69-85**	**1006**		**571**		**60.34**	**1409.0**	**04/01 1982**	**6.55**	**07/09 1976**	**137.5**	**38.26**	**9.90**
M.A: TWRPB	Level: 25m Local Number: 3330													
F.A.R: SP	B.F.I: .51 Sensitivity: 6.6	1986	1265	126	772	135	81.55	611.6	04/03	10.73	26/07	174.8	60.54	13.87
Comment: Wide section on gentle bend in river. Natural channel controls. Cableway. Significant seasonal weed growth effects on rating. Reservoirs in the headwaters have a very minor impact on the flow regime; monthly naturalised flows available. # The geology is dominated by impervious Silurian formations (with some Drift). Hill grazing predominates with improved grassland and arable farming in the lower catchment.		1987	1085	108	652	114	68.86	743.3	18/10	15.63	26/05	144.7	49.54	20.13
		1988	1087	108	644	113	67.77	835.4	01/02	10.44	25/06	141.9	47.43	16.13
		1989	883	88	467	82	49.29	565.9	09/03	7.88	25/07	111.9	29.19	9.57
		1990	1199	119	723	127	76.35	825.5	28/12	8.93	04/08	199.6	35.56	11.79
021022	**Whiteadder Water at Hutton Castle** C.A: 503.0 km^2	**69-85**	**792**		**399**		**6.37**	**279.8**	**03/11 1984**	**0.67**	**17/01 1973**	**13.4**	**3.54**	**1.11**
M.A: TWRPB	Level: 29m Local Number: 503													
F.A.R: SP	B.F.I: .53 Sensitivity: 7.2	1986	854	108	443	111	7.06	130.0	04/03	1.45	27/07	14.3	4.32	1.78
Comment: Compound Crump profile weir with theoretical rating. Catchment contains Whiteadder and Watchwater Reservoirs which can have substantial effects. Monthly naturalised flows available. # Mixed geology, mostly impervious Palaeozoic formations with significant Drift cover. Hill grazing at high levels with arable farming below about 150m.		1987	922	116	528	132	8.42	181.1	26/08	2.23	08/08	17.3	5.79	2.50
		1988	821	104	409	103	6.51	233.6	06/01	1.50	24/06	13.5	4.09	1.87
		1989	542	68	168	42	2.67	43.0	25/02	0.92	27/07	5.1	1.83	1.00
		1990	814	103	325	81	5.18	226.2	06/10	0.87	04/09	11.5	2.53	0.92
021023	**Leet Water at Coldstream** C.A: 113.0 km^2	**70-85**	**647**		**239**		**0.86**	**38.9**	**28/12 1978**	**0.00**	**27/08 1976**	**2.1**	**0.29**	**0.02**
M.A: TWRPB	Level: 12m Local Number: 113													
F.A.R: N	B.F.I: .35 Sensitivity: 11.9	1986	722	112	274	115	0.98	21.4	15/04	0.04	27/07	2.3	0.40	0.07
Comment: Velocity-area station with artificial control containing trapezoidal flume for low flow measurement. Backwater effects from bridge below station and River Tweed. Natural flow regime. # A relatively flat (for TWRPB) catchment developed on Boulder Clay overlying calciferous sandstone. Mainly arable farming.		1987	772	119	351	147	1.26	24.6	11/04	0.10	09/07	3.3	0.56	0.15
		1988	728	113	292	122	1.04	24.8	06/01	0.07	24/06	2.4	0.51	0.13
		1989	425	66	58	24	0.21	10.0	25/02	0.01	27/07	0.5	0.08	0.02
		1990	640	99	160	67	0.57	24.5	08/12	0.01	14/09	1.6	0.13	0.01

		Period	Rainfall (mm)	% of pre-1986	Runoff (mm)	% of pre-1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
021024	**Jed Water at Jedburgh** C.A: 139.0 km²	**71-85**	**904**		**504**		**2.22**	**84.9**	**25/03 1979**	**0.26**	**06/09 1976**	**5.1**	**1.18**	**0.38**
M.A: TWRPB	Level: 68m Local Number:													
F.A.R: N	B.F.I: .42 Sensitivity: 10.2	1986	1092	121	683	136	3.01	63.8	26/08	0.52	21/07	6.8	1.71	0.66
Comment: Velocity-area station on straight reach. A rock ledge is the control for very low flows; under higher flow conditions control passes to downstream channel bar. Flows are largely natural and uncontrolled. # An upland, mainly sandstone (ORS), catchment. Land use: Hill grazing with some forestry.		1987	1050	116	667	132	2.94	69.3	18/10	0.61	09/07	6.5	1.64	0.74
		1988	948	105	546	108	2.40	72.9	06/01	0.50	24/06	5.0	1.32	0.61
		1989	722	80	358	71	1.58	53.7	09/03	0.37	04/08	3.6	0.83	0.41
		1990	984	109	524	104	2.31	74.8	04/02	0.31	17/09	6.2	0.74	0.35
021025	**Ale Water at Ancrum** C.A: 174.0 km²	**72-85**	**914**		**456**		**2.52**	**66.4**	**31/10 1977**	**0.11**	**07/09 1976**	**6.2**	**1.36**	**0.23**
M.A: TWRPB	Level: 61m Local Number: 174													
F.A.R: SP	B.F.I: .43 Sensitivity: 16.6	1986	1145	125	603	132	3.33	32.4	05/03	0.33	16/10	7.8	1.97	0.39
Comment: Velocity-area station at natural river section. Low flow control by solid rock bar very close to gauge. Runoff is marginally diminished by a small reservoir in the headwaters. # An upland catchment - mostly Silurian shale. Hill pasture predominates.		1987	1000	109	512	112	2.82	37.0	27/12	0.40	27/05	6.2	1.72	0.53
		1988	1018	111	512	112	2.82	51.6	01/02	0.32	30/06	5.9	1.66	0.41
		1989	816	89	345	76	1.90	36.2	09/03	0.15	08/08	4.6	0.70	0.19
		1990	1083	118	538	118	2.97	48.7	28/12	0.14	23/09	9.2	0.86	0.20
021026	**Tima Water at Deephope** C.A: 31.0 km²	**73-85**	**1677**		**1312**		**1.29**	**100.0**	**30/10 1977**	**0.03**	**26/07 1984**	**3.3**	**0.63**	**0.07**
M.A: TWRPB	Level: 232m Local Number: 31													
F.A.R: N	B.F.I: .26 Sensitivity: 29.5	1986	2324	139	1727	132	1.70	47.4	04/12	0.07	25/09	4.7	0.85	0.08
Comment: Velocity-area station at natural river section. Control is gravel bed, unstable. Natural flow regime. # High rainfall, steep, upland catchment developed on Silurian shale. Now mainly forested.		1987	1737	104	1226	93	1.21	43.8	27/12	0.08	27/05	2.6	0.55	0.14
		1988	1914	114	1480	113	1.45	45.1	01/02	0.06	14/06	3.8	0.74	0.09
		1989	1705	102	1248	95	1.23	50.2	20/08	0.03	17/07	3.2	0.45	0.05
		1990	1950	116	1786	136	1.76	71.7	26/12	0.10	28/07	4.4	0.53	0.15
021027	**Blackadder Water at Mouth Bridge** C.A: 159.0 km²	**73-85**	**765**		**355**		**1.79**	**65.7**	**24/02 1978**	**0.14**	**07/09 1976**	**3.7**	**1.04**	**0.29**
M.A: TWRPB	Level: 57m Local Number: 159													
F.A.R: N	B.F.I: .50 Sensitivity: 15.5	1986	807	105	364	103	1.83	38.3	04/03	0.38	26/07	3.3	1.21	0.44
Comment: Velocity-area station. Natural river section with rock control. # Natural catchment. Grazing on hills, arable on lower land. Mostly Old Red Sandstone and calciferous sandstone overlain by Boulder Clay.		1987	859	112	454	128	2.29	43.6	11/04	0.59	09/07	4.5	1.39	0.63
		1988	794	104	368	104	1.85	62.9	06/01	0.43	24/06	3.6	1.12	0.52
		1989	508	66	134	38	0.67	24.4	25/02	0.20	26/07	1.3	0.41	0.23
		1990	754	99	262	74	1.32	56.8	06/10	0.18	11/09	2.8	0.59	0.19
021030	**Megget Water at Henderland** C.A: 56.2 km²	**68-85**	**1665**		**1123**		**2.00**	**104.4**	**11/12 1972**	**0.11**	**09/07 1977**	**4.6**	**1.13**	**0.27**
M.A: TWRPB	Level: 254m Local Number: 56													
F.A.R: S	B.F.I: .43 Sensitivity: 14.3	1986	2130	128	1527	136	2.72	23.2	07/12	0.14	22/02	6.2	1.70	0.46
Comment: Velocity-area station with rock and gravel bar acting as control. Downstream of Megget Reservoir - station was installed to provide data for reservoir design - flows are now highly artificial (since impoundment began in 1982). # A steep upland catchment developed on impervious Silurian formations. Land use is mostly hill grazing.		1987	1607	97	877	78	1.56	23.3	18/10	0.39	14/12	3.5	0.88	0.48
		1988	1710	103	1027	91	1.82	17.9	19/01	0.40	09/03	4.0	1.29	0.57
		1989	1583	95	1049	93	1.87	23.1	13/01	0.43	02/01	4.5	1.11	0.50
		1990	1937	116	858	76	1.53	32.7	25/02	0.27	05/12	3.3	0.83	0.41
021034	**Yarrow Water at Craig Douglas** C.A: 116.0 km²	**68..85**	**1567**		**1014**		**3.73**	**113.3**	**31/10 1977**	**0.13**	**28/08 1976**	**8.7**	**2.30**	**0.52**
M.A: TWRPB	Level: 239m Local Number: 116													
F.A.R: N	B.F.I: .48 Sensitivity:	1986												
Comment: Large trapezoidal flume.		1987	1552	99	927	91	3.41	30.0	18/10	1.06	15/12	7.2	2.42	1.22
		1988			1080	107	3.96	18.1	02/02	1.14	02/07	8.2	2.97	1.25
		1989			1011	100	3.72	25.3	09/03	0.87	01/12	8.1	2.20	0.96
		1990	1893	121	1101	109	4.05	51.3	04/02	1.08	03/08	10.3	2.06	1.17

Summary of Archived Data – 1

Gauged daily flows, monthly peaks and monthly rainfall

Stn. number	Gauged daily flows, monthly peaks and rainfall			
017001	60s	--------E	70s	AAAAAAAAAB
	80s	AAAAAAAAAA	90s	AAf
017002	60s	--------E	70s	AAAAAAAAAA
	80s	AAAAAAAAAA	90s	AAf
017003	70s	†EAAAAAAAA	80s	AAAAAAAAAA
	90s	ACf		
017004	70s	-EAAAAAAA	80s	AAAAAAAAAA
	90s	AAf		
017005	70s	·EAAAAAAAB	80s	AAAAAAEAAA
	90s	AAf		
017008	80s	--------aa	90s	AAf
017012	80s	---††EAAA	90s	AAf
017015	80s	----†ADA	90s	AAf
017016	80s	----aaaa	90s	adf
017017	80s	----ac--	90s	††
018001	50s	-------EAA	60s	AAAAAAAAAA
	70s	AAAAAAAAAA	80s	AAAAAAAAAA
	90s	AAf		
018002	50s	--------b	60s	ABAAAAAAAA
	70s	BbbAAAAAAA	80s	AAAAAAAAAA
	90s	AAf		
018003	50s	------ccc	60s	cccbAAAAAA
	70s	AAEAAAAAAA	80s	AAAAAAAAAA
	90s	AAf		
018005	70s	†EAAAAAAAA	80s	AAAAAAAAAA
	90s	AAf		
018007	80s	---††aaaa	90s	AE
018008	70s	---eAAAAAA	80s	AAAAAAAAAA
	90s	AAf		
018010	80s	----††AAAA	90s	AAf
018011	80s	·fcAAAAAAA	90s	AAf
018013	80s	----††acca	90s	aaf
018014	80s	----††AAAA	90s	AAf
018015	80s	----††aada	90s	aaf
018016	80s	------AAAA	90s	AAf
018017	80s	--eaaaAAAA	90s	E†
018018	80s	---aaaAADE	90s	E†
018019	80s	------†AC†	90s	††
019001	50s	-------AAA	60s	AAAAAAAAAA
	70s	AAAAAAAAAA	80s	AAAAAAAAAA
	90s	AAf		
019002	60s	·†AAAAAAAA	70s	AAACAAAAAA
	80s	AAAAAAAAAA	90s	AAf
019003	60s	·eAAAAAAAA	70s	AAAAAAAAAA
	80s	D††---††††	90s	††
019004	60s	AAAAAAAAAA	70s	AAACAAAAAA
	80s	AAAAAAAAAA	90s	AAf

Stn. number	Gauged daily flows, monthly peaks and rainfall			
019005	60s	-eAAAAAAA	70s	AAAAAAAAAA
	80s	AAAAAAAAAA	90s	DAf
019006	60s	·††AAAAAAA	70s	AAAAAAAAAA
	80s	AAAAAAAAAA	90s	AAf
019007	60s	·†BAAAAAAA	70s	AAAAAAAAAA
	80s	AAAAAAAAAA	90s	AAf
019008	60s	·†††BAAAAA	70s	AAAAAAAAAA
	80s	AAAAAAAAAA	90s	††
019009	60s	---AAAAAAA	70s	AAAAAAAAAA
	80s	AAAAAA·bfa	90s	adf
019010	60s	--------A	70s	AAAAAAAAAA
	80s	AAAAAEEEEA	90s	AAf
019011	60s	---ccccccc	70s	ccccccaaaa
	80s	AAAAAAAAAA	90s	AAf
019012	80s	---††eaaa	90s	aaf
019017	80s	---††AAAA	90s	AAf
020001	60s	·AAAAAAAAA	70s	AAAAAAAAAA
	80s	AAAAAAAAAA	90s	AAf
020002	60s	·†††††EAAA	70s	AAAAAAAAAA
	80s	AAAAAAAAAA	90s	AAf
020003	60s	·††††AAAAA	70s	AAAAAAAAAA
	80s	AAAAAAEAAA	90s	AAf
020004	60s	·††††††AAA	70s	AAAAAAAAAA
	80s	AAAAAEaaaa	90s	aaf
020005	60s	·††††CCCCC	70s	CCCCCCAAaa
	80s	AAAAAAEAAA	90s	AAf
020006	70s	---cccAAAD	80s	AAAAAAAADA
	90s	AAf		
020007	60s	--------††	70s	†††CCCAAAA
	80s	AAAAAAAAAA	90s	AAf
020008	80s	----††AB††	90s	†C
021001	50s	--------e	60s	AAAAEEAAE†
	70s	††††††††††	80s	-----††††
	90s	††		
021002	50s	------††·e	60s	aBCBAAAAE†
	70s	††††††††··	80s	-----††††
	90s	††		
021003	50s	--------e	60s	AAAAAAABAA
	70s	AAAAAAAAAA	80s	ABBCCAAAAA
	90s	AAe		
021004	60s	-----eAAe·	70s	------†††
021005	60s	·EAAAAAAAB	70s	AAAAAAAAAA
	80s	AABCCAAAAA	90s	AAe
021006	60s	·EAAAAAAAA	70s	AAAAAAAAAA
	80s	AAAAAAAAAA	90s	AAe
021007	60s	·EAAAAAAAA	70s	AAAAAAAAAA
	80s	AABCCAAAAA	90s	AAe

Stn. number	Gauged daily flows, monthly peaks and rainfall			
021008	60s	eAAAAAAAAA	70s	AAAAAAAAAA
	80s	AABCCAAAAA	90s	AAe
021009	60s	·†EAAAAAAA	70s	AAAAAAAAAA
	80s	AAAAAAAAAA	90s	AAe
021010	60s	fF†EAAAAAA	70s	AAAAAABAAA
	80s	A††††††††††	90s	††
021011	60s	·††EAAAAAA	70s	AAAAAAAAAA
	80s	AABCCAAAAA	90s	AAe
021012	60s	·††EAAAAAA	70s	AAAAAAAAAA
	80s	AAAAAAAAAA	90s	AAe
021013	60s	·†††EAAAAA	70s	AAAAAAAAAA
	80s	AACCCAAAAA	90s	AAe
021014	60s	·EAAAAAAAA	70s	AAAAAAAAAA
	80s	AABCCAAAAA	90s	AAe
021015	60s	·†††††EAAA	70s	AAAAAAAAAA
	80s	AACCCAAAAA	90s	AAe
021016	60s	·††††††EAA	70s	AAAAAAAAAA
	80s	AACCCAAAAA	90s	AAe
021017	60s	·††††EAAAA	70s	AAAAAAAAAA
	80s	AABCCAAAAA	90s	AAe
021018	60s	·†††††††EA	70s	AAAAAAAAAA
	80s	AAAAAAAAAA	90s	AAe
021019	60s	·†††††††EA	70s	AAAAAAAAAA
	80s	AABCCAAAAA	90s	AAe
021020	60s	·††††††EBA	70s	AAAAAAAAAA
	80s	AABCCAAAAA	90s	AAe
021021	60s	--------E	70s	AAAAAAAAAA
	80s	AABCCAAAAA	90s	AAe
021022	60s	·†††††††††E	70s	AAAAAAAAAA
	80s	AAAAAAAAAA	90s	AAe
021023	60s	·††††††††††	70s	EAAAAAAAAA
	80s	AABCCAAAAA	90s	AAe
021024	60s	·††††††††††	70s	†EAAAAAAAA
	80s	AACCCAAAAA	90s	AAe
021025	60s	·††††††††††	70s	††EAAAAAAA
	80s	AACCCAAAAA	90s	AAe
021026	60s	·††††††††††	70s	†††EAAAAAA
	80s	AACCCAAAAA	90s	AAe
021027	60s	·††††††††††	70s	†††EAAAAAA
	80s	AACCCAAAAA	90s	AAe
021028	40s	--------fc	50s	cfc-----
	60s	--------	70s	-------
	80s	--------†	90s	††
021030	60s	·†††††††EA	70s	BAAAAAAAAA
	80s	AABCCAAAAA	90s	AAe
021034	60s	·†††††††FF	70s	CCCCCAAAAA
	80s	AAACCAdAaa	90s	AAe

Summary of Archived Data – 2

Naturalised daily and monthly flows

Stn. number	Naturalised daily, and monthly flows			
017001	60s	--------F	70s	EF----E
017002	60s	--------F	70s	EF----E
017003	70s	------E		
017004	70s	------E		
017005	70s	------E		
018001	70s	------E		
018002	60s	----FEEEE	70s	F----E
018003	60s	---FEEEEE	70s	EF----E
018005	70s	------E		
018008	70s	------E		
019001	50s	-------EEE	60s	EEEEEEEEEE
	70s	EEEEEEE		
019002	60s	--EEEEEEEE	70s	EEE-EEE
019003	60s	·FEEEEEEEE	70s	EEEEEEE
019004	60s	EEEEEEEEEE	70s	EEE-EEE
019005	60s	--FEEEEEEE	70s	EFEEEEE
019006	60s	---EEEEEEE	70s	EEEEEEE
019007	60s	--FEEEEEEE	70s	EEEEEEE
019008	60s	----FEEEEE	70s	EEEEEEE
019009	60s	---EEEEEEE	70s	EEFFEEE

Stn. number	Naturalised daily, and monthly flows			
019010	60s	--------E	70s	EEEEEEE
019011	70s	------E		
020001	60s	·EEEEEEEEE	70s	EEEEEEE
020002	60s	--------EE	70s	EEEEEEE
020003	60s	----EEEEE	70s	EEEEEEE
020004	60s	--------EEE	70s	EEEEEEE
020005	70s	------E		
020006	70s	------E		
020007	70s	------E		
021001	50s	--------F	60s	EEEEFFEEF
021002	50s	--------F	60s	EEEEEEEEF
021003	50s	--------F	60s	EEEEEEEEEE
	70s	EEEEEEEEEE	80s	EF----EEEE
	90s	-E		
021004	60s	----FEEF		
021005	60s	·FEEEEEEEE	70s	EEEFEEEEEE
	80s	EF----EEEE	90s	-E
021006	60s	·FEEEEEEEE	70s	EEEEEEEEEE
	80s	F----EEEE	90s	EE
021007	80s	------EEEE	90s	EE

Stn. number	Naturalised daily, and monthly flows			
021009	60s	-FEEEEEEE	70s	EEEFEEEEEE
	80s	F----EEEE	90s	EE
021010	60s	--FEEEEEE	70s	EF-FF-EE--
	80s	E		
021011	80s	-----EEEE	90s	EE
021014	60s	·FEEEEEEEE	70s	EEEEEEEEEE
	80s	F----EEEE	90s	EE
021018	60s	--------FE	70s	EEEFEEEFFE
	80s	F----EEEE	90s	EE
021019	60s	--------FE	70s	EEEEEEEEEE
	80s	F----EEEE	90s	EE
021020	80s	-----EEEE	90s	EE
021021	60s	--------F	70s	EEEEEEEFEE
	80s	F----EEEE	90s	EE
021022	60s	--------F	70s	EEEEEEEEEE
	80s	F----EEEE	90s	EE
021025	70s	-FEEEEEFE	80s	F----EEEE
	90s	EE		
021030	80s	-----EEEE	90s	EE
021034	80s	-----EEEE	90s	EE

Gauged daily flows, monthly peaks and monthly rainfall

KEY:

	Complete rainfall	Incomplete or missing rainfall
Complete daily and complete peaks	A	a
Complete daily and partial peaks	B	b
Complete daily and no peaks	C	c
Partial daily and complete peaks	D	d
Partial daily and partial peaks	E	e
Partial daily and no peaks	F	f
No flow data	†	-

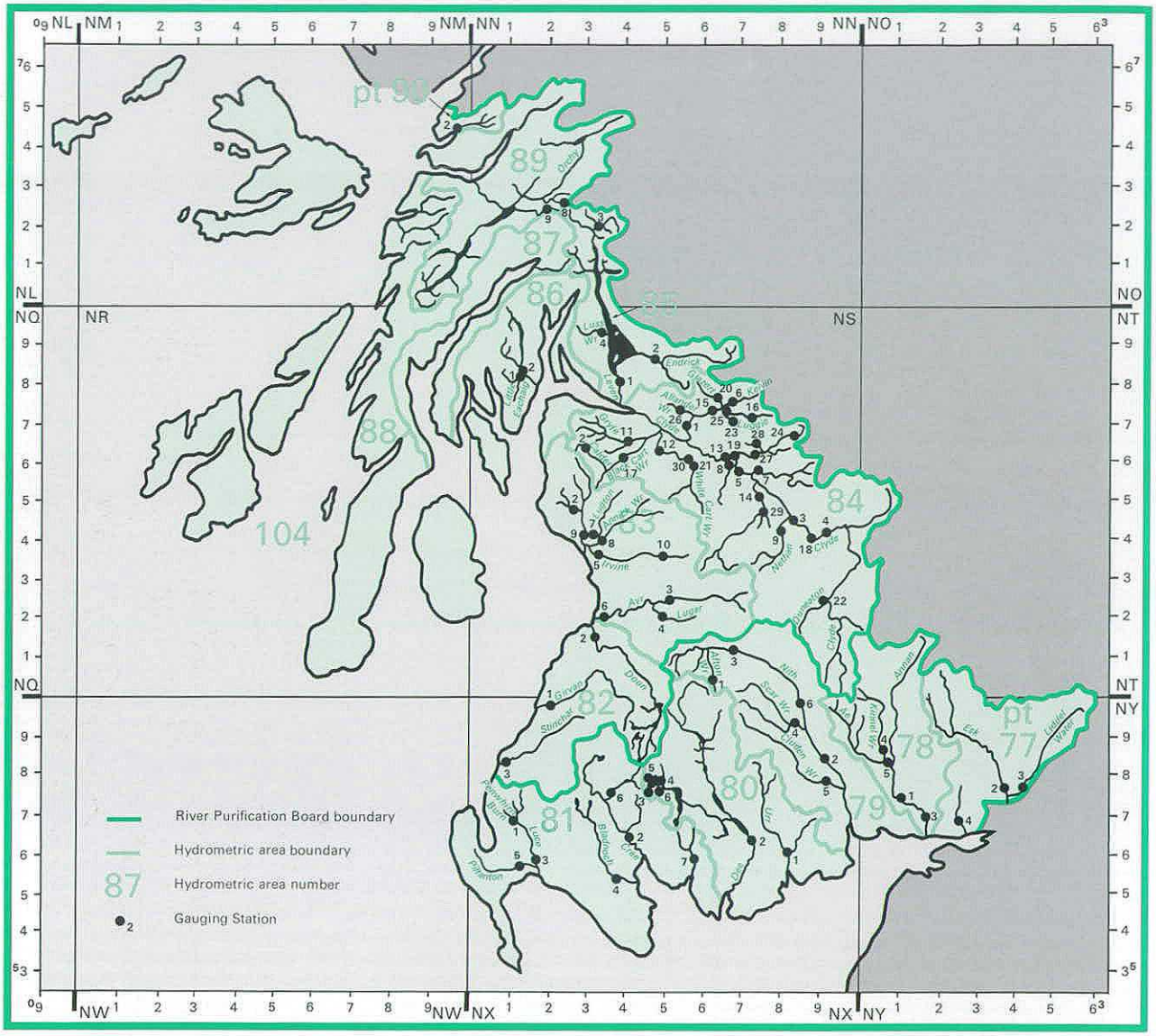
Naturalised daily and monthly flows

KEY:

Complete daily and complete monthly	A
Partial daily and complete monthly	B
Partial daily and partial monthly	C
Partial daily and no monthly	D
No daily and complete monthly	E
No daily and partial monthly	F
No naturalised flow data	-

Up-to-date Summaries of Archived Data are available on request from the National Water Archive Office.

SOLWAY RIVER PURIFICATION BOARD
and the
CLYDE RIVER PURIFICATION BOARD



SRPB
Area: 6,970 km²
Average Rainfall (1961–90): 1419mm

CRPB
Area: 13,555 km²
Average Rainfall (1961–90): 1697mm

Gauging Station Register

Station number	River name	Station name	Grid reference	Catchment area (sq km)	Station type	Period of record	Mean ann. rainfall (mm)	Mean ann. runoff (mm)	Mean ann. loss (mm)	Max. ann. runoff (mm)	Year of max.	Min. ann. runoff (mm)	Year of min.	Mean flow (m^3s^{-1})	Min. mon. flow (m^3s^{-1})	Month/Year of min.	Mean ann. flood (m^3s^{-1})	10 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
077002	Esk	Canonbie	NY 397751	495.0	VA	1962-90	1482	1080	402	1422	85	645	73	16.95	1.27	07/84	405.9	40.0	2.13
077003	Liddel Water	Rowanburnfoot	NY 415759	319.0	VA	1973-90	1409	1002	407	1291	85	743	76	10.14	0.87	08/76		25.4	1.03
077004	Kirtle Water	Mosskinowe	NY 285693	72.0	VA	1979-90	1263	805	458	927	80	552	89	1.84	0.09	08/84		4.7	0.13
078001 *	Annan	Saint Mungo's	NY 125755	730.3	VA	1958-61	1403	922	481	1090	60	835	59	21.34	3.22	09/59		55.6	2.61
078003	Annan	Brydekirk	NY 191704	925.0	VA	1967-90	1362	966	396	**1242**	**86**	559	73	28.32	1.94	07/84	320.5	67.6	3.37
078004	Kinnel Water	Redhall	NY 077868	76.1	VA	1963..90	1468	1094	374	**1457**	**86**	625	73	2.64	0.05	07/84	72.2	6.8	0.13
078005	Kinnel Water	Bridgemuir	NY 091845	229.0	VA	1979-90	1557	1097	460	1229	82	**895**	**89**	7.96	0.39	08/84	139.4	19.3	0.68
078006	Annan	Woodfoot	NT 099010	217.0	VA	1983-90	*1731*	1329	402	1577	86	1129	89	9.15	0.59	08/84		22.1	0.89
079001 *	Afton Water	Afton Reservoir	NS 631050	8.5	TP	1965..81	*2180*	735	1445	1109	77	293	73	0.20	>0.00	12/71		0.6	0.01
079002	Nith	Friars Carse	NX 923851	799.0	VA	1957-90	1531	1044	487	**1382**	**86**	681	71	26.44	1.54	08/84	487.9	64.8	2.68
079003	Nith	Hall Bridge	NS 684129	155.0	VA	1959-90	1633	1116	517	**1599**	**90**	673	71	5.49	0.27	08/76	80.8	14.9	0.34
079004	Scar Water	Capenoch	NX 845940	142.0	VA	1963-90	1679	1199	480	1548	82	787	73	5.40	0.17	07/84	148.8	13.5	0.31
079005	Cluden Water	Fiddlers Ford	NX 928795	238.0	VA	1963-90	1421	1020	401	1387	82	614	73	7.70	0.25	08/84	128.3	18.7	0.50
079006	Nith	Drumlanrig	NX 858994	471.0	VA	1967-90	1569	1091	478	1453	82	718	71	16.29	0.84	08/84	309.7	41.9	1.33
080001	Urr	Dalbeattie	NX 822610	199.0	VA	1963-90	1322	921	401	1325	82	493	73	5.81	**0.14**	**07/89**	97.3	14.8	0.25
080002	Dee	Glenlochar	NX 733641	809.0	VA	1977-90	1889	1622	267	1874	82	1368	78	41.62	2.06	08/84		102.8	3.17
080003	White Laggan	Loch Dee	NX 468781	5.7	VA	1980-90	*2642*	2263	379	**2517**	**88**	**1804**	**89**	0.41	0.01	05/84		1.1	0.02
080004	Greenburn	Loch Dee	NX 481791	2.6	VA	1988-90	2754	2280	474	2470	88	1909	89	0.19	0.01	06/88		0.5	0.01
080005	Dargall Lane	Loch Dee	NX 451787	2.1	VA	1983..90	*2703*	2448	255	2718	88	1952	89	0.16	0.01	05/84		0.4	0.01
080006	Blackwater	Loch Dee	NX 478797	15.6	VA	1983..90	*2958*	2331	627	2715	88	1953	89	1.15	0.06	08/83		2.6	0.08
081001 *	Penwhirn Brn	Penwhirn Res	NX 128694	18.2	TP	1965-68	1556	891	665	995	67	962	66	0.51	0.10	07/66		1.5	0.07
081002	Cree	Newton Stewart	NX 412653	368.0	VA	1963-90	1779	1326	453	1626	82	854	71	15.47	0.43	05/80	247.3	38.6	0.95
081003	Luce	Airyhemming	NX 180599	171.0	VA	1967-90	1470	1100	370	**1436**	**88**	681	71	5.96	0.19	07/84	148.4	16.0	0.28
081004	Bladnoch	Low Malzie	NX 382545	334.0	VA	1977-90	1405	976	429	**1182**	**88**	**694**	**89**	10.34	0.18	07/84		26.3	0.40
081005	Piltanton Brn	Barsolus	NX 107564	34.2	VA	1985-90	1196	717	479	871	87	515	89	0.78	0.07	07/89		1.9	0.08
081006	Minnoch Wtr	Minnoch Bridge	NX 363746	141.0	VA	1986-90	2331	1744	587	1953	90	1342	89	7.80	0.64	06/88		18.9	0.41
081007	Water of Fleet	Rusko	NX 592590	76.4	VA	1988-90	*2093*				90		89	3.44	0.27	07/89		7.8	0.22
082001	Girvan	Robstone	NX 217997	245.5	VA	1963..90	1381	828	553	**1111**	**90**	542	73	6.45	**0.26**	**07/89**	95.7	15.8	0.50
082002	Doon	Auchendrane	NS 338160	323.8	VA	1974-90	1661	721	940	**847**	**90**	542	76	7.40	**2.27**	**06/89**		15.1	2.65
082003	Stinchar	Balnowlart	NX 108832	341.0	VA	1973..90	1636	1004	632	1261	82	577	75	10.86	0.30	08/76		26.6	0.46
083002 *	Garnock	Dalry	NS 293488	88.8	VA	1963-77	1656	980	676	1214	66	701	69	2.75	0.16	04/74	56.9	7.3	0.15
083003	Ayr	Catrine	NS 525259	166.3	VA	1970-90	1314	950	364	**1282**	**90**	685	71	5.01	0.41	08/84	157.1	13.0	0.52
083004	Lugar	Langholm	NS 508217	181.0	VA	1972-90	1309	974	335	**1348**	**90**	659	76	5.59	0.25	07/76	145.8	15.0	0.27
083005	Irvine	Shewalton	NS 345369	380.7	VA	1972..90	1249	792	457	**935**	**88**	555	73	9.56	0.33	08/84	221.2	24.9	0.54
083006	Ayr	Mainholm	NS 361216	574.0	VA	1976-90	*1358*	866	492	**1040**	**90**	**648**	**89**	15.77	1.15	08/83	283.2	42.0	1.36
083007	Lugton Water	Eglinton	NS 315420	54.6	VA	1977-90	*1468*	999	469	**1153**	**88**	821	83	1.73	0.08	06/84	29.2	4.6	0.09
083008	Annick Water	Dreghorn	NS 352384	95.3	VA	1980..90	*1473*	1143	330	1684	90	908	83	3.45	0.11	08/84		8.5	0.23
083009	Garnock	Kilwinning	NS 307424	183.8	VA	1978-90	*1708*	1133	575	**1357**	**87**	**832**	**89**	6.60	0.15	07/84	191.9	16.9	0.22
083010	Irvine	Newmilns	NS 532372	72.8	FV	1977..90	*1491*	1451	40	3046	78	**825**	**89**	3.35	0.16	07/84		7.3	0.20
084001	Kelvin	Killermont	NS 558705	335.1	VA	1948..90	1242	786	456	1231	54	521	59	8.35	1.36	05/84	90.4	19.4	1.64
084002 *	Calder	Muirshiel	NS 309638	12.4	TP	1952..76	2189	1640	549	2235	61	1101	69	0.64	0.05	04/74	18.1	1.8	0.03
084003	Clyde	Hazelbank	NS 835452	1092.9	VA	1956..90	1186	762	424	**1144**	**90**	462	73	26.42	**3.65**	**07/89**	290.3	58.8	5.35
084004	Clyde	Sills	NS 927424	741.8	VA	1957..90	1247	766	481	**1002**	**86**	454	73	18.01	2.28	08/84	214.6	39.6	3.56
084005	Clyde	Blairston	NS 704579	1704.2	VA	1958-90	1158	763	395	**1088**	**90**	501	73	41.23	4.54	08/84	416.9	97.1	7.82
084006 *	Kelvin	Bridgend	NS 672749	63.7	VA	1963..83	1304	981	323	1604	82	538	72	1.98	0.21	10/72	15.3	4.6	0.30
084007	S Calder Wtr	Forgewood	NS 751585	93.0	CC	1965..90	952	661	291	**864**	**90**	417	73	1.95	0.66	08/75	23.2	3.7	0.72
084008	Rotten Calder	Redlees	NS 679604	51.3	CC	1966-90	1197	917	280	**1384**	**90**	579	69	1.49	0.12	06/68	33.6	3.9	0.17
084009	Nethan	Kirkmuirhill	NS 809429	66.0	CC	1966..90	1206	879	327	**1047**	**90**	522	69	1.84	0.14	08/76	41.6	3.8	0.17
084011	Gryfe	Craigend	NS 415664	71.0	VA	1963-90	1795	1620	175	**2392**	**90**	1009	69	3.65	0.16	07/84	83.4	9.6	0.27
084012	Wht Cart Wtr	Hawkhead	NS 499629	227.2	VA	1963-90	1276	925	351	**1270**	**90**	613	69	6.66	0.56	07/84	118.9	17.1	0.92
084013	Clyde	Daldowie	NS 672616	1903.1	VA	1963-90	1142	759	383	**1109**	**90**	512	73	45.79	8.57	08/84	439.2	105.6	9.49
084014	Avon Water	Fairholm	NS 755518	265.5	VA	1964..90	1270	900	370	**1226**	**90**	588	69	7.58	0.28	07/84	194.6	20.1	0.48
084015	Kelvin	Dryfield	NS 638739	235.4	VA	1960..90	1301	880	421	1116	78	537	72	6.57	0.80	10/72	55.5	15.3	1.13
084016	Luggie Water	Condorrat	NS 739725	33.9	VA	1966..90	1086	797	289	1043	85	501	72	0.86	0.12	08/83	23.3	1.9	0.14
084017	Blk Cart Wtr	Milliken Park	NS 411620	103.1	VA	1967-90	1747	1388	359	**1908**	**86**	796	72	4.54	0.21	06/78	42.9	11.8	0.38
084018	Clyde	Tulliford Mill	NS 891404	932.6	VA	1969-90	1232	841	391	**1147**	**90**	504	73	24.86	2.51	08/76	264.5	56.5	3.80
084019	N Calder Wtr	Calderpark	NS 681625	129.8	VA	1963-90	974	574	400	**848**	**90**	355	73	2.36	0.41	07/84	32.4	5.1	0.55
084020	Glazert Water	Milton of C.	NS 656763	51.9	VA	1968..90	1605	1193	412	**1602**	**90**	824	72	1.96	0.09	07/84	58.2	4.9	0.16
084021 *	Wht Cart Wtr	Netherlee	NS 587597	91.6	MIS	1969..74	1174	1495		2084	70	1900	71	4.34	0.18	08/74		13.6	1.69
084022	Duneaton	Maidencots	NS 929259	110.3	VA	1966..90	1385	853	532	**1153**	**90**	578	73	2.98	0.22	07/84		7.2	0.45
084023	Bothlin Burn	Auchengeich	NS 680717	35.7	C	1973..90	1042	691	351	**812**	**90**	**489**	**89**	0.78	0.12	07/84	10.1	1.8	0.15
084024	N Calder Wtr	Hillend	NS 828678	19.9	FV	1972..90	*1042*	521	521	**696**	**86**	236	73	0.33	0.09	03/85		0.8	0.11
084025	Luggie Water	Oxgang	NS 666734	87.7	VA	1975..90	1102	869	233	**1175**	**86**	592	75	2.42	0.21	07/84	33.3	5.6	0.33
084026	Allander Wtr	Milngavie	NS 558738	32.8	VA	1974..90	*1617*	1270	347	**1555**	**90**	884	75	1.32	0.07	08/76	31.5	3.2	0.11
084027	N Calder Wtr	Calderbank	NS 765624	60.6	VA	1968..90	*955*	410	545	**666**	**88**	254	72	0.79	0.02	06/77		1.2	0.01
084029	Cander Water	Candermill	NS 765471	24.5	VA	1975..90	*1151*	725	426	**1036**	**90**	494	76	0.56	0.02	08/84	25.1	1.5	0.04
084030	Wht Cart Wtr	Overlee	NS 579575	111.8	MIS	1981..90	*1519*	1064	455	1277	90	912	87	3.77	0.30	07/84		10.0	0.40
085001	Leven	Linnbrane	NS 394803	784.3	VA	1963-90	2091	1691	400	**2174**	**90**	1235	69	42.06	4.56	08/84	114.6	82.8	8.22
085002	Endrick Wtr	Gaidrew	NS 485866	219.9	VA	1963..90	1473	1021	452	**1324**	**86**	677	69	7.12	0.40	08/83	120.9	18.6	0.59
085003	Falloch	Glen Falloch	NN 321197	80.3	VA	1970..90	2955	2187	768	**3035**	**90**	1744	72	5.57	0.13	05/80	158.1	15.6	0.25
085004	Luss Water	Luss	NS 356929	35.3	VA	1976..90	*2729*	2429	300	2946	86	2107	77	2.72	0.14	05/80		6.9	0.18
086001	Little Eachaig	Dalinlongart	NS 143821	30.8	VA	1968..90	2364	1723	641	**2205**	**90**	1001	69	1.68	0.05	05/80	56.4	4.5	0.08
086002	Eachaig	Eckford	NS 140843	139.9	VA	1968..90	2489	2274	215	**2858**	**86**	1660	71	10.09	0.50	05/80	79.9	25.1	0.75
089008	Eas Daimh	Eas Daimh	NN 239276	4.5		1981..90	*3299*	3238	61	3861	90	2663	84	0.46	0.05	05/84		1.2	0.04
089009	Eas AGhaill	Succoth	NN 209265	9.7		1981..90	*2924*	2445	479	2828	90	1993	87	0.75	0.05	05/84		2.0	0.04
090002 *	Creran	Taraphocain	NN 019468	66.1	VA	1977-81		2275		2588	80	1434	78	4.77	0.21	05/80		12.1	0.27

Hydrometric Statistics

	Period	Rainfall (mm)	% of pre1986	Runoff (mm)	% of pre1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
077002 Esk at Canonbie C.A: 495.0 km²	**62-85**	**1455**		**1047**		**16.44**	**648.3**	**31/10 1977**	**1.03**	**19/06 1978**	**38.7**	**9.26**	**2.07**
M.A: SRPB Level: 22m Local Number: 124													
F.A.R: SP B.F.I: .39 Sensitivity: 8.0	1986	1816	125	1416	135	22.22	266.7	10/01	2.08	04/10	56.1	14.58	2.39
Comment: Velocity-area station located on straight reach with natural channel control. Cableway. Steep bed, not high banks but all bar highest floods contained. Gravel bed. Black Esk Reservoir impounds about 1% of flows for export. # Natural upland catchment area around Eskdalemuir.	1987	1525	105	1134	108	17.79	310.5	21/08	2.48	28/05	42.2	9.91	3.29
	1988	1627	112	1238	118	19.38	298.7	01/02	1.84	30/06	43.6	13.66	2.62
	1989	1377	95	1047	100	16.43	371.9	09/03	1.20	22/07	37.5	10.01	1.42
	1990	1733	119	1316	126	20.65	372.4	06/10	2.41	05/08	52.9	8.15	2.90
077003 Liddel Water at Rowanburnfoot C.A: 319.0 km²	**73-85**	**1370**		**979**		**9.90**	**393.2**	**20/12 1982**	**0.63**	**26/07 1984**	**24.6**	**5.00**	**1.00**
M.A: SRPB Level: 27m Local Number: 125													
F.A.R: B.F.I: .32 Sensitivity: 8.8	1986	1670	122	1236	126	12.50	260.9	10/01	1.22	23/07	30.3	7.08	1.40
Comment: Velocity-area station on straight gravel bedded reach. Gravel shoal gives low flow control. Cableway. # Natural catchment.	1987	1477	108	1011	103	10.23	197.8	28/12	1.24	27/05	28.0	4.86	1.66
	1988	1526	111	1112	114	11.21	174.0	22/07	1.08	24/06	27.2	6.68	1.39
	1989	1249	91	861	88	8.71	345.3	09/03	0.64	24/07	21.1	3.96	0.74
	1990	1608	117	1088	111	11.00	349.1	24/02	0.96	15/09	29.1	3.58	1.17
077004 Kirtle Water at Mossknowe C.A: 72.0 km²	**79-85**	*1252*		**823**		**1.88**	**195.6**	**11/03 1979**	**0.05**	**24/08 1984**	**4.9**	**0.82**	**0.12**
M.A: SRPB Level: 21m Local Number: 123													
F.A.R: B.F.I: .31 Sensitivity: 17.8	1986	1324	106	854	104	1.95	35.5	31/12	0.12	03/03	5.1	1.06	0.16
Comment: Velocity-area station with cableway. Sited on straight reach above fall over rock bar acting as control. # Natural catchment.	1987	1352	108	863	105	1.97	69.6	21/08	0.15	08/07	5.1	0.87	0.22
	1988	1330	106	834	101	1.90	52.8	18/04	0.11	28/06	4.5	1.20	0.16
	1989	1025	82	552	67	1.26	30.1	09/03	0.05	21/07	3.3	0.56	0.08
	1990	1348	108	786	96	1.79	50.0	30/06	0.14	05/08	4.8	0.63	0.17
078003 Annan at Brydekirk C.A: 925.0 km²	**67-85**	**1324**		**923**		**27.06**	**499.1**	**31/10 1977**	**1.35**	**23/07 1984**	**64.5**	**16.27**	**3.27**
M.A: SRPB Level: 10m Local Number: 122													
F.A.R: N B.F.I: .44 Sensitivity: 7.3	1986	1628	123	1242	135	36.42	264.7	10/11	3.66	26/07	88.0	23.43	4.27
Comment: Velocity-area station with cableway located on straight section below bend and with slightly curving channel below. # Natural agricultural catchment.	1987	1487	112	1140	124	33.45	378.9	21/08	4.57	24/05	76.6	20.92	6.25
	1988	1500	113	1151	125	33.66	305.0	02/02	2.91	29/06	72.2	24.95	3.47
	1989	1267	96	870	94	25.53	293.3	10/03	1.73	06/08	55.2	16.55	2.23
	1990	1609	122	1204	130	35.31	291.7	05/02	4.32	06/08	96.4	16.75	5.18
078004 Kinnel Water at Redhall C.A: 76.1 km²	**63..85**	**1435**		**1050**		**2.53**	**110.9**	**30/10 1977**	**0.03**	**25/08 1984**	**6.4**	**1.15**	**0.12**
M.A: SRPB Level: 54m Local Number: 119													
F.A.R: B.F.I: .28 Sensitivity: 31.2	1986	1706	119	1458	139	3.52	79.2	10/11	0.19	26/07	10.5	1.82	0.21
Comment: Velocity-area station. Informal low-flow control installed in 1966. Located on straight gravel bedded reach. # Natural catchment.	1987	1560	109	1178	112	2.84	72.7	19/10	0.23	28/05	6.9	1.30	0.37
	1988	1625	113	1337	127	3.22	91.0	01/02	0.11	28/06	8.5	1.92	0.17
	1989	1428	100	1019	97	2.46	77.5	12/01	0.04	22/07	6.5	1.21	0.11
	1990	1753	122	1422	135	3.43	89.3	26/12	0.19	07/08	9.3	1.18	0.29
078005 Kinnel Water at Bridgemuir C.A: 229.0 km²	**79-85**	**1527**		**1084**		**7.87**	**157.6**	**22/09 1985**	**0.30**	**26/08 1984**	**18.9**	**4.05**	**0.60**
M.A: SRPB Level: 45m Local Number: 120													
F.A.R: B.F.I: .37 Sensitivity: 12.4	1986	1674	110	1179	109	8.56	115.2	10/11	0.72	26/09	21.9	5.10	0.80
Comment: Velocity-area station on small channel at well confined section. Large bend upstream but straight at gauge. Natural channel control. Cableway. # Natural catchment. Drains Forest of Ae.	1987	1579	103	1126	104	8.18	142.4	21/08	0.86	27/05	18.1	4.43	1.25
	1988	1627	107	1187	110	8.59	145.4	01/02	0.58	30/06	20.5	5.55	0.78
	1989	1381	90	895	83	6.50	112.9	12/01	0.45	24/07	16.0	4.05	0.53
	1990	1714	112	1187	110	8.62	124.0	23/01	0.87	07/08	21.3	3.67	1.12
078006 Annan at Woodfoot C.A: 217.0 km²	83-85			1266		8.71	157.1	22/12 1985	0.43	27/08 1984	22.3	4.53	0.61
M.A: SRPB Level: m Local Number: 121													
F.A.R: N B.F.I: .42 Sensitivity: 9.9	1986	1995		1577	125	10.85	134.2	10/11	1.07	26/07	25.9	7.05	1.21
Comment: Velocity area station. Cableway span 52m. Good approach, steep lhb. Cableway spans immediate rhb and subsidiary flood bank. Natural catchment.Responsive catchment. # High relief upland catchment draining Silurian slates, shales and mudstones. Appreciably drift free; valleys with boulder clay and alluvium, sands and gravels near the station.	1987	1591		1194	94	8.22	150.4	18/10	1.14	27/05	15.5	4.98	1.87
	1988	1658		1311	104	9.00	109.4	26/10	0.81	29/06	20.8	6.42	0.98
	1989	1502		1129	89	7.77	123.2	12/01	0.52	24/07	18.1	4.77	0.75
	1990	1910		1555	123	10.70	146.9	04/02	1.14	28/05	27.7	4.70	1.46
079002 Nith at Friars Carse C.A: 799.0 km²	**57-85**	**1496**		**1014**		**25.70**	**1274.0**	**16/01 1962**	**1.15**	**27/08 1984**	**62.8**	**14.22**	**2.64**
M.A: SRPB Level: 20m Local Number: 114													
F.A.R: SP B.F.I: .39 Sensitivity: 7.6	1986	1844	123	1382	136	35.02	399.4	10/01	3.06	17/10	98.4	18.70	3.46
Comment: Velocity-area station with cableway. Straight approach with bends 150m below station which probably control higher flows. Shallow section with gravel bed. # Natural catchment.	1987	1563	104	1091	108	27.65	472.7	19/10	3.35	28/05	61.2	16.85	5.34
	1988	1741	116	1256	124	31.74	563.5	01/02	2.38	30/06	76.4	21.32	3.05
	1989	1462	98	982	97	24.89	442.3	24/12	1.60	19/07	58.6	14.83	1.98
	1990	1872	125	1322	130	33.50	497.6	25/12	3.05	06/08	85.6	14.91	4.05
079003 Nith at Hall Bridge C.A: 155.0 km²	**59-85**	**1609**		**1077**		**5.29**	**212.4**	**15/01 1962**	**0.13**	**28/08 1976**	**14.3**	**2.34**	**0.33**
M.A: SRPB Level: 173m Local Number: 118													
F.A.R: SP B.F.I: .27 Sensitivity: 33.2	1986	1902	118	1456	135	7.16	58.8	13/12	0.27	15/07	21.9	3.23	0.43
Comment: Velocity-area station. All flows contained by bridge opening below station which is likely high flow control. Low flows controlled by riffles near bridge. Straight and uniform approach. # Largely natural with controlled storage of Afton Reservoir having occasional significant effect.	1987	1568	97	1097	102	5.39	64.2	18/10	0.46	28/05	14.7	2.80	0.70
	1988	1834	114	1394	129	6.83	75.3	01/02	0.19	29/06	18.0	3.73	0.31
	1989	1490	93	1070	99	5.26	73.5	24/12	0.20	24/07	14.6	2.09	0.25
	1990	2010	125	1598	148	7.86	86.3	25/12	0.42	26/07	23.6	3.00	0.57
079004 Scar Water at Capenoch C.A: 142.0 km²	**63-85**	**1636**		**1166**		**5.25**	**232.1**	**30/10 1977**	**0.08**	**26/08 1976**	**12.9**	**2.63**	**0.30**
M.A: SRPB Level: 49m Local Number: 116													
F.A.R: B.F.I: .32 Sensitivity: 16.9	1986	2027	124	1474	126	6.64	112.9	10/01	0.28	23/07	19.1	3.46	0.34
Comment: Velocity-area station with cableway. Control of pre-cast concrete sections installed during winter of 1986/7 replacing earlier 1981 gabion control. Fairly straight gravel bedded reach. Well confined for all but extreme flows. # Natural catchment.	1987	1782	109	1203	103	5.42	107.0	18/10	0.41	28/05	12.8	2.87	0.67
	1988	1976	121	1486	127	6.67	144.0	01/02	0.22	29/06	16.1	4.25	0.40
	1989	1668	102	1148	98	5.17	105.1	24/12	0.12	25/07	13.4	2.66	0.18
	1990	2032	124	1410	121	6.35	133.6	17/02	0.31	07/08	17.0	2.60	0.56
079005 Cluden Water at Fiddlers Ford C.A: 238.0 km²	**63-85**	**1383**		**990**		**7.47**	**278.0**	**01/11 1977**	**0.17**	**18/08 1977**	**18.1**	**4.02**	**0.47**
M.A: SRPB Level: 23m Local Number: 115													
F.A.R: SP B.F.I: .38 Sensitivity: 13.8	1986	1687	122	1233	125	9.31	113.9	10/01	0.53	27/07	24.1	5.16	0.64
Comment: Velocity-area station under natural channel control. Straight reach with gravel bed. Cableway. # Natural catchment. Contains Glenkin Reservoir, 1-2% of flows abstracted.	1987	1580	114	1120	113	8.45	142.9	19/10	0.71	28/05	18.7	4.60	1.10
	1988	1708	123	1319	133	9.93	134.2	01/02	0.46	30/06	22.4	6.56	0.66
	1989	1353	98	896	91	6.76	110.7	12/01	0.23	25/07	16.0	3.45	0.30
	1990	1675	121	1192	120	9.00	104.6	25/12	0.68	28/05	23.5	3.85	0.87

		Period	Rainfall (mm)	% of pre1986	Runoff (mm)	% of pre1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
079006	**Nith at Drumlanrig** C.A: 471.0 km²	**67-85**	**1521**		**1049**		**15.66**	**538.4**	**18/10 1982**	**0.61**	**26/08 1984**	**40.4**	**7.86**	**1.31**
M.A: SRPB	Level: 52m Local Number: 117													
F.A.R: SP	B.F.I: .34 Sensitivity: 6.0	1986	1922	126	1432	137	21.38	293.9	10/01	1.45	17/10	62.6	10.84	1.68
Comment: Velocity-area station on long straight reach at particularly well confined site. Cableway. Gravel and rock bed. Natural channel control. # Sensibly natural flow regime. Afton Reservoir has small influence.		1987	1568	103	1044	100	15.59	272.5	18/10	1.72	08/07	37.0	8.59	2.94
		1988	1800	118	1301	124	19.38	401.5	01/02	1.02	30/06	47.8	11.41	1.36
		1989	1523	100	1030	98	15.38	342.6	24/12	0.78	24/07	37.4	7.98	1.03
		1990	1986	131	1423	136	21.26	359.4	25/12	1.64	07/08	60.6	8.81	2.23
080001	**Urr at Dalbeattie** C.A: 199.0 km²	**63-85**	**1287**		**899**		**5.67**	**164.3**	**20/12 1982**	**0.07**	**22/07 1978**	**14.4**	**2.93**	**0.24**
M.A: SRPB	Level: 4m Local Number: 112													
F.A.R:	B.F.I: .36 Sensitivity: 9.6	1986	1544	120	1118	124	7.05	103.6	10/01	0.36	06/10	19.1	3.69	0.47
Comment: Velocity-area station located between two sharp bends. Gravel and rock bar forms low flow control. Cableway. Occasional tidal peaks recorded. # Natural catchment.		1987	1495	116	1086	121	6.85	135.2	19/10	0.42	29/05	17.4	3.75	0.57
		1988	1573	122	1159	129	7.29	100.1	01/02	0.19	04/07	16.1	4.93	0.33
		1989	1210	94	759	84	4.79	76.7	12/01	**0.06**	**24/07**	12.0	2.28	0.10
		1990	1548	120	968	108	6.11	76.0	28/12	0.24	07/08	16.6	2.36	0.41
080002	**Dee at Glenlochar** C.A: 809.0 km²	**77-85**	**1835**		**1586**		**40.68**	**341.8**	**05/01 1982**	**1.38**	**16/05 1978**	**101.4**	**29.08**	**3.31**
M.A: SRPB	Level: 43m Local Number: 107													
F.A.R:	B.F.I: .40 Sensitivity: 10.8	1986	2051	112	1768	111	45.36	218.8	14/12	4.10	07/10	115.6	32.54	5.51
Comment: Velocity-area station on a gentle bend about 500m downstream of Glen Lochar Barrage. Flood banks contain all flows. Gravel bed with some large boulders. Natural channel control. Cableway. # Lowest gauge on highly regulated river.		1987	1881	102	1580	100	40.53	204.5	29/12	5.88	09/07	93.4	28.20	7.14
		1988	2101	114	1879	118	48.07	242.0	02/02	1.89	05/07	108.5	39.52	2.31
		1989	1669	91	1383	87	35.48	196.7	10/03	2.11	19/07	88.1	24.19	2.63
		1990	2154	117	1783	112	45.75	230.2	26/12	2.61	11/05	115.2	30.15	6.26
080003	**White Laggan Burn at Loch Dee** C.A: 5.7 km²	**80-85**			**2296**		**0.42**	**259.7**	**04/01 1980**	**0.00**	**27/08 1984**	**1.1**	**0.17**	**0.02**
M.A: SRPB	Level: 226m Local Number: 108													
F.A.R:	B.F.I: .19 Sensitivity: 44.4	1986	2608		2271	99	0.41	6.9	08/12	0.01	02/07	1.1	0.20	0.02
Comment: Velocity-area station. Informal wooden assymetrical Flat V weir controls most flows. Occasional backwater effects from Loch Dee after prolonged wet periods. Gauge on long straight section with gravel bed and low grassy banks. # 20% of catchment covered by young forestry plantation, rest is rugged upland.		1987	2419		2092	91	0.38	6.3	11/07	0.02	20/06	1.0	0.15	0.03
		1988	2997		2525	110	0.46	7.5	18/08	0.01	28/06	1.2	0.23	0.01
		1989	2340		1802	78	0.33	7.6	14/08	0.00	21/07	0.9	0.14	0.01
		1990	2844		2443	106	0.44	7.5	29/08	0.01	26/07	1.1	0.22	0.02
080004	**Greenburn at Loch Dee** C.A: 2.6 km²													
M.A: SRPB	Level: m Local Number: 110													
F.A.R: N	B.F.I: .32 Sensitivity: 18.7	1986	2708											
Comment: Velocity area station with an informal V shaped timber control. Natural catchment. # Moderate relief moorland catchment draining granite; Boulder Clay and peat superficial cover on lower slopes. Young coniferous plantations.		1987	2467											
		1988	3021		2470	39	0.20		18/08	0.00	04/07	0.6	0.09	0.01
		1989	2354		1909	30	0.16		14/08	0.00	21/07	0.4	0.06	0.01
		1990	2887		2461	39	0.20		29/01	0.00	28/05	0.6	0.09	0.01
080005	**Dargall Lane at Loch Dee** C.A: 2.1 km²	83-85			2433		0.16	11.3	29/01 1984	0.00	27/08 1984	0.4	0.08	0.01
M.A: SRPB	Level: m Local Number: 111													
F.A.R: N	B.F.I: .29 Sensitivity: 30.6	1986	2687											
Comment: Natural river section with boulder control. Reasonable approach, gauged by wading. Natural catchment. # Moderate relief moorland catchment, draining granite; shallow peat and boulder clay cover on lower slopes.		1987	2447											
		1988	2937		2723	112	0.18	3.7	14/08	0.01	24/06	0.4	0.11	0.01
		1989	2258		1958	80	0.13	3.8	14/08	0.00	20/07	0.3	0.08	0.01
		1990	2914		2649	109	0.18	2.4	02/10	0.01	25/07	0.4	0.11	0.02
080006	**Blackwater at Loch Dee** C.A: 15.6 km²	83-85			2254			8.0	22/09 1985	0.02	31/05 1984	2.7	0.78	0.07
M.A: SRPB	Level: 225m Local Number: 109													
F.A.R: N	B.F.I: .45 Sensitivity:	1986												
Comment: Velocity-area station in a straight, deep channel immediately below Loch Dee. High flow gaugings taken from nearby foot bridge. Banks overtopped at high stages (but little flow over tossocky flood plain). Operated as part of the Loch Dee Acidification project. # A steep, wet upland catchment developed on mixed geology (Silurian/Ordivian formations and granite). Partly afforested, heather moorland at higher altitudes.		1987													
		1988	3021		2721	121	1.34	4.7	18/08	0.04	04/07	2.8	1.24	0.08
		1989			1953	87	0.97	4.2	10/03	0.04	27/07	2.2	0.76	0.08
		1990	2890		2553	113	1.26	6.9	06/10	0.09	07/08	2.7	0.93	0.14
081002	**Cree at Newton Stewart** C.A: 368.0 km²	**63-85**	**1730**		**1295**		**15.11**	**318.0**	**02/10 1982**	**0.14**	**02/09 1976**	**37.5**	**7.85**	**0.96**
M.A: SRPB	Level: 5m Local Number: 104													
F.A.R:	B.F.I: .27 Sensitivity: 7.6	1986	2075	120	1540	119	17.97	251.9	12/12	0.69	03/07	46.7	9.93	0.96
Comment: Velocity-area station located on long reasonably straight gravel bedded reach. Cableway. Natural controls, gravel riffle 50m below site controls lower flows. # Natural catchment with a few small lochs, moorland and forest.		1987	1950	113	1511	117	17.63	223.1	11/07	1.14	28/05	45.8	8.29	1.99
		1988	2199	127	1621	125	18.87	243.4	13/01	0.28	29/06	42.8	12.40	0.60
		1989	1631	94	1066	82	12.44	168.8	17/12	0.25	24/07	32.1	6.80	0.57
		1990	2210	128	1563	121	18.24	215.4	03/10	0.56	07/08	44.3	9.83	1.08
081003	**Luce at Airyhemming** C.A: 171.0 km²	**67-85**	**1423**		**1073**		**5.82**	**231.8**	**03/10 1981**	**0.09**	**26/07 1984**	**15.6**	**2.35**	**0.28**
M.A: SRPB	Level: 19m Local Number: 102													
F.A.R: SP	B.F.I: .23 Sensitivity: 15.4	1986	1635	115	1159	108	6.29	193.8	15/12	0.19	13/07	18.6	2.91	0.26
Comment: Velocity-area station on long straight and uniform reach with wooded banks. Natural channel controls. Cableway. # Natural catchment draining westerly end of Southern Uplands. Penwhirn Reservoir abstractions constitute about 2% of flows.		1987	1673	118	1275	119	6.91	**283.6**	**13/08**	0.27	08/07	16.8	3.05	0.52
		1988	1817	128	1440	134	7.79	182.0	15/03	0.12	21/06	21.6	4.28	0.23
		1989	1422	100	944	88	5.12	109.7	16/12	0.16	24/07	14.6	2.25	0.19
		1990	1656	116	1195	111	6.48	109.9	24/11	0.19	06/08	17.3	3.00	0.43
081004	**Bladnoch at Low Malzie** C.A: 334.0 km²	**77-85**	**1375**		**965**		**10.22**	**144.4**	**02/10 1981**	**0.05**	**27/07 1984**	**26.3**	**5.63**	**0.36**
M.A: SRPB	Level: 11m Local Number: 103													
F.A.R:	B.F.I: .33 Sensitivity: 21.5	1986	1449	105	998	103	10.56	97.7	16/12	0.38	12/07	28.3	6.44	0.48
Comment: Velocity-area station on straight reach in a meandering section of river situated in pastures. Long cableway ensures flows over berms gauged. Weedy islands below gauge. Natural controls.		1987	1522	111	1126	117	11.92	111.2	14/08	0.90	28/05	27.9	6.59	1.40
		1988	1645	120	1185	123	12.52	95.8	16/03	0.21	29/06	27.8	8.59	0.47
		1989	1183	86	694	72	7.35	65.4	17/12	0.17	22/07	20.6	4.16	0.29
		1990	1478	107	971	101	10.28	76.0	03/10	0.35	07/08	26.3	5.75	0.64
081005	**Piltanton Burn at Barsolus** C.A: 34.2 km²	85-85						13.5	31/12 1985	0.38	29/12 1985			
M.A: SRPB	Level: m Local Number: 101													
F.A.R: N	B.F.I: .37 Sensitivity:	1986	1132		726		0.79	9.9	05/11	0.07	12/10	2.2	0.38	0.09
Comment: Velocity-area station (with cableway) in artificially deepened channel contained in timber revetments, informal check weir, just d/s. Weed growth and resulting siltation are major problems but gauged reach periodically cleared. # Small catchment in productive agricultural area; significant arable farming, grazing also.		1987	1279		871		0.95	19.1	13/08	0.07	21/05	2.4	0.46	0.11
		1988	1312		803		0.87	17.2	15/03	0.05	06/07	2.0	0.62	0.08
		1989	1053		515		0.56	13.1	23/09	0.05	17/07	1.2	0.37	0.06
		1990	1204		623		0.68	14.1	28/10	0.08	27/05	1.7	0.34	0.11

	Period	Rainfall (mm)	% of pre1986	Runoff (mm)	% of pre1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
081006 Water of Minnoch at Minnoch Bridge													
M.A: SRPB Level: 27m Local Number: 105													
F.A.R: N B.F.I: .26 Sensitivity:	1986	2439											
Comment: Velocity-area with cableway; gravel control in a straight reach. Flows fully contained on left bank, floodbank on right has been breached (and flows behind it gauged). # Moorland at highest levels with considerable afforestation below. Geology: mostly Ordovician cut by dykes.	1987	2169		1681		7.52	131.8	21/08	0.49	28/05	18.2	3.92	0.87
	1988	2523		1911		8.52	140.7	13/01	0.19	26/06	20.6	5.40	0.30
	1989	1911		1342		6.00	79.6	17/12	0.16	24/07	15.2	3.23	0.34
	1990	2613		1953		8.73	152.9	25/12	0.32	03/08	21.7	4.52	0.57
081007 **Water of Fleet at Rusko** C.A: 76.4 km^2													
M.A: SRPB Level: m Local Number: 106													
F.A.R: N B.F.I: .30 Sensitivity:	1986												
Comment: Velocity-area station with cableway below a slight left-hand bend. Stable gravel bank control. Flows fully contained. # Land use mostly forestry and hill grazing. Geology comprises mainly Llandovery formations in the south and granite in the north.	1987												
	1988												
	1989					2.74	71.2	17/12	0.10	18/07	6.8	1.48	0.16
	1990	2093				3.62	92.9	02/10	0.19	07/08	8.6	1.71	0.38
082001 **Girvan at Robstone** C.A: 245.5 km^2	**63-85**	**1349**		**803**		**6.25**	**183.0**	**20/12**	**0.03**	**11/07**	**15.3**	**3.14**	**0.52**
M.A: CRPB Level: 9m Local Number:								**1982**		**1977**			
F.A.R: S B.F.I: .32 Sensitivity: 10.9	1986	1640	122	1041	130	8.10	90.8	17/11	0.33	19/09	22.7	3.83	0.44
Comment: Velocity-area station with gravel bar control - subject to regrading in substantial floods. Flood banks now contain all flows, previously inundation across the right bank. Runoff diminished by abstractions from Loch Bradan. Additional storage in a few high level lochs. # An upland catchment draining from Carrick Forest. Complex geology: Ordovician/Carboniferous metamorphics and igneous formations; Drift and peat also. Land use: mostly hill pasture with some mixed farming in the valley and afforestation in the headwaters.	1987	1380	102	857	107	6.67	110.6	11/07	0.48	08/07	16.1	3.67	0.93
	1988	1558	115	984	123	7.64	103.7	13/01	**0.02**	**28/06**	17.9	4.43	0.13
	1989	1286	95										
	1990	1741	129	1111	138	8.65	129.6	26/12	0.16	02/08	21.1	3.40	0.34
082002 **Doon at Auchendrane** C.A: 323.8 km^2	**74-85**	**1605**		**702**		**7.21**	**121.5**	**31/10**	**2.14**	**01/08**	**14.4**	**4.90**	**2.76**
M.A: CRPB Level: 22m Local Number:								**1977**		**1974**			
F.A.R: S B.F.I: .57 Sensitivity: 6.2	1986	1926	120	830	118	8.52	74.2	31/12	3.02	11/04	20.4	4.97	3.37
Comment: Velocity-area station in a straight section; riffle control at low flows, rock boulder control at high discharges. Wide floodplain upstream but all flows contained. Flow regime is heavily influenced by regulation releases from Loch Doon (129.5 sq. km) - large export of water reduces runoff substantially. # Upland catchment developed on basement rocks metamorphosed sediments (Ordovician and Carboniferous) and igneous formations; Drift also. Hill pasture is the principal land use, some afforestation - mostly in headwaters.	1987	1618	101	742	106	7.62	69.5	28/03	2.59	25/05	15.7	5.34	3.00
	1988	1855	116	785	112	8.04	66.8	16/03	2.33	22/05	15.8	6.10	2.54
	1989	1525	95	616	88	6.32	45.7	22/03	**2.00**	**19/06**	13.0	4.25	2.08
	1990	2068	129	847	121	8.70	65.7	25/12	2.10	19/07	19.8	5.08	2.52
082003 **Stinchar at Balnowlart** C.A: 341.0 km^2	**73..85**	**1584**		**977**		**10.56**	**273.0**	**20/12**	**0.03**	**08/07**	**26.2**	**5.44**	**0.41**
M.A: CRPB Level: 3m Local Number:								**1982**		**1975**			
F.A.R: B.F.I: .30 Sensitivity: 13.0	1986	1847	117	1111	114	12.01	206.6	15/12	0.45	20/09	32.7	6.56	0.67
Comment: Velocity-area station in long straight reach; riffle control. All but exceptional floods contained. Hydrometric performance has been modestly affected by a leaking stilling well. PWS abstractions cause a small reduction in runoff. Very limited storage within the catchment. # Upland catchment draining from Carrick Forest. Geology is dominated by metamorphosed sediments (Ordovician) with igneous outcrops in the headwaters - and peat; Drift also. Hill pasture is the principal land use with some afforestation in the headwaters.	1987	1689	107	1036	106	11.20	192.7	11/07	0.60	28/05	27.2	6.63	1.15
	1988	1885	119	1120	115	12.08	200.7	13/01	0.25	29/06	27.3	8.16	0.39
	1989	1482	94										
	1990	1916	121	1252	128	13.54	208.2	26/12	0.54	28/05	30.4	8.25	1.21
083003 **Ayr at Catrine** C.A: 166.3 km^2	**70-85**	**1278**		**921**		**4.86**	**178.5**	**03/01**	**0.21**	**26/05**	**12.6**	**2.13**	**0.50**
M.A: CRPB Level: 90m Local Number:								**1981**		**1974**			
F.A.R: H B.F.I: .29 Sensitivity: 16.7	1986	1549	121	1122	122	5.92	109.2	29/12	0.58	17/09	15.2	2.58	0.70
Comment: Velocity-area station in a long straight reach with a large pipe forming an informal broad-crested control (somewhat insensitive). All flows contained. A responsive, natural catchment but the flow pattern is modestly affected by the operation of a small HEP scheme 1km upstream. # A catchment of rugged topography draining westwards from the Southern Uplands. Geology is complex with Carboniferous sediments and igneous outcrops predominating; Drift and peat also. Hill grazing is the main land use.	1987	1263	99	933	101	4.92	90.9	26/12	0.66	08/07	12.5	2.43	0.86
	1988	1455	114	1074	117	5.65	87.3	10/02	0.55	16/06	13.9	3.21	0.63
	1989	1203	94	775	84	4.09	70.6	22/03	0.34	05/07	10.8	1.87	0.46
	1990	1686	132	1282	139	6.76	102.9	07/03	0.53	01/08	17.6	3.15	0.76
083004 **Lugar at Langholm** C.A: 181.0 km^2	**72-85**	**1266**		**922**		**5.29**	**261.7**	**03/01**	**0.07**	**03/09**	**14.2**	**2.15**	**0.24**
M.A: CRPB Level: 81m Local Number:								**1981**		**1981**			
F.A.R: B.F.I: .25 Sensitivity: 10.0	1986	1531	121	1225	133	7.03	111.1	29/12	0.42	13/07	21.0	2.96	0.48
Comment: Velocity-area station with rock/boulder control (may be subject to erosion/accretion) plus a thin-plate weir in the mill lade. Combined flows are archived. Very responsive, natural catchment (minor effluent discharge close to the station). # An upland catchment developed, mainly, on Carboniferous sediments (chiefly Coal Measures) and igneous formations; Drift also. Hill grazing is the major land use; some forestry.	1987	1251	99	979	106	5.62	125.9	11/07	0.49	10/08	14.5	3.05	0.66
	1988	1479	117	1176	128	6.73	136.6	19/12	0.36	24/06	16.7	3.61	0.44
	1989	1189	94	835	91	4.79					12.3	1.98	0.38
	1990	1657	131	1348	146	7.73	144.0	26/12	0.33	02/08	20.8	3.34	0.53
083005 **Irvine at Shewalton** C.A: 380.7 km^2	**72-85**	**1213**		**764**		**9.23**	**341.2**	**18/01**	**0.02**	**05/06**	**23.6**	**3.92**	**0.53**
M.A: CRPB Level: 5m Local Number:								**1974**		**1985**			
F.A.R: E B.F.I: .26 Sensitivity: 8.3	1986	1384	114	881	115	10.63	194.3	05/11	0.43	23/07	30.2	4.48	0.62
Comment: Velocity-area station with rock bar/bridge debris control channel control at high flows. All flows contained. A responsive, sensibly natural flow regime (but affected by effluent from STW). # Generally an upland catchment but topography more subdued below Greenholm. Geology: mostly Carboniferous sediments with basalt tracts towards headwaters; Drift also. Land use: mixed farming and hill grazing; some forestry in the upper catchment, Kilmarnock (12km u/s) is the only large urban area.	1987	1222	101	794	104	9.58	150.6	27/12	0.34	08/07	27.8	4.17	0.64
	1988	1391	115	938	123	11.29	145.4	16/03	0.27	04/07	28.4	6.27	0.75
	1989	1132	93	680	89	8.20	118.4	14/08	0.13	24/06	23.9	3.56	0.34
	1990	1598	132										
083006 **Ayr at Mainholm** C.A: 574.0 km^2	**76-85**			**871**		**15.86**	**398.9**	**03/01**	**0.86**	**15/08**	**42.0**	**7.98**	**1.36**
M.A: CRPB Level: 3m Local Number:								**1981**		**1983**			
F.A.R: N B.F.I: .29 Sensitivity: 8.1	1986	1455		943	108	17.16	233.7	29/12	1.27	03/07	51.5	6.91	1.43
Comment: Velocity-area station in a long straight section; channel control. Very steep banks; the great majority of flows are contained - overspilling occurs on the left bank. A responsive, natural catchment. # Largely an upland catchment with more subdued topography below Catrine. Complex geology: Carboniferous (chiefly Coal Measures) sediments predominate, some igneous formations; Drift and peat also. Hill grazing is the principal land use in the headwaters, some mixed farming at lower levels.	1987	1207		765	88	13.93	219.8	11/07	1.58	08/07	35.4	7.57	2.14
	1988	1402		891	102	16.17	222.0	19/12	0.95	28/06	41.9	8.81	1.12
	1989	1134		648	74	11.79	185.3	25/12	**0.79**	**24/06**	30.5	5.25	1.03
	1990	1592		1040	119	18.93	278.2	26/12	1.07	07/08	53.3	8.48	1.70
083007 **Lugton Water at Eglinton** C.A: 54.6 km^2	**77-85**			**942**		**1.63**	**38.5**	**10/09**	**0.03**	**27/07**	**4.5**	**0.65**	**0.08**
M.A: CRPB Level: m Local Number:								**1978**		**1982**			
F.A.R: B.F.I: .25 Sensitivity: 55.2	1986	1526		1099	117	1.90	**44.7**	**05/11**	0.11	16/07	5.0	0.92	0.15
Comment: Velocity-area station with a broad-crested masonry weir as control - insensitive at low flows; algae can accumulate on crest. Cableway (in a straight reach) used for rating. Wide floodplain. Very responsive flow pattern. # A linear catchment of subdued relief. Impervious - basalts predominate in the headwaters, Carboniferous sediments below; significant spreads of Drift.	1987	1330		946	100	1.64	29.3	20/01	0.09	28/05	4.5	0.68	0.16
	1988	1556		1156	123	2.00	27.3	16/03	0.06	27/06	4.7	1.11	0.10
	1989	1244		850	90	1.47	21.6	17/12	0.08	23/06	3.8	0.65	0.12
	1990	1684		1321	140	2.29					6.1	0.89	0.17

		Period	Rainfall (mm)	% of pre1986	Runoff (mm)	% of pre1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
083008	**Annick Water at Dreghorn** C.A: 95.3 km²	**80..85**			**1087**		**3.28**	**70.6**	**19/09 1985**	**0.07**	**19/08 1984**	**8.3**	**1.37**	**0.19**
M.A: CRPB	Level: m Local Number:													
F.A.R: N	B.F.I: .29 Sensitivity: 17.5	1986			1171	108	3.54	88.5	06/11	0.30	01/03	8.8	1.76	0.36
Comment: Velocity-area station. Bridge 30m downstream exercises some control. Various temporary controls have been employed since removal of an earlier weir (1982). * Mixed land use (mostly farming, some forestry and urban development). Geology: mainly Coal Measures overlain by Drift.		1987												
		1988												
		1989	1238		946	87	2.86	49.1	15/02	0.31	24/07	7.3	1.41	0.36
		1990	1701		1684	155	5.09	96.3	07/10	0.39	03/08	11.3	2.78	0.48
083009	**Garnock at Kilwinning** C.A: 183.8 km²	**78-85**			**1091**		**6.36**	**361.9**	**19/09 1985**	**0.09**	**23/08 1984**	**17.0**	**2.61**	**0.17**
M.A: CRPB	Level: m Local Number:													
F.A.R:	B.F.I: .22 Sensitivity: 9.0	1986	1816		1250	115	7.28	**374.2**	**05/11**	0.31	18/07	18.7	3.38	0.36
Comment: River section with long round-crested weir (with central rectangular notch) acting as the control. All flows contained. Exceptionally high tides may influence water levels. Very responsive catchment notwithstanding several reservoirs (including Muirhead) in the headwaters - small net diminution in runoff. * Rugged upland headwaters (peat overlying igneous formations), significant development in the lower valley (mostly Carboniferous sediments and Drift).		1987	1589		1357	124	7.91	209.4	31/03	0.32	27/05	16.1	2.32	0.53
		1988	1808		1246	114	7.24	136.1	14/08	0.19	25/06	17.9	3.76	0.34
		1989	1438		832	76	4.85	122.9	17/12	0.14	21/07	12.9	2.21	0.24
		1990	1895		1323	121	7.71	242.9	10/03	0.29	07/08	18.1	2.85	0.54
083010	**Irvine at Newmilns** C.A: 72.8 km²	**77..85**			**1672**		**3.86**	**163.5**	**10/09 1978**	**0.09**	**25/08 1984**	**8.2**	**1.42**	**0.19**
M.A: CRPB	Level: m Local Number:													
F.A.R: N	B.F.I: .38 Sensitivity: 19.2	1986	1588		1134	68	2.62	46.2	05/11	0.21	22/07	7.0	1.21	0.24
Comment: Flat V weir within broad-crested flanks in a long straight reach, superseded - in Sept 1976 - an unstable gravel bar control. Stage data collected for this site dates back to 1959. Sensibly natural flow regime. * Upland catchment developed on basalts and metamorphosed sedimentary formations (mostly Carboniferous and ORS); Drift also. Moorland and rough pasture predominate, significant afforestation in the north and some mixed farming in the valley - Greenholm and Darvel are the largest settlements.		1987	1340		974	58	2.25	41.1	26/12	0.20	08/07	5.5	1.02	0.30
		1988	1493		1097	66	2.53	38.3	19/08	0.18	28/06	5.9	1.57	0.21
		1989	1239		825	49	1.90	34.0	13/08	0.12	24/07	5.6	0.87	0.18
		1990	1791		1287	77	2.97	67.6	06/03	0.18	01/08	7.2	1.38	0.27
084001	**Kelvin at Killermont** C.A: 335.1 km²	**48..85**	**1220**		**772**		**8.21**	**175.2**	**18/10 1954**	**0.74**	**17/07 1962**	**18.8**	**5.05**	**1.62**
M.A: CRPB	Level: 27m Local Number:													
F.A.R: E	B.F.I: .44 Sensitivity: 6.6	1986	1559	128	955	124	10.15	87.5	26/11	1.46	25/09	25.2	6.23	1.95
Comment: Velocity-area station with channel control; vigorous seasonal weedgrowth. All flows contained within steep banks. Station moved 300m u/s (from Killermont) in 1962. Forth and Clyde canal drains through the catchment. Some monthly naturalised flows available. * The main channel runs along the northern edge of the Central Lowlands taking tributaries from the faulted igneous block to the north - remainder of catchment is chiefly Carboniferous sediments and Drift. Mixed land use: moorland to urban concentrations.		1987	1237	101	780	101	8.29	77.0	27/03	1.55	27/05	19.7	4.86	2.09
		1988	1496	123	994	129	10.53	71.8	15/08	2.18	22/05	20.5	7.68	2.84
		1989	1222	100	696	90	7.40	68.4	24/03	1.07	29/05	16.6	5.03	1.26
		1990	1620	133	994	129	10.56	98.2	11/03	1.93	27/05	25.4	5.64	2.20
084003	**Clyde at Hazelbank** C.A: 1092.9 km²	**56..85**	**1168**		**735**		**25.48**	**530.3**	**31/10 1977**	**2.20**	**11/10 1959**	**57.1**	**15.90**	**5.31**
M.A: CRPB	Level: 52m Local Number:													
F.A.R: H	B.F.I: .51 Sensitivity: 5.5	1986	1416	121	1000	136	34.66	202.8	31/12	5.53	07/10	82.2	22.99	6.01
Comment: Velocity-area station in a straight section. Well calibrated. All flows contained. Very minor net impact of artificial influences (some naturalised data) but flow pattern is affected by operation of u/s HEP station (Stonebyres Falls). * Catchment drains from the Southern Uplands. Complex geology: Metamorphics/igneous/Drift. Hill grazing is principal land use; thinly populated but Lanark is 5km u/s.		1987	1148	98	822	112	28.48	281.7	19/10	6.41	28/05	57.0	20.78	8.26
		1988	1245	107	906	123	31.30	296.8	02/02	4.13	27/06	65.1	22.05	5.17
		1989	1103	94	726	99	25.18	216.2	24/03	2.69	22/07	52.9	16.76	3.40
		1990	1553	133	1144	156	39.64	380.2	07/10	5.78	05/08	99.0	20.16	7.17
084004	**Clyde at Sills** C.A: 741.8 km²	**57-85**	**1226**		**744**		**17.51**	**410.4**	**15/08 1966**	**1.51**	**27/08 1984**	**38.4**	**11.16**	**3.47**
M.A: CRPB	Level: 183m Local Number:													
F.A.R:	B.F.I: .52 Sensitivity: 5.9	1986	1492	122	1002	135	23.58	135.9	10/11	3.73	17/10	54.1	15.62	4.06
Comment: Transferred to Clyde RPB from SDD in July 1969. Sited on a 200m straight natural reach between two sharp opposing bends. Low flow control is a riffle 30m downstream. Section rated by current meter to 2.9m. Flows are straight at cableway but there is some turbulence. * Drains part of Southern Uplands, with several small storage reservoirs in headwaters. Geology - Silurian and Ordovician sedimentary rocks. Land use - rough grazing with increasing afforestation.		1987	1213	99	807	108	18.98	202.7	19/10	5.01	10/08	34.9	13.91	5.77
		1988	1308	107	849	114	19.93	215.7	02/02	2.90	28/06	41.8	14.17	3.60
		1989	1157	94										
		1990	1614	132	1073	144	25.23					63.7	12.50	4.76
084005	**Clyde at Blairston** C.A: 1704.2 km²	**58-85**	**1138**		**740**		**40.01**	**666.4**	**22/09 1985**	**3.37**	**23/08 1984**	**93.5**	**23.01**	**7.77**
M.A: CRPB	Level: 18m Local Number:													
F.A.R:	B.F.I: .45 Sensitivity: 6.9	1986	1377	121	981	133	53.02	375.9	31/12	7.71	24/07	133.1	30.16	8.65
Comment: Recorder moved to present position in Nov. 1974 from opposite bank. Section is natural with steep grass and tree covered banks. Velocity profile slightly uneven due to upstream bend. Control - piers of redundant rail bridge, 300m d/s. Section rated by current meter to 3.4m, just below max. recorded stage. Some naturalised flows available. * Very mixed geology with the older formations (Ordovician/Silurian) to the south. Hill pasture and moorland predominates but some mixed farming and urban development is found in the lower valley.		1987	1124	99	783	106	42.32	285.1	19/10	8.66	11/08	91.5	27.29	10.79
		1988	1221	107	882	119	47.55	337.4	02/02	6.46	04/07	105.7	31.96	7.91
		1989	1077	95	692	94	37.37	323.8	12/01	4.56	22/07	83.3	21.88	5.46
		1990	1527	134	1088	147	58.79	507.5	07/10	7.44	05/08	162.5	27.58	9.33
084007	**South Calder Wtr at Forgewood** C.A: 93.0 km²	**65..85**	**942**		**638**		**1.88**	**52.1**	**13/08 1966**	**0.29**	**30/11 1965**	**3.5**	**1.33**	**0.71**
M.A: CRPB	Level: 44m Local Number:													
F.A.R: EI	B.F.I: .61 Sensitivity: 7.3	1986	1075	114	765	120	2.25	30.3	31/12	0.51	28/09	4.7	1.59	0.67
Comment: Compound Crump profile weir (centre: 3.658m, flanks: 13.405m). Gradient sufficient to avoid drowning. All flows contained. Theoretical rating confirmed by gaugings. Flow pattern influenced by industrial abstractions and discharges - net import of water from the Clyde. * Relatively subdued topography developed on sedimentary formations of Carboniferous age (chiefly Coal Measures); extensive Drift. Land use: arable and pasture plus significant woodland and > 15% urban - the gauging station is located in Motherwell.		1987	947	101	749	117	2.21	18.3	16/08	0.84	09/08	4.3	1.60	0.99
		1988	951	101	726	114	2.13	15.3	19/04	0.93	07/08	4.1	1.60	1.03
		1989	808	86	652	102	1.92	18.4d	23/03	0.83	08/10	3.6	1.34	0.88
		1990	1198	127	864	135	2.55	**54.4**	**07/10**	0.87	14/09	4.9	1.52	1.02
084008	**Rotten Calder Wtr at Redlees** C.A: 51.3 km²	**66-85**	**1155**		**872**		**1.42**	**60.8**	**13/01 1984**	**0.07**	**11/08 1968**	**3.7**	**0.63**	**0.16**
M.A: CRPB	Level: 17m Local Number:													
F.A.R: E	B.F.I: .33 Sensitivity: 11.9	1986	1449	125	1226	141	1.99	34.1	03/12	0.19	19/07	6.0	0.86	0.24
Comment: Compound Crump profile weir (central crest: 1.83m, flanks: 4.88m). Theoretical rating confirmed by gaugings. River gradient obviates drowning. All flows contained. Runoff augmented by sewage and industrial effluent. * A mainly impervious catchment (Carboniferous deposits predominate; Drift cover). Moorland and hill pasture in the headwaters, some significant urban growth in the lower catchment (East Kilbride).		1987	1192	103	879	101	1.43	22.8	20/01	0.19	09/08	3.9	0.71	0.24
		1988	1327	115	1041	119	1.69	22.1	19/08	0.22	24/06	4.1	0.99	0.26
		1989	1214	105	931	107	1.51	30.9	12/01	0.17	22/07	3.7	0.73	0.22
		1990	1664	144	1384	159	2.25	53.7	07/10	0.24	07/08	5.7	0.91	0.27
084009	**Nethan at Kirkmuirhill** C.A: 66.0 km²	**66..85**	*1180*		**884**		**1.85**	**236.5d**	**03/02 1985**	**0.01**	**28/08 1967**	**3.7**	**0.72**	**0.16**
M.A: CRPB	Level: 122m Local Number:													
F.A.R: PN	B.F.I: .32 Sensitivity: 14.4	1986	1481	126										
Comment: Compound Crump profile weir (centre crest: 2.44m, flanks: 4.27m); significant accretion upstream of rh crest. Theoretical rating - confirmed by gaugings. Flows remain modular and are fully contained; the channel is deeply incised into rock. Runoff is diminished by PWS abstractions. * The Nethan drains from Nutberry Hill. Complex geology mostly Old Red Sandstone and Carboniferous Limestone with large areas of Drift cover; a mainly impervious catchment. Afforestation in the headwaters, hill pasture below.		1987	1164	99											
		1988	1330	113	806	91	1.68	28.8	10/02	0.16	30/06	4.0	1.09	0.19
		1989	1180	100	685	77	1.43	27.8	13/08	0.12	24/07	3.8	0.77	0.15
		1990	1638	139	1047	118	2.19	32.6	06/10	0.17	07/08	5.8	0.98	0.23

	Period	Rainfall (mm)	% of pre1986	Runoff (mm)	% of pre1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
084011 Gryfe at Craigend C.A: 71.0 km²	**63-85**	**1753**		**1545**		**3.48**	**106.5**	**27/11**	**0.09**	**01/07**	**9.1**	**1.63**	**0.25**
M.A: CRPB Level: 10m Local Number:								**1979**		**1974**			
F.A.R: S B.F.I: .31 Sensitivity: 29.6	1986	2230	127	2288	148	5.15	68.9	25/11	0.44	12/07	14.4	2.34	0.48
Comment: Velocity-area station with a curving broad-crested weir control (on a gentle bend). Cableway on site. Left bank overtopped at about 1.1m. Catchment includes a number of small lochs and reservoirs. Runoff is augmented by compensation flows and spillages from a neighbouring catchment (10 sq. km). Some naturalised flows. # A wet responsive catchment draining from Duchal Moor. The geology is dominated by basaltic lavas of Carboniferous age - some Drift also.	1987	1699	97	1514	98	3.41	48.8	27/03	0.39	10/08	9.1	1.81	0.55
	1988	2033	116	1935	125	4.35	58.7	26/10	0.26	28/06	10.5	2.76	0.34
	1989	1768	101	1659	107	3.74	48.0	20/03	0.18	20/07	9.8	1.86	0.27
	1990	2200	125	2392	155	5.39	83.4	25/12	0.20	07/08	13.1	3.01	0.39
084012 White Cart Water at Hawkhead C.A: 227.2 km²	**63-85**	**1235**		**903**		**6.51**	**187.1**	**18/12**	**0.32**	**26/08**	**16.6**	**3.15**	**0.94**
M.A: CRPB Level: 4m Local Number:								**1966**		**1984**			
F.A.R: S B.F.I: .35 Sensitivity: 3.9	1986	1549	125	1093	121	7.87	96.5	03/12	0.80	23/07	20.5	4.18	1.00
Comment: Velocity-area station in a straight reach of uniform cross-section. Rock bar control but weed growth causes low flow rating variations. Complex water utilisation; some naturalised flows available. # Carboniferous rocks (basalt in the headwaters) predominate; Drift and terrace deposits also. Much of the catchment is open pasture (with several small lochs) but the northern part is heavily urbanised (Glasgow).	1987	1259	102	835	92	6.02	86.0	27/03	0.57	10/08	16.1	3.14	0.85
	1988	1460	118	1038	115	7.46	87.3	10/02	0.51	25/06	18.4	4.71	0.70
	1989	1300	105	879	97	6.33	108.5	15/02	0.50	23/06	16.5	3.23	0.56
	1990	1755	142	1271	141	9.15	151.1	07/10	0.61	07/08	22.4	3.86	0.90
084013 Clyde at Daldowie C.A: 1903.1 km²	**63-85**	**1117**		**730**		**44.04**	**802.5**	**22/09**	**6.09**	**19/08**	**101.8**	**25.73**	**9.49**
M.A: CRPB Level: 8m Local Number:								**1985**		**1984**			
F.A.R: E B.F.I: .45 Sensitivity: 4.7	1986	1356	121	955	131	57.62	443.8	31/12	8.14	17/10	140.4	33.73	9.22
Comment: Velocity-area station; the lowest on the Clyde. Well calibrated. Some naturalised flows available. # Large catchment developed on a mixed geology - Ordovician (in the south) to Carboniferous with Drift cover below the headwaters. Hill pasture is the major land use; some mixed farming and urbanisation in the lower valley.	1987	1116	100	781	107	47.11	296.6	29/12	10.09	08/07	101.9	31.03	12.18
	1988	1213	109	885	121	53.28	356.1	02/02	7.47	24/06	120.9	37.14	8.71
	1989	1062	95	706	97	42.62	384.0	12/01	6.94	20/06	93.0	25.98	7.85
	1990	1505	135	1109	152	66.90	654.2	07/10	10.48	06/08	178.0	32.11	11.97
084014 Avon Water at Fairholm C.A: 265.5 km²	**64-85**	**1239**		**876**		**7.37**	**397.3**	**13/08**	**0.16**	**17/08**	**19.4**	**3.01**	**0.45**
M.A: CRPB Level: 54m Local Number:								**1966**		**1984**			
F.A.R: B.F.I: .26 Sensitivity: 15.3	1986	1525	123	1178	134	9.92	175.4	29/12	0.82	20/09	27.0	4.76	1.02
Comment: Velocity-area station in a very straight uniform reach. Rock platform below a bridge forms the control. All flows contained. Some naturalised flows. Two small reservoirs in the catchment but flow pattern remains responsive. # An impervious catchment - mostly ORS and Carboniferous formations. Hill grazing is the main land use.	1987	1237	100	845	96	7.11	116.0	27/12	0.72	09/07	20.1	3.05	0.88
	1988	1379	111	974	111	8.18	154.7	10/02	0.39	24/06	20.3	4.39	0.45
	1989	1198	97										
	1990	1698	137	1226	140	10.32	190.5	07/10	0.37	07/08	26.2	3.48	0.63
084015 Kelvin at Dryfield C.A: 235.4 km²	**60..85**	**1269**		**879**		**6.56**	**84.9**	**19/09**	**0.56**	**18/09**	**15.2**	**3.90**	**1.17**
M.A: CRPB Level: 31m Local Number:								**1985**		**1972**			
F.A.R: E B.F.I: .43 Sensitivity: 7.1	1986	1575	124	971	110	7.25	62.9	25/11	**0.34**	**25/09**	18.1	4.58	0.78
Comment: Recorder sited in straight even reach where erosion has made banks very steep. The river was canalised during last war and floodbanks made on both banks from dredged material. The section is affected by weed growth and requires constant attention. Rated by current meter measurements up to 2.97m. Cableway installed in 1960 so no high measurements prior to this date. # Catchment in the low lying central valley of Scotland. Geology - Millstone Grit and coal bearing rocks of Carboniferous age.	1987	1236	97	745	85	5.56	53.5	16/08	0.71	25/05	15.0	3.15	1.03
	1988	1492	118	976	111	7.27	61.3	14/08	1.03	22/05	15.9	5.42	1.33
	1989	1221	96	680	77	5.08	54.3	24/03	0.80	29/05	11.9	3.32	0.95
	1990	1629	128	1035	118	7.73	66.1	07/10	0.80	27/05	19.2	3.97	1.03
084016 Luggie Water at Condorrat C.A: 33.9 km²	**66..85**	**1057**		**783**		**0.84**	**44.5**	**11/09**	**0.06**	**08/08**	**1.9**	**0.46**	**0.13**
M.A: CRPB Level: 68m Local Number:								**1967**		**1967**			
F.A.R: B.F.I: .40 Sensitivity: 13.7	1986	1292	122	1020	130	1.10	30.7	31/12	0.15	15/10	2.7	0.54	0.18
Comment: Compound broad-crested weir - central low flow notch. Calibrated by current meter. Data prior to March 1968 is of poor quality. No controlled storages but significant local depressions and boggy areas. # Geology: mostly Coal Measures with intrusive basalt and substantial Drift. Much of the catchment is agricultural in character but urban development in the north has been rapid (Cumbernauld).	1987	1061	100	821	105	0.88	17.0	28/12	0.14	08/08	2.3	0.48	0.18
	1988	1268	120	898	115	0.96	22.1	19/08	0.15	24/06	2.2	0.60	0.18
	1989	992	94	611	78	0.66	10.5	24/03	0.13	23/07	1.5	0.36	0.17
	1990	1376	130	915	117	0.98	34.2	07/10	0.14	02/08	2.2	0.50	0.17
084017 Black Cart Water at Milliken Park C.A: 103.1 km²	**67-85**	**1687**		**1316**		**4.30**	**79.1**	**19/01**	**0.08**	**27/08**	**11.2**	**2.50**	**0.34**
M.A: CRPB Level: 25m Local Number:								**1974**		**1984**			
F.A.R: S B.F.I: .37 Sensitivity: 19.0	1986	2180	129	1908	145	6.24	39.5	26/11	0.20	28/02	16.7	3.68	0.54
Comment: Velocity-area station with informal (dished) concrete control, length: 26.52m. Very stable rating. Overtopping of the right bank can occur when stage exceeds 1m. Several lochs and reservoirs (e.g. Rowbanks) provide storage - the effect of regulation is evident in the hydrograph trace. Monthly naturalised flows available. # A wet, principally impervious catchment - Carboniferous, and earlier, series overlain by Drift. Rural.	1987	1741	103	1349	103	4.41	27.3	28/03	0.44	19/02	12.0	2.37	0.70
	1988	2042	121	1722	131	5.62	24.7	13/01	0.30	30/06	12.5	4.36	0.53
	1989	1731	103	1386	105	4.53	25.9	15/02	0.30	11/06	11.6	2.88	0.41
	1990	2257	134	1899	144	6.21	63.8	11/03	0.38	07/08	15.4	3.42	0.56
084018 Clyde at Tullford Mill C.A: 932.6 km²	**69-85**	**1202**		**805**		**23.80**	**558.6**	**31/10**	**1.48**	**27/08**	**54.0**	**15.05**	**3.45**
M.A: CRPB Level: 174m - Local Number:								**1977**		**1984**			
F.A.R: P B.F.I: .52 Sensitivity: 16.3	1986	1473	123	1110	138	32.83	196.4	31/12	2.97	01/12	78.1	20.67	6.37
Comment: Velocity-area station with a natural control. Banks overtopped at flows in excess of the mean annual flood. Catchment includes a number of PWS gathering grounds from which the yield is exported. Monthly naturalised flows available. # Mixed geology - ancient sedimentaries (ORS/Ordovician) dominate the headwaters; mostly igneous formations below. Substantial Drift cover. The catchment ranges in height from 180-800m. About one third is cultivated, the remainder is hill grazing and moorland.	1987	1188	99	835	104	24.70	269.7	19/10	5.67	28/05	49.6	17.59	6.40
	1988	1297	108	964	120	28.42	276.8	02/02	4.92	30/06	59.6	19.89	5.51
	1989	1143	95	762	95	22.53	190.6	24/03	4.40	25/07	47.9	14.27	4.78
	1990	1605	134	1147	142	33.93	302.9	07/10	5.86	05/08	86.2	17.60	6.34
084019 North Calder Wtr at Calderpark C.A: 129.8 km²	**63-85**	**974**		**554**		**2.28**	**71.0d**	**05/05**	**0.30**	**23/09**	**4.9**	**1.43**	**0.52**
M.A: CRPB Level: 13m Local Number:								**1968**		**1963**			
F.A.R: RP B.F.I: .49 Sensitivity: 8.5	1986			673	121	2.77	25.8	31/12	0.64	02/07	6.3	1.79	0.69
Comment: Recorder sited on U-shaped bend so velocity profile is not symmetrical. Outer bank is a steep cliff being undercut by river. The inner bank is quite steep. Rated by current meter to 1.12m. Monkland Canal drains through catchment. # Lies in Scottish central lowlands east of Glasgow. Contains several small storage lochs. Geology - Sedimentary rocks of Carboniferous age.	1987			586	106	2.41	22.9	28/12	0.50	08/08	5.6	1.52	0.60
	1988			686	124	2.82	25.3	19/04	0.64	24/06	5.9	2.01	0.72
	1989			527	95	2.17	31.9	24/03	0.54	10/10	4.5	1.26	0.62
	1990			848	153	3.49	**91.2**	**07/10**	0.63	25/07	8.2	1.84	0.74
084020 Glazert Water at Milton of Campsie C.A: 51.9 km²	**68..85**	**1565**		**1149**		**1.89**	**76.0**	**30/09**	**0.06**	**26/08**	**4.7**	**0.95**	**0.16**
M.A: CRPB Level: 39m Local Number:								**1977**		**1984**			
F.A.R: E B.F.I: .31 Sensitivity:	1986	2009	128	1520	132	2.50	54.1	10/01	0.15	23/07	6.6	1.22	0.20
Comment: Velocity-area station; broad-crested weir with rectangular low flow notch acts as the control (gaugings confirm the theoretical rating but significant structure erosion evident - especially following the 1990 spates; reconstruction scheduled). No significant lochs or storages. Some (1970s) naturalised flows available. # An upland catchment draining the Campsie Fells. Geology: Carboniferous series (principally the Scottish Carb. Limestone) predominate - overlain by Drift. Very thinly populated. A small area is given over to forestry.	1987	1462	93	1070	93	1.76	45.1	16/08	0.12	09/08	4.8	0.85	0.21
	1988	1785	114	1414	123	2.32	53.6	26/12	0.10	28/06	5.5	1.43	0.15
	1989	1531	98	1107	96	1.82	41.8	24/03	0.09	18/07	4.5	0.95	0.12
	1990	1914	122	1602	139	2.64	56.7	07/10	0.15	27/05	6.5	1.09	0.19
084022 Duneaton at Maidencots C.A: 110.3 km²	**66..85**	**1353**		**809**		**2.83**	**114.3**	**31/10**	**0.13**	**26/07**	**6.7**	**1.80**	**0.42**
M.A: CRPB Level: 228m Local Number:								**1977**		**1984**			
F.A.R: B.F.I: .44 Sensitivity: 14.8	1986	1662	123	1109	137	3.88	43.6	05/03	0.42	05/10	9.6	2.26	0.49
Comment: Velocity-area station with a ragged rock bar control - considered to be stable and sensitive. Bypassing is unlikely. No significant storages or (currently) abstractions. Some early flow data available from 1965. # An upland catchment developed mainly on Drift overlying ORS (and older) formations. Some forestry.	1987	1285	95	892	110	3.12	55.4	18/10	0.62	08/07	6.6	2.03	0.80
	1988	1475	109	1064	132	3.71	**116.2**	**02/02**	0.39	25/06	8.1	2.22	0.51
	1989	1292	95										
	1990	1783	132	1153	143	4.03	93.8	26/12	0.49	11/08	11.2	1.81	0.60

	Period	Rainfall (mm)	% of pre1986	Runoff (mm)	% of pre1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
084023 **Bothlin Burn at Auchengeich** C.A: 35.7 km²	**73..85**	**1011**		**689**		**0.78**	**13.1**	**19/09 1985**	**0.10**	**19/07 1984**	**1.8**	**0.48**	**0.16**
M.A: CRPB Level: 57m Local Number:													
F.A.R: E B.F.I: .50 Sensitivity:	1986	1175	116	769	112	0.87	9.4	05/12	0.10	23/07	2.1	0.53	0.15
Comment: Crump profile weir. Theoretically rated. Flow contained over the full range. Sensibly natural regime but motorway (M73) runoff and STW effluent may influence flow pattern. # A small undulating catchment, containing three old mining villages, developed on Scottish Carboniferous Limestone (overlain with Drift).	1987	1009	100	655	95	0.74	9.0	16/08	0.12	10/08	1.7	0.51	0.16
	1988	1193	118	742	108	0.84	10.5	14/08	0.11	28/06	1.7	0.61	0.13
	1989	919	91	489	71	0.55	5.6	24/03	**0.08**	**20/07**	1.3	0.32	0.11
	1990	1277	126	812	118	0.92	**13.3**	**07/10**	0.13	26/07	2.3	0.51	0.16
084024 **North Calder Wtr at Hillend** C.A: 19.9 km²	**72..85**	**1042**		**493**		**0.31**	**2.4**	**05/02 1984**	**0.04**	**06/03 1985**	**0.7**	**0.18**	**0.11**
M.A: CRPB Level: 168m Local Number:													
F.A.R: S B.F.I: .66 Sensitivity:	1986			695	141	0.44	1.7	14/05	0.06	23/05	1.0	0.29	0.12
Comment: Flat V fibre-glass Crump. Susceptible to minor weed growth in summer. Structure drowns at highest flows. Artificial flow regime - d/s of Hillend Reservoir. # Geology is predominantly Coal Measures with some quartz-dolerite intrusions.	1987			575	117	0.36	1.7	27/10	**0.02**	**22/04**	1.2	0.24	0.16
	1988			606	123	0.38	1.5	02/04			1.0	0.20	0.10
	1989			440	89	0.28	2.1	24/03	0.10	07/04	0.7	0.17	0.11
	1990			661	134	0.42	**2.9**	**07/10**	0.01	11/12	1.1	0.22	0.11
084025 **Luggie Water at Oxgang** C.A: 87.7 km²	**75..85**	**1071**		**838**		**2.33**	**64.8**	**19/09 1985**	**0.12**	**26/07 1984**	**5.5**	**1.18**	**0.30**
M.A: CRPB Level: 38m Local Number:													
F.A.R: E B.F.I: .43 Sensitivity:	1986	1249	117	1175	140	3.27	35.8	31/12	0.54	23/07	7.6	1.91	0.69
Comment: Velocity-area station with Flat V control. Most flows contained but floods can spill. # Mixed land use (agricultural and some urban) developed mostly on Coal Measures, with some basalt and dolerite intrusions; substantial Drift cover.	1987	1050	98	952	114	2.65	28.7	16/08	0.41	21/05	6.2	1.72	0.53
	1988	1242	116	954	114	2.64	26.2	15/08	0.39	30/06	5.6	1.85	0.49
	1989	962	90	636	76	1.77	20.3	24/03	0.26	24/07	4.1	1.04	0.35
	1990	1345	126	992	118	2.76	48.1	07/10	0.36	02/08	6.2	1.49	0.49
084026 **Allander Water at Milngavie** C.A: 32.8 km²	**74..85**			**1245**		**1.30**	**45.5**	**11/09 1978**	**0.01**	**14/07 1977**	**3.2**	**0.63**	**0.09**
M.A: CRPB Level: 33m Local Number:													
F.A.R: S B.F.I: .35 Sensitivity:	1986	1725		1454	117	1.51	35.1	25/11	0.07	17/09	3.7	0.76	0.15
Comment: Velocity-area station with Flat V low flow control (installed 1973). The catchment contains a number of natural and artificial storages but the flow regime remains responsive. # Hilly catchment developed mostly on Carboniferous formations (basaltic lava and Scottish Carb. Limestone predominate); some Drift. Upland grazing is the main land use; some afforestation and also urban development (Milngavie) near the outfall.	1987	1387		1136	91	1.18	25.2	27/03	0.12	25/07	2.9	0.60	0.16
	1988	1722		1512	121	1.57	38.4	13/08	0.13	28/06	3.2	1.14	0.20
	1989	1411		968	78	1.01	18.3	24/03	0.08	20/07	2.5	0.59	0.12
	1990	1844		1555	125	1.62	**49.8**	**11/03**	0.10	06/08	3.7	0.82	0.15
084027 **North Calder Wtr at Calderbank** C.A: 60.6 km²	**68..85**	*955*		**284**		**0.55**	**19.5**	**19/09 1985**	**0.00**	**01/07 1985**	**0.9**	**0.34**	**0.02**
M.A: CRPB Level: m Local Number:													
F.A.R: S B.F.I: .36 Sensitivity:	1986												
Comment: Fibre-glass flume for low flows, broad-crested control for higher flows. High flow calibration is poorly defined. Artificial influences significantly disturb the flow regime. # Rural headwaters (but reservoired), largely urban in lower catchment. Geology: principally Coal Measures.	1987												
	1988			668	235	1.28	11.3	19/04	0.00	16/06	4.4	0.52	0.02
	1989			492	173	0.95	12.5	24/03	0.00	19/06	3.8	0.23	
	1990												
084029 **Cander Water at Candermill** C.A: 24.5 km²	**75-85**			**705**		**0.55**	**60.9**	**31/10 1977**	**0.00**	**13/08 1983**	**1.4**	**0.21**	**0.04**
M.A: CRPB Level: m Local Number:													
F.A.R: B.F.I: .29 Sensitivity: 34.3	1986	1266		862	122	0.67	14.9	04/12	0.05	14/10	1.9	0.29	0.07
Comment: A non-standard Flat V broad-crested weir with no wing walls; current meter calibration. Flood flows spill onto the banks. High flow rating under review following road works involving the right bank. Responsive flow regime. # A small rural catchment developed on the productive Coal Measures (overlain by Drift).	1987	1012		583	83	0.45	9.4	28/12	0.05	10/06	1.1	0.21	0.07
	1988	1095		688	98	0.53	14.9	10/02	0.04	24/06	1.3	0.27	0.05
	1989	989											
	1990	1390		1036	147	0.81	21.6	31/12	0.05	07/08	2.5	0.25	0.07
084030 **White Cart Water at Overlee** C.A: 111.8 km²	81-85			1050		3.72	152.7	31/12 1983	0.21	20/08 1984	10.4	1.59	0.34
M.A: CRPB Level: m Local Number:													
F.A.R: S B.F.I: .33 Sensitivity:	1986	1625		1199	114	4.25	81.3	03/12	0.41	22/07	11.4	2.14	0.49
Comment: Rectangular thin-plate low flow notch in a broad-crested (V cross-section) weir. Confirmatory gaugings not yet available for the full flow range. Good fall below weir - thus flows remain modular. There are several reservoirs and lochs within the catchment. # The catchment geology comprises mostly basaltic lava overlain with Drift. A small area near the outlet drains the suburbs of Glasgow but the catchment is principally upland moorland.	1987	1326		912	87	3.23	64.8	22/10	0.36	08/08	9.1	1.35	0.56
	1988	1497		1065	101	3.77	63.6	10/02	0.38	30/06	8.7	2.34	0.45
	1989	1330											
	1990	1811		1277	122	4.53	135.9	06/10	0.58	06/08	11.0	1.82	0.64
085001 **Leven at Linnbrane** C.A: 784.3 km²	**63-85**	*2033*		**1638**		**40.73**	**150.5**	**31/01 1974**	**3.31**	**29/08 1984**	**78.8**	**37.40**	**8.21**
M.A: CRPB Level: 4m Local Number:													
F.A.R: S B.F.I: .77 Sensitivity: 3.9	1986	2593	128	2122	130	52.78	148.5	06/12	6.55	18/02	115.9	50.67	7.96
Comment: Velocity-area station with channel control at the outflow from Loch Lomond. Stable rating but erosion caused by major floods in 1990 necessitated recalibration. Natural regime until loch outfall control weir built in 1971, now substantially regulated. Some naturalised flows available. # A large, wet, upland catchment. The geology is dominated by ancient metamorphic formations - overlain by Drift in the west of the catchment.	1987	1859	91	1485	91	36.94	117.2	02/01	7.22	28/04	64.9	40.89	8.19
	1988	2348	115	2067	126	51.28	120.2	14/01	7.02	05/07	84.5	53.32	8.57
	1989	2205	108	1791	109	44.54	128.2	08/02	7.06	05/12	96.0	40.46	8.07
	1990	2710	133	2174	133	54.06	**196.8**	**11/03**	7.81	20/08	128.2	44.54	8.87
085002 **Endrick Water at Gaidrew** C.A: 219.9 km²	**63..85**	**1433**		**996**		**6.94**	**142.4**	**30/09 1985**	**0.28**	**20/06 1970**	**18.0**	**3.14**	**0.59**
M.A: CRPB Level: 9m Local Number:													
F.A.R: P B.F.I: .31 Sensitivity: 10.0	1986	1800	126	1324	133	9.23	130.7	26/11	0.62	23/07	24.2	4.49	0.70
Comment: Velocity-area station with channel control. Low and medium flows considered reliable but flood discharges are of a lesser accuracy (due to overspill on to the left bank floodplain and a curved approach to the measuring reach). Runoff is diminished by the export of water from the Carron Res. into the Forth system. Some naturalised flows available. # An upland catchment, draining from the Campsie Fells, developed on ORS overlain with Drift; large tracts of sand and gravel also.	1987	1350	94	888	89	6.19	114.9	27/03	0.45	10/08	17.6	2.76	0.69
	1988	1723	120	1208	121	8.40	110.3	26/10	0.41	30/06	19.6	4.72	0.54
	1989	1516	106	992	100	6.92	104.7	24/03	0.37	07/08	18.7	2.72	0.49
	1990	1897	132	1236	124	8.62	127.6	07/10	0.44	02/08	24.7	3.89	0.57
085003 **Falloch at Glen Falloch** C.A: 80.3 km²	**70..85**	**2859**		**2104**		**5.36**	**226.7**	**22/10 1971**	**0.03**	**12/07 1977**	**14.9**	**2.04**	**0.21**
M.A: CRPB Level: 10m Local Number:													
F.A.R: B.F.I: .17 Sensitivity:	1986	3645	127	2750	131	7.00	213.1	14/08	0.16	02/07	19.6	2.62	0.31
Comment: Velocity-area station with artificial low flow control (long broad-crested weir with rectangular low flow notch) - installed 1975. Damage to part of the high flow crest results in a small discharge bypassing the central notch. All but very high flows contained. No significant abstractions or discharges. Very responsive flow regime. # A very wet mountainous catchment developed on ancient metamorphic formations - some Drift cover.	1987	2407	84	1860	88	4.74	155.8	16/08	0.29	28/05	14.5	1.57	0.41
	1988	3130	109	2361	112	5.99	198.4	26/10	0.21	28/06	15.5	2.83	0.34
	1989	3174	111	2389	114	6.08					16.3	2.28	0.27
	1990	3948	138	3035	144	7.73	200.4	11/03	0.26	26/07	21.0	2.92	0.40
085004 **Luss Water at Luss** C.A: 35.3 km²	**76..85**			**2351**		**2.63**	**82.2**	**16/11 1978**	**0.06**	**16/07 1978**	**6.7**	**1.44**	**0.15**
M.A: CRPB Level: m Local Number:													
F.A.R: N B.F.I: .29 Sensitivity:	1986	3096		2946	125	3.30	**107.7**	**10/01**	0.16	17/09	8.2	1.61	0.21
Comment: Velocity-area with low flow control (broad-crested weir with low flow notch, slight damage to structure repaired in 1992). Natural flow regime. # A very wet, mountainous catchment developed mainly on Dalradian schists - overlain, in parts, by Drift.	1987	2212		2178	93	2.44	**111.8**	**20/08**	0.14	10/08	6.5	1.09	0.24
	1988	2701		2672	114	2.98	48.1	02/09	0.14	28/06	7.4	1.89	0.22
	1989	2483		2354	100	2.64	34.2	20/09	0.10	24/07	6.7	1.40	0.17
	1990	3157		2640	112	2.96	45.9	03/10	0.21	26/07	7.4	1.88	0.31

		Period	Rainfall (mm)	% of pre1986	Runoff (mm)	% of pre1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
086001	**Little Eachaig at Dalinlongart** C.A: 30.8 km²	**68-85**	*2251*		**1657**		**1.62**	**91.2**	**03/11 1979**	**0.01**	**14/07 1977**	**4.3**	**0.73**	**0.07**
M.A: CRPB	Level: 10m Local Number:													
F.A.R: I	B.F.I: .22 Sensitivity: 22.5	1986	3135	139	2170	131	2.12	53.1	10/01	0.06	01/03	6.0	0.91	0.10
Comment: Velocity-area station with compound artificial control (low flow notch, broad-crested flanks). Cableway on site. Flood flows contained. Natural flow regime but catchwaters divert a small runoff volume to Loch Tarsan. Very responsive flow pattern. # A compact, steep, mountainous catchment - very wet - developed on ancient metamorphic formations; some Drift.		1987	2307	102										
		1988	2710	120	2007	121	1.95	37.0	12/01	0.04	28/06	5.4	1.04	0.09
		1989	2442	108										
		1990	3149	140	2205	133	2.15	54.9	07/06	0.07	26/07	5.7	1.06	0.13
086002	**Eachaig at Eckford** C.A: 139.9 km²	**68..85**	**2341**		**2138**		**9.49**	**95.4**	**11/09 1978**	**0.24**	**29/06 1977**	**23.2**	**5.92**	**0.69**
M.A: CRPB	Level: 6m Local Number:													
F.A.R: SP	B.F.I: .35 Sensitivity: 14.3	1986	3408	146	2858	134	12.68	83.9	27/10	0.62	17/02	33.5	7.73	0.75
Comment: Velocity-area station with riffle control. The rating is stable and well defined. All but major floods are contained within the channel. The catchment contains Loch Eck, a major PWS reservoir. Some naturalised flows available. # A very wet, steep-sided, mountainous catchment developed on ancient metamorphic formations - some overlying Drift.		1987	2403	103	1991	93	8.83	74.2	16/08	1.05	27/05	23.9	4.35	1.25
		1988	2931	125	2579	121	11.41	87.7	13/01	0.43	04/11	26.4	8.01	0.75
		1989	2806	120										
		1990	3550	152	4131	193	18.32					39.8	12.82	4.69
089008	**Eas Daimh at Eas Daimh** C.A: 4.5 km²	81..85			3027		0.43	8.0	21/08 1985	0.00	26/08 1984	1.0	0.23	0.03
M.A: CRPB	Level: m Local Number: 161													
F.A.R: N	B.F.I: .29 Sensitivity:	1986	3660											
Comment: Crump weir. Good low flow calibration, access problems present difficulties in establishing rating for higher flows; accuracy at high flows is considered poor. Natural regime - no abstractions or loch storage (but snow pack storage can be considerable). # A wet, mountainous catchment developed largely on Dalradian metamorphics (mainly schists, some slate and phyllite).		1987	2451		2863	95	0.41	8.3	20/08	0.04	25/07	1.1	0.21	0.06
		1988	3119											
		1989	3155		3256	108	0.46	8.7	20/09	0.02	23/06	1.1	0.25	0.04
		1990	4118		3864	128	0.55	8.5	19/09	0.03	27/05	1.4	0.30	0.05
089009	**Eas ÀGhaill at Succoth** C.A: 9.7 km²	81..85			2357		0.73	19.9	27/12 1983	0.00	02/11 1985	2.0	0.34	0.04
M.A: CRPB	Level: m Local Number: 163													
F.A.R: N	B.F.I: .20 Sensitivity:	1986	3196		2876	122	0.88					2.2	0.47	0.05
Comment: Crump weir. Calibration is good at low flows but poor at high. All flows contained - weir is sited in a narrow ravine. No abstractions or storage (with the exception of seasonal snow cover). # A wet, mountainous catchment developed on metamorphic formations - mainly Dalradian schists with some phyllite and slate.		1987	2214		1993	85	0.61	17.9	21/08	0.02	25/02	1.8	0.27	0.06
		1988	2859		2546	108	0.78	14.5	26/07	0.03	29/06	1.9	0.42	0.05
		1989	2858		2364	100	0.73	17.5	20/09	0.02	24/07	1.9	0.35	0.04
		1990	3499		2827	120	0.87	21.9	10/03	0.01	26/07	2.3	0.35	0.04

Summary of Archived Data - 1

Gauged daily flows, monthly peaks and monthly rainfall

Stn. number	Gauged daily flows, monthly peaks and rainfall			
077002	60s	-†FCCBAAAA	70s	AAAAAAAAAA
	80s	AAAAAAAAAA	90s	AAe
077003	70s	---DAAAAAA	80s	AAAAAAAAAA
	90s	AAe		
077004	70s	---------d	80s	aAAAAAAAAA
	90s	AAe		
078001	50s	--------eA	60s	AE†††-----
	70s	††††††----	80s	------††††
	90s	††		
078003	60s	-††††††DAA	70s	AAAAAAAAAA
	80s	AAAAAAAAAA	90s	AAe
078004	60s	-††EBEEAAA	70s	AAAAAAAAAA
	80s	AAAAAAAAAA	90s	AAe
078005	70s	---------A	80s	AAAAAAAAAA
	90s	AAe		
078006	80s	---eaaAAAA	90s	AAe
079001	60s	-††††EBBEF	70s	FFCCCFCCcc
	80s	cf		
079002	50s	-------eAA	60s	AAAAAAAAAA
	70s	AAAAAAAAAA	80s	AAAAAAAAAA
	90s	AAe		
079003	50s	---------e	60s	AAAAAAAAAA
	70s	AAAAAAAAAA	80s	AAAAAAAAAA
	90s	AAe		
079004	60s	-††FCBAAAA	70s	AAAAAAAAAA
	80s	AAAAAAAAAA	90s	AAe
079005	60s	-††EAAAAAA	70s	AAAAAAAAAA
	80s	AAAAAAAAAA	90s	AAe
079006	60s	-††††††EAA	70s	AAAAAAAAAA
	80s	AAAAAAAAAA	90s	AAe
080001	60s	-††EAAAAAA	70s	AAAAAAAAAA
	80s	AAAAAAAAAA	90s	AAe
080002	70s	-------dAA	80s	AAAAAAAAAA
	90s	AAe		
080003	80s	daaaaaABAA	90s	AAe
080004	80s	--eaaa††AA	90s	AAe
080005	80s	---eaa††AA	90s	AAe
080006	80s	---aaa--Aa	90s	AAe
081001	60s	-----eBBe-	70s	-------†††
081002	60s	-††EAAAAAA	70s	AAAAAAAAAA
	80s	AAAAAAAAAA	90s	AAe
081003	60s	-††††††AAA	70s	AAAAAAAAAA
	80s	AAAAAAAAAA	90s	AAe
081004	70s	-------dAA	80s	AAAAAAAAAA
	90s	AAe		
081005	80s	-----eAAAA	90s	AAe
081006	80s	------EAAA	90s	AAe
081007	80s	--------ea	90s	AAe

Stn. number	Gauged daily flows, monthly peaks and rainfall			
082001	60s	-††EAAAAAA	70s	AAAAAAAAAA
	80s	AAAAAAAAAD	90s	AAe
082002	70s	---†EAAAAA	80s	AAAAAAAAAA
	90s	AAe		
082003	70s	---AAAEEAA	80s	AAAAAAAAAD
	90s	AAe		
083002	60s	---eAAAAaa	70s	AAAAAAAe--
	80s	-------†††	90s	††
083003	60s	-†††††††††-	70s	EAAAAAAAAA
	80s	AAAAAAAAAA	90s	AAe
083004	70s	-†EAAAAAAA	80s	AAAAAAAAAD
	90s	AAe		
083005	70s	--EAAAAAAA	80s	AAAAADAAAA
	90s	DAe		
083006	70s	------edab	80s	aaaaaaAAAA
	90s	AAe		
083007	70s	-------eaa	80s	aaaaaaAAAA
	90s	DDe		
083008	80s	eaaaaaaeeB	90s	ADe
083009	70s	--------aa	80s	aaaaaaAABA
	90s	AAe		
083010	70s	-------eae	80s	aaaaaaAAAA
	90s	AAe		
084001	40s	--------eE	50s	EEEBBBBEEB
	60s	AAAAAAAAAA	70s	AAAAAAAAAA
	80s	AAAAAAAAAB	90s	AAe
084002	50s	--eA†EAEEE	60s	AAEEAEEEFC
	70s	AAEEEEE†††	80s	†††††††††
	90s	††		
084003	50s	-------eBDA	60s	AAAAAAAAAA
	70s	AAAAAAAAAA	80s	AAAAAAAAAA
	90s	AAe		
084004	50s	-------eAA	60s	AAAAAAAAAA
	70s	AAAAAAAAAA	80s	AAAAAAAAAD
	90s	DAe		
084005	50s	--------eA	60s	AAAAAAAAAA
	70s	AAAAAAAAAA	80s	AAAAAAAAAA
	90s	AAe		
084006	60s	-††EAAAAAA	70s	AAAAAAAEAA
	80s	AAAE††††††	90s	††
084007	60s	-----eEAAA	70s	AAAAAAABBA
	80s	AAAAAABAAB	90s	ADe
084008	60s	-------eAAA	70s	AAAAAAAAAA
	80s	AAAAAAAAAA	90s	AAe
084009	60s	-------eAAA	70s	AAAAAAAAAA
	80s	AAAE†E†EAA	90s	AAe
084011	60s	---eAAAAAA	70s	AAAAAAAAAA
	80s	AAAAAAAAAB	90s	AAe
084012	60s	-††EAAAAAA	70s	AAAAAAAAAA
	80s	AAAAAAAAAB	90s	AAe

Stn. number	Gauged daily flows, monthly peaks and rainfall			
084013	60s	---eAAAAAA	70s	AAAAAAAAAA
	80s	AAAAAAAAAA	90s	ADe
084014	60s	----eAAAAA	70s	AAAAAAAAAA
	80s	AAAAAAAAAE	90s	AAe
084015	60s	e††††EAAAA	70s	AAAAAAAEAA
	80s	AAAAAAAAAA	90s	ADe
084016	60s	-†††††EEDA	70s	AAAAABBAAA
	80s	AAAAAAAAAA	90s	AAe
084017	60s	-------EAA	70s	AAAAAAAAAA
	80s	AAAAAAAAAA	90s	AAe
084018	60s	---------A	70s	AAAAAAAAAA
	80s	AAAAAAAAAA	90s	AAe
084019	60s	---AAAAAAA	70s	AAAAAAAAAA
	80s	AAAAAAaaaa	90s	aae
084020	60s	---------eE	70s	ADAAADAEAE
	80s	AAAAAAAAAA	90s	ABe
084021	60s	---------E	70s	AAEFF†††††
084022	60s	-------eEEE	70s	EEEAAEAAEA
	80s	AAAAAABAAD	90s	ADe
084023	70s	---EAAAAEA	80s	AAAAAAAAAA
	90s	AAe		
084024	70s	--eAAAAAAE	80s	AAEAAAaaba
	90s	bde		
084025	70s	---††AAAAE	80s	AAAAAAAAAA
	90s	ADe		
084026	70s	----eaabae	80s	aaaaaaAAAA
	90s	AAe		
084027	60s	--------ea	70s	eaaEAEEDE†
	80s	-----eeeaa	90s	ede
084029	70s	-----eaaaa	80s	aaaaaaAAAE
	90s	AAe		
084030	80s	-eaaaaAAAD	90s	ADe
085001	60s	---eAAAAAA	70s	AAAAAAAAAA
	80s	AAAAAAAAAA	90s	AAe
085002	60s	-††EAAAAAA	70s	AAAAAAAAAA
	80s	AAAAAEAAAA	90s	AAe
085003	60s	-†††††††††-	70s	EAAAAEAAEE
	80s	AAAAAAAAAD	90s	AAe
085004	70s	------aaaa	80s	aaae-eAAAA
	90s	AAe		
086001	60s	--------eA	70s	AAAAAABBBB
	80s	AAAAABAEAD	90s	ADe
086002	60s	-†††††††EE	70s	AAAAABBAAA
	80s	AAAAAAAAAE	90s	DAe
089008	80s	-eeaaeEAEB	90s	AEe
089009	80s	-eeaaeEAAA	90s	AAe
090002	70s	-------eaa	80s	ae-------†
	90s	††		

Summary of Archived Data – 2

Naturalised daily and monthly flows

Stn. number	Naturalised daily, and monthly flows			
077002	60s	——FEE	70s	EF
078004	70s	F		
079002	50s	——F	60s	EEEFFEEEEE
	70s	EF		
079003	50s	——F	60s	EEEEEEEEEE
	70s	EEF		
079006	60s	——FEE	70s	EF
081003	60s	——FE	70s	FF
082001	60s	—FEEEEEE	70s	EF
084001	70s	FEEEF		
084002	60s	——FE	70s	EEFFF
084003	60s	----FEEEE	70s	EEEEF
084004	50s	-----FEE	60s	EEEEEEEEEE
	70s	FFEEF		
084005	50s	——FE	60s	EEEEEEEEEE
	70s	EEEEEF		
084006	70s	FEEEF		
084007	60s	——FEE	70s	FEEEF
084008	60s	——FEE	70s	FEEEF
084009	60s	——FFF	70s	EEEEF
084011	60s	---FEEEEE	70s	EEEEF
084012	60s	--FEEEEEE	70s	EEEEF
084013	60s	-----FEE	70s	EEEEF
084014	60s	---FEEEEE	70s	EEEEF
084015	70s	FEEEF		
084016	70s	FEEEF		
084017	60s	-----FEE	70s	EEEEF
084018	60s	-------F	70s	EEEEF
084019	60s	-------FE	70s	EEFFF
084020	70s	FEEEF		
084021	70s	FEF		
084022	70s	--FF		
084023	70s	--FF		
084024	70s	--FF		
084027	70s	--FF		
085001	60s	--FEEEEEE	70s	EEEEF
085002	60s	-----FEE	70s	EEEEF
085003	70s	FEEEF		
086001	70s	FEEEF		
086002	70s	FEEEF		

Gauged daily flows, monthly peaks and monthly rainfall

KEY:

	Complete rainfall	Incomplete or missing rainfall
Complete daily and complete peaks	A	a
Complete daily and partial peaks	B	b
Complete daily and no peaks	C	c
Partial daily and complete peaks	D	d
Partial daily and partial peaks	E	e
Partial daily and no peaks	F	f
No flow data	†	-

Naturalised daily and monthly flows

KEY:

Complete daily and complete monthly	A
Partial daily and complete monthly	B
Partial daily and partial monthly	C
Partial daily and no monthly	D
No daily and complete monthly	E
No daily and partial monthly	F
No naturalised flow data	-

Up-to-date Summaries of Archived Data are available on request from the National Water Archive Office.

NORTHUMBRIA/YORKSHIRE REGION

Area: 22,777 km²

Average Rainfall (1961–90): 834mm

Gauging Station Register

Station number	River name	Station name	Grid reference	Catchment area (sq km)	Station type	Period of record	Mean ann. rainfall (mm)	Mean ann. runoff (mm)	Mean ann. loss (mm)	Max. ann. runoff (mm)	Year of max.	Min. ann. runoff (mm)	Year of min.	Mean flow (m^3s^{-1})	Min. mon. flow (m^3s^{-1})	Month/Year of min.	Mean ann. flood (m^3s^{-1})	10 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
021031 *	Till	Etal	NT 927396	648.0	VA	1956..80	811	412	399	616	63	129	73	8.47	1.03	08/76	86.7	17.1	1.43
021032	Glen	Kirknewton	NT 919310	198.9	FVVA	1966..90	852	450	402	603	79	178	73	2.84	**0.23**	**08/90**	45.8	6.0	0.43
022001	Coquet	Morwick	NU 234044	569.8	VA	1963..90	867	472	395	630	69	206	73	8.52	1.08	10/72	144.4	18.5	1.30
022002 *	Coquet	Bygate	NT 870083	59.5	MIS	1957..80	983	637	346	889	63	352	73	1.20	0.12	09/59	25.5	2.5	0.20
022003 *	Usway Burn	Shillmoor	NT 886077	21.4	TP	1957..80	1036	812	224	1226	79	447	73	0.55	0.05	09/59	17.4	1.3	0.09
022004 *	Aln	Hawkhill	NU 211129	205.0	VA	1966..80	744	370	374	571	69	119	73	2.40	0.38	07/76	67.3	4.5	0.46
022006	Blyth	Hartford Bridge	NZ 243800	269.4	FV	1966..90	699	244	455	399	69	63	73	2.09	0.07	08/76	64.7	4.8	0.12
022007	Wansbeck	Mitford	NZ 175858	287.3	MIS	1968–90	794	351	443	515	69	133	73	3.19	0.13	08/76	122.6	6.9	0.21
022008 *	Alwin	Clennell	NT 925063	27.7	FV	1969–83	953	641	312	1137	70	312	73	0.56	0.06	08/76	14.0	1.2	0.08
022009	Coquet	Rothbury	NU 067016	346.0	VA	1972–90	895	511	384	741	79	**263**	**89**	5.60	**0.57**	**08/90**	119.7	11.8	0.80
023001	Tyne	Bywell	NZ 038617	2175.6	VA	1956..90	1035	639	396	925	65	375	73	44.06	3.41	08/76	975.6	100.9	5.73
023002	Derwent	Eddys Bridge	NZ 041508	118.0	BCFL	1954..90	953	311	642	742	60	**95**	**89**	1.16	**0.11**	**10/89**	27.2	2.4	0.25
023003	North Tyne	Reaverhill	NY 906732	1007.5	VA	1959..90	1062	630	432	883	65	354	73	20.14	1.36	08/76	419.4	47.6	2.29
023004	South Tyne	Haydon Bridge	NY 856647	751.1	VA	1962..90	1169	748	421	997	67	490	73	17.81	1.51	08/76	365.1	42.2	2.12
023005	North Tyne	Tarset	NY 776861	284.9	VA	1963–87	1254	886	368	1220	85	537	81	8.01	0.60	08/76	202.1	19.1	0.90
023006	South Tyne	Featherstone	NY 672611	321.9	CC	1966..90	1361	1036	325	1265	79	747	71	10.57	0.96	08/76	245.1	25.2	1.36
023007	Derwent	Rowlands Gill	NZ 168581	242.1	CC	1962..90	842	339	503	726	65	146	73	2.60	0.63	09/79	45.1	5.3	0.80
023008	Rede	Rede Bridge	NY 868832	343.8	FVVA	1968..90	939	533	406	766	79	251	73	5.81	0.47	08/76	159.1	13.9	0.61
023009	South Tyne	Alston	NY 716465	118.5	VA	1969..90	1437	1051	386	1272	77	864	71	3.95	0.32	08/76	125.1	9.6	0.40
023010 *	Tarset Burn	Greenhaugh	NY 789879	96.0	VA	1970–80	926	575	351	852	79	366	73	1.75	0.12	08/76	59.6	4.3	0.14
023011	Kielder Burn	Kielder	NY 644946	58.8	FVVA	1970..90	1265	1005	260	1325	85	644	73	1.87	0.24	08/76	62.4	4.4	0.28
023012 *	East Allen	Wide Eals	NY 802583	88.0	VA	1971–80	1034	771	263	1161	79	592	73	2.15	0.15	08/76	72.7	5.0	0.24
023013 *	West Allen	Hindley Wrae	NY 791583	75.1	VA	1971–80	1024	693	331	891	77	541	75	1.65	0.03	05/80	52.9	4.2	0.06
023014 *	North Tyne	Kielder temp	NY 631931	27.0	VA	1960–74	*1106*	952	154	1256	65	642	64	0.81	0.09	10/72		1.8	0.11
023015 *	North Tyne	Barrasford	NY 924721	1043.8	FL	1942..59	996	537	459	653	58	486	53	17.78	1.93	08/55		42.2	2.39
023022	North Tyne	Uglydub	NY 712875	241.5		1989–90		961		963	89	960	90	7.36	2.50	01/90		15.6	1.54
023023	Tyne	Riding Mill	NZ 026619	2174.5		1989–90		413		466	90	466	90	28.49	7.27	07/89		61.9	6.77
024001	Wear	Sunderland Br	NZ 264376	657.8	CB	1957..90	945	534	411	787	79	294	73	11.14	1.21	09/59	221.3	25.2	2.00
024002 *	Gaunless	Bishop Auckland	NZ 215306	93.0	C	1958–83	727	310	417	474	68	138	73	0.92	0.09	08/76	20.2	1.9	0.14
024003	Wear	Stanhope	NY 984391	171.9	CC	1958..90	1296	668	628	**887**	**86**	404	73	3.64	0.30	08/59	121.9	8.6	0.50
024004	Bedburn Beck	Bedburn	NZ 118322	74.9	CC	1959..90	875	513	362	**776**	**88**	281	75	1.22	0.12	08/76	25.4	2.7	0.17
024005	Browney	Burn Hall	NZ 259387	178.5	CB	1954..90	749	301	448	491	60	**139**	**89**	1.70	0.21	10/59	37.6	3.5	0.31
024006 *	Rookhope	Eastgate	NY 952390	36.5	CC	1957–80	1170	668	502	1021	79	334	59	0.77	0.03	08/59	24.6	1.8	0.07
024007 *	Browney	Lanchester	NZ 165462	44.6	CC	1968–83	747	392	355	585	69	209	73	0.55	0.06	10/70	13.9	1.3	0.07
024008	Wear	Witton Park	NZ 174309	455.0	VA	1972..90	*1066*	538	528	**676**	**86**	349	73	7.76	0.91	08/76	196.1	16.6	1.29
024009	Wear	Chester le Street	NZ 283512	1008.3	FV	1977..90	882	455	427	619	79	271	89	14.56	2.95	07/84		31.6	3.07
025001	Tees	Broken Scar	NZ 259137	818.4	CC	1956–90	1152	671	481	**970**	**88**	362	73	17.42	0.46	08/59	375.2	43.4	1.48
025002 *	Tees	Dent Bank	NY 932260	217.3	CC	1956..74	1665	1114	551	1517	67	776	64	7.68	0.21	06/57	262.0	18.8	0.68
025003	Trout Beck	Moor House	NY 759336	11.4	CC	1957..90	1917	1530	387	2902	79	1051	71	0.55	0.02	05/80	16.3	1.5	0.03
025004	Skerne	South Park	NZ 284129	250.1	CB	1956..90	656	204	452	336	69	**75**	**89**	1.62	0.30	08/76	23.3	3.3	0.37
025005	Leven	Leven Bridge	NZ 445122	196.3	CB	1959..90	744	302	442	540	79	**110**	**89**	1.88	0.13	08/76	45.4	4.1	0.27
025006	Greta	Rutherford Br	NZ 034122	86.1	CC	1960–90	1128	826	302	1072	79	530	73	2.26	0.09	07/84	72.8	5.8	0.12
025007 *	Clow Beck	Croft	NZ 282101	78.2	TP	1961–80	727	300	427	471	79	123	73	0.74	0.06	08/76	19.3	1.7	0.09
025008	Tees	Barnard Castle	NZ 047166	509.2	CC	1966..90	1358	827	531	1102	67	558	73	13.35	3.05	06/70	240.0	30.4	3.17
025009	Tees	Low Moor	NZ 364105	1264.0	VA	1969..90	970	449	521	623	79	284	75	18.00	2.37	08/76	303.1	42.4	2.74
025010 *	Baydale Beck	Mowden Bridge	NZ 260156	31.1	MIS	1967..74	646	224	422	334	69	60	73	0.22	0.01	06/73	6.6	0.4	0.01
025011 *	Langdon Bk	Langdon	NY 852309	13.0	FV	1969–83	1478	1014	464	1499	79	713	73	0.42	0.02	08/76	17.9	1.1	0.02
025012	Harwood Bk	Harwood	NY 849309	25.1	FV	1969–90	1601	1239	362	1592	79	890	73	0.99	0.04	08/76	36.7	2.6	0.06
025018	Tees	Middleton	NY 950250	242.1	VA	1971..90	1546	1146	400	**1395**	**86**	794	73	8.80	**2.34**	**05/89**	153.2	18.7	2.45
025019	Leven	Easby	NZ 585087	14.8	FV	1971–90	814	422	392	650	79	**177**	**89**	0.20	**0.04**	**08/90**	6.1	0.4	0.05
025020	Skerne	Preston le Skerne	NZ 292238	147.0	VA	1972..90	642	180	462	324	79	**57**	**89**	0.84	**0.08**	**08/90**	15.7	1.7	0.11
025021	Skerne	Bradbury	NZ 318285	70.1	VA	1973..90	665	175	490	301	79	**50**	**89**	0.39	**0.04**	**09/90**	8.2	0.8	0.06
025022	Balder	Balderhead Res	NY 931182	20.4	CC	1974..80		935		1180	79	640	75	0.61	0.00	12/76	10.5	1.7	
025023	Tees	Cow Green Res	NY 813288	58.2	FV	1971..90	1775	1485	290	1803	79	1170	76	2.74	**0.47**	**01/90**	21.6	6.3	0.49
026001 *	West Beck	Wansford Bridge	TA 064560	192.0	MIS	1953..74	729	410	319	688	66	156	73	2.49	0.38	02/65	6.4	5.4	0.54
026002	Hull	Hempholme	TA 080498	378.1	MIS	1961..90	701	309	392	451	80	**83**	**90**	3.71	**0.37**	**11/90**	12.4	7.2	0.54
026003	Foston Beck	Foston Mill	TA 093548	57.2	TP	1959..90	722	357	365	707	69	**78**	**90**	0.65	**0.07**	**11/90**	1.9	1.4	0.14
026004 *	Gypsey Race	Bridlington	TA 165675	253.8	C	1971..85	737	33	704	79	79		74	0.26	0.00	10/85		0.8	
026005	Gypsey Race	Boynton	TA 137677	240.0	FV	1981–90	708	28	680	46	86		89	0.21	0.00	10/90		0.5	
026006	Elmswell Bk	Little Driffield	TA 009575	136.0	TP	1980–90	*683*	132	551	263	81	21	90	0.57	0.00	11/90		1.4	
026007 *	Catchwater	Withernwick	TA 171403	15.5	FL	1965..79		210		401	69	79	73	0.10	0.00	08/76	1.7	0.3	
026008	Mires Beck	North Cave	SE 890316	41.9	C	1986–90	635				87		89	0.19	0.02	10/90		0.4	0.03
027001	Nidd	Hunsingore Weir	SE 428530	484.3	B	1935..90	973	529	444	800	79	296	64	8.13	0.21	05/84	133.4	18.9	1.73
027002	Wharfe	Flint Mill Weir	SE 422473	758.9	B VA	1955–90	1149	719	430	968	66	474	75	17.31	0.99	08/76	242.9	41.1	2.34
027003	Aire	Beal Weir	SE 534255	1932.1	B VA	1958..90	980	583	397	832	66	347	75	35.69	5.05	08/76		76.4	9.02
027004 *	Calder	Newlands	SE 365220	899.0	VA	1960..76	1053	625	428	883	66	399	75	17.81	4.51	10/72		36.2	4.89
027005	Nidd	Gouthwaite Res	SE 141683	113.7	MIS	1936..90	1363	724	639	1136	54	399	75	2.61	0.27	09/59		7.2	0.48
027006	Don	Hadfields Weir	SK 390910	373.0	B VA	1965–90	1026	465	561	667	79	246	76	5.50	1.02	08/76	106.5	11.1	1.44
027007	Ure	Westwick Lock	SE 356671	914.6	B VA	1958..90	1133	713	420	933	66	446	75	20.68	1.29	08/76	264.9	49.0	2.69
027008 *	Swale	Leckby Grange	SE 415748	1345.6	VA	1955..84	851	472	379	610	58	261	64	20.14	2.08	09/59	175.1	41.9	3.78
027009	Ouse	Skelton	SE 568554	3315.0	VA	1969..90	906	464	442	583	80	284	75	48.82	5.33	08/76	302.0	122.0	7.44
027010 *	Hodge Beck	Bransdale Weir	SE 627944	18.9	TP	1936..79	*1001*	586	415	844	60	259	64	0.35	0.04	09/59	10.6	0.7	0.06
027011 *	Washburn	Lindley Wood	SE 219488	87.3	MIS	1953–76	1006	209	797	430	60	71	75	0.58	0.05	01/76		1.0	0.16
027012 *	Hebden Wtr	High Greenwood	SD 973309	36.0	TP	1954–73	1402	611	791	910	66	315	71	0.70	0.22	08/55	13.5	1.7	0.23
027013 *	Ewden Beck	More Hall Res	SK 289957	26.4	MIS	1954..80	1159	352	807	564	60	91	76	0.30	0.06	01/76		0.6	0.05
027014 *	Rye	Little Habton	SE 743771	679.0	VA	1958..71	805	429	376	624	60	206	64	9.23	1.41	09/59	89.8	19.1	1.74
027015 *	Derwent	Stamford Bridge	SE 714557	1634.3	VA	1961..75	729	316	413	454	66	188	64	16.39	3.79	09/64	103.3	32.0	5.25
027016 *	Little Don	Underbank Res	SK 253992	38.6	MIS	1956..80	1177	523	654	794	80	120	76	0.64	0.12	12/75		1.5	0.14
027017 *	Loxley	Damflask Res	SK 286906	43.5	MIS	1956..80	1145	410	735	623	66	115	76	0.56	0.09	12/59		0.9	0.11
027018 *	Ryburn	Ryburn Res	SE 025187	10.7	TP	1956–74	1336	463	873	781	58	121	73	0.16	0.00	06/73		0.3	

Station number	River name	Station name	Grid reference	Catchment area (sq km)	Station type	Period of record	Mean ann. rainfall (mm)	Mean ann. runoff (mm)	Mean ann. loss (mm)	Max. ann. runoff (mm)	Year of max.	Min. ann. runoff (mm)	Year of min.	Mean flow (m^3s^{-1})	Min. mon. flow (m^3s^{-1})	Month/Year of min.	Mean ann. flood (m^3s^{-1})	10 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
027019 *	Booth Dean	Booth Wd Mill	SE 033166	15.9	CC	1956..74	1386	446	940	744	66	238	73	0.23	0.08	10/59		0.4	0.04
027020 *	Scout Dike St	Scout Dike Res	SE 236047	15.2	VN	1956..80	1038	230	808	421	80	56	76	0.11	>0.00	11/76		0.2	
027021	Don	Doncaster	SE 569040	1256.2	VA	1959..90	802	411	391	576	79	223	75	16.37	3.80	09/59	163.1	35.3	5.05
027022 *	Don	Rotherham Weir	SK 427928	826.0	VA	1960..71	869	465	404	607	66	298	64	12.18	3.15	09/64	147.5	24.1	3.27
027023	Dearne	Barnsley Weir	SE 350073	118.9	CB	1960..90	780	377	403	547	69	197	75	1.42	**0.13**	**09/90**	27.5	3.0	0.24
027024 *	Swale	Richmond	NZ 146006	381.0	VA	1961..80	1211	857	354	1217	67	543	75	10.35	0.45	05/80	273.3	24.2	1.26
027025	Rother	Woodhouse Mill	SK 432857	352.2	VA	1961..90	776	384	392	570	66	227	64	4.29	0.69	10/72	54.5	9.1	1.00
027026	Rother	Whittington	SK 394744	165.0	VA	1963..90	817	381	436	552	81	189	75	1.99	0.20	08/76	41.4	4.4	0.30
027027 *	Wharfe	Ilkley	SE 112481	443.0	VA	1961..75	1330	980	350	1326	67	702	64	13.77	1.85	06/75	273.7	33.0	2.12
027028	Aire	Armley	SE 281340	691.5	B VA	1961..90	1068	688	380	**885**	**88**	432	71	15.09	2.28	08/76	131.9	34.0	3.37
027029	Calder	Elland	SE 124219	341.9	C VA	1961..90	1285	796	489	1208	81	560	64	8.63	1.74	08/76	187.8	18.5	2.23
027030	Dearne	Adwick	SE 477020	310.8	C VA	1963..90	714	342	372	534	69	213	76	3.37	0.76	08/76	44.2	6.8	1.04
027031	Colne	Colne Bridge	SE 174199	245.0	C VA	1964..90	1165	578	587	859	66	320	75	4.49	0.37	08/76	127.8	9.6	0.66
027032	Hebden Beck	Hebden	SE 025643	22.2	MIS	1966..90	1432	246	1186	**321**	**86**	172	73	0.17	0.02	08/83	3.8	0.4	0.02
027033	Sea Cut	Scarborough	TA 028908	33.2	CB	1969..90	777	1273		2074	79	**400**	**89**	1.34	0.06	08/76	39.2	3.4	0.08
027034	Ure	Kilgram Bridge	SE 190860	510.2	VA	1967-90	1359	947	412	**1203**	**86**	645	75	15.32	0.56	08/76	236.2	37.8	1.08
027035	Aire	Kildwick Bridge	SE 013457	282.3	VA	1968..90	1159	690	469	**912**	**88**	408	71	6.18	0.29	08/76	64.3	15.7	0.50
027038	Costa Beck	Gatehouses	SE 774836	7.8	C	1970..90	703	2353		3004	79	**1524**	**90**	0.58	**0.30**	**09/90**		0.8	0.35
027039 *	Holme	Digley Reservoir	SE 112069	9.1	VN	1967-73	1444	301	1143	367	68	267	71	0.09	0.06	11/69		0.1	0.03
027040	Doe Lea	Staveley	SK 443746	67.9	FL	1970-90	711	322	389	490	79	173	76	0.69	0.10	08/76		1.4	0.17
027041	Derwent	Buttercrambe	SE 731587	1586.0	C	1973-90	779	327	452	503	79	**157**	**89**	16.46	**3.08**	**09/90**		33.7	4.26
027042	Dove	Kirkby Mills	SE 705855	59.2	FV	1972-90	930	576	354	828	79	**307**	**89**	1.08	0.16	08/76		2.1	0.23
027043	Wharfe	Addingham	SE 092494	427.0	C VA	1974..90	1409	1074	335	1443	79	775	75	14.54	1.14	08/76		35.3	1.58
027044	Blackfoss Bk	Sandhills Bridge	SE 725475	47.0	FV	1974..90	666	265	401	423	79	**91**	**89**	0.39	0.01	08/76		0.8	0.04
027047	Snaizeholme	Low Houses	SD 833883	10.2	FV	1972..90	1758	1753	5	1991	80	1314	76	0.57	0.02	07/84		1.6	0.02
027048	Derwent	West Ayton	SE 989850	127.0	TP	1972..90	862	68	794	92	79	**43**	**89**	0.27	**0.00**	**09/90**		0.5	0.04
027049	Rye	Ness	SE 696791	238.7	FV	1974-90	882	473	409	665	79	**217**	**89**	3.58	**0.57**	**09/90**		6.9	0.82
027050	Esk	Sleights	NZ 865081	308.0	B VA	1970..90	*895*	494	401	776	86	228	89	4.83	0.27	08/76		10.3	0.61
027051	Crimple	Burn Bridge	SE 284519	8.1	FV	1972..90	835	428	407	**561**	**86**	**269**	**89**	0.11	>0.00	08/76		0.3	0.01
027052	Whitting	Sheepbridge	SK 376747	50.2	C	1976-90	871	531	340	665	79	354	85	0.85	0.12	08/76		1.9	0.17
027053	Nidd	Birstwith	SE 230603	217.6	VA	1975..90	1297	739	558	1036	79	**528**	**89**	5.10	**0.53**	**08/90**		12.5	0.86
027054	Hodge Beck	Cherry Farm	SE 652902	37.1	FV	1974..90	960	571	389	715	80	**298**	**89**	0.67	0.10	08/76		1.4	0.14
027055	Rye	Broadway Foot	SE 560883	131.7	C	1974..90	913	537	376	695	78	254	89	2.24	0.42	09/89		3.9	0.51
027056	Pickering Bk	Ings Bridge	SE 791819	68.6	C	1974..90	854	388	466	511	80	**177**	**89**	0.84	0.16	08/76		1.5	0.20
027057	Seven	Normanby	SE 736821	121.6	C	1974..90	921	464	457	644	80	**182**	**89**	1.79	0.08	08/76		3.4	0.19
027058	Riccal	Crook Ho Farm	SE 661810	57.6	FV	1974..90	852	247	605	339	78	**137**	**89**	0.45	**0.18**	**09/90**		0.8	0.19
027059	Laver	Ripon	SE 301710	87.5	C	1977..90	948	381	567	**436**	**86**	**241**	**89**	1.06	**0.06**	**09/90**		2.3	0.11
027060	Kyle	Newton On Ouse	SE 509602	167.6	FV	1979-90	650	2060		**2497**	**86**	**898**	**89**	10.95	**0.11**	**09/89**		38.4	0.14
027061	Colne	Longroyd Bridge	SE 136161	72.3	FV	1978-90	1385	651	734	852	81	456	85	1.49	**0.27**	**09/89**		3.3	0.29
027062	Nidd	Skip Bridge	SE 482561	516.0	FV	1979..90	989	874	115	**1108**	**86**	**517**	**89**	14.30	**1.18**	**09/90**		31.5	1.60
027063	Dibb	Grimwith Res	SE 057639	25.5	FV	1980..90	*1294*	941	353	1185	89	643	85	0.76	0.00	10/84		1.8	0.02
027064	Went	Walden Stubbs	SE 551163	83.7	FV	1979-90	*616*	231	385	319	80	**144**	**90**	0.61	**0.15**	**09/90**		1.1	0.19
027065	Holme	Queens Mill	SE 142157	97.4	FV	1979..90	*1250*	714	536	**857**	**86**	494	85	2.21	**0.38**	**09/89**		4.9	0.44
027066	Blackburn B	Ashlowes	SK 393914	42.8	FV	1981-90	*757*	203	554	246	86	119	85	0.28	0.01	09/85		0.7	0.01
027067	Sheaf	Highfield Road	SK 357863	49.1	FV	1981-90	*891*	400	491	520	86	277	85	0.62	**0.08**	**09/90**		1.4	0.09
027068	Ryburn	Ripponden	SE 035188	33.0	FV	1981..90		537		675	86	403	85	0.56	0.12	08/84		1.1	0.21
027069	Wiske	Kirby Wiske	SE 375844	215.5	FV	1980..90	*638*	486	152	614	86	136	89	3.32	0.17	09/89		8.4	0.19
027070	Eller Beck	Skipton	SD 984502	35.3	CC	1981..90	*1054*	1357		1815	88	631	89	1.52	0.05	07/84		1.9	0.09
027071	Swale	Crakehill	SE 425734	1363.0	C VA	1955..90	851	450	401	603	58	258	64	19.45	1.96	08/76		42.6	3.46
027072	Worth	Keighley	SE 064408	71.7	FV	1980..90	*1227*	607	620	727	86	471	89	1.38	0.26	08/89		3.1	0.26
027073	Brompton Bk	Snainton Ings	SE 936794	12.9	C	1981..90	*705*	609	96	770	86	149	89	0.25	>0.00	10/90		0.5	0.01
027074	Spen Beck	Northorpe	SE 225210	46.3	C	1982-90	780	554	226	649	86	451	89	0.81	0.32	07/84		1.5	0.32
027075	Bedale Beck	Leeming	SE 306902	160.3	FV	1983-90	*670*	396	274	531	86	223	89	2.01	0.27	09/89		3.3	0.29
027076	Bielby Beck	Thornton Lock	SE 760444	103.1	FV	1983-90	*612*	113	499	150	84	42	89	0.37	0.01	08/90		0.8	0.02
027077	Bradford Bk	Shipley	SE 151375	58.0	FV	1983-90	*922*	365	557	469	86	290	85	0.67	0.15	07/84		1.4	0.16
027080	Aire	Fleet Weir	SE 381285	865.0	C	1985-90	952	631	321	765	86	492	89	17.32	4.81	09/89		38.1	4.78
027081	Oulton Beck	Farrer Lane	SE 365281		FV	1986-90	663				87		89	0.14	0.02	09/90		0.3	0.02
027082	Cundall Beck	Bat Bridge	SE 419724		FV	1987-90	592				88		89	0.15	0.03	07/90		0.2	0.03
027084	Eastburn Beck	Crosshills	SE 021452	43.4	FV	1988-90		602		629	90	486	89	0.83	0.07	09/89		2.0	0.06
027086	Skell	Alma Weir	SE 316709		FV	1984..90					86		90	1.43	0.11	09/90		3.3	0.19

Hydrometric Statistics

	Period	Rainfall (mm)	% of pre-1986	Runoff (mm)	% of pre-1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
022001 **Coquet at Morwick** C.A: 569.8 km²	**63..85**	**872**		**482**		**8.72**	**289.7**	**04/01 1982**	**0.72**	**20/06 1970**	**19.0**	**4.99**	**1.36**
M.A: NRA-N Level: 5m Local Number:													
F.A.R: N B.F.I: .45 Sensitivity: 6.6	1986	918	105	507	105	9.16	234.4	26/08	1.43	22/07	18.2	5.23	1.69
Comment: Velocity-area station with 34m wide concrete Flat V weir (informal design, approx. 1:20 cross-slope) made with pre-cast segments (installed 1973). Cableway. Fairly straight section with high banks. Replaced earlier station at Guyzance. Responsive natural regime. # A predominantly upland catchment draining from the Cheviots. Largely Carboniferous Limestone and Devonian Igneous series. Some afforestation.	1987	985	113	594	123	10.74	113.3	01/01	1.77	15/09	25.8	5.85	2.34
	1988	918	105	465	96	8.37	163.3	30/11	1.44	25/06	16.6	5.00	1.80
	1989	574	66	224	46	4.05	121.8	25/02	0.99	27/07	8.3	2.18	1.07
	1990	829	95	333	69	6.02	79.3	07/02	0.91	15/09	15.6	2.77	0.99
022006 **Blyth at Hartford Bridge** C.A: 269.4 km²	**66..85**	**707**		**251**		**2.15**	**150.2**	**02/03 1981**	**0.05**	**23/08 1976**	**5.1**	**0.78**	**0.11**
M.A: NRA-N Level: 25m Local Number:													
F.A.R: E B.F.I: .34 Sensitivity: 23.8	1986	746	106	279	111	2.38	80.3	15/04	0.12	27/07	5.1	1.00	0.15
Comment: Velocity-area station with Flat V weir for low flow control installed in 1968. Originally 24.4m wide, reduced in width in early 1980s and recalibrated. Small net export - runoff from about 20 km² of headwaters diverted to Whittle Dean catchment. # Mostly Millstone Grit and Coal Measures.	1987	839	119	351	140	3.00	45.7	23/11	0.19	09/07	7.1	1.41	0.30
	1988	721	102	254	101	2.16	59.4	06/01	0.24	24/06	4.3	1.13	0.31
	1989	462	65	79	31	0.68	29.5	25/02	0.10	08/08	1.4	0.34	0.13
	1990	611	86	121	48	1.03	29.5	08/02	0.05	05/08	2.9	0.35	0.08
022007 **Wansbeck at Mitford** C.A: 287.3 km²	**68-85**	**791**		**358**		**3.26**	**466.6**	**03/01 1982**	**0.10**	**20/08 1976**	**7.1**	**1.40**	**0.22**
M.A: NRA-N Level: 31m Local Number:													
F.A.R: SP B.F.I: .37 Sensitivity: 7.6	1986	867	110	399	111	3.64	262.5	15/04	0.25	27/07	6.5	1.84	0.29
Comment: Velocity-area station with Flat V weir and central flume for low flow measurement (installed 1974). Replaced older broad-crested weir also with central flume. Recalibration of high flow rating scheduled. Modest net effect of artificial influences (export from headwater reservoir). # A mainly lowland catchment located on Millstone Grit, Upper, Middle and Lower Limestone.	1987	965	122	489	137	4.45	66.5	01/01	0.43	09/07	9.6	2.57	0.66
	1988	850	107	380	106	3.45	171.1	06/01	0.27	24/06	6.4	1.92	0.43
	1989	553	70	137	38	1.25					3.1	0.43	0.15
	1990	758	96	213	59	1.94	52.5	07/02	0.13	05/08	5.3	0.62	0.16
022009 **Coquet at Rothbury** C.A: 346.0 km²	**72-85**	**886**		**522**		**5.73**	**282.1**	**03/01 1982**	**0.52**	**25/08 1976**	**12.0**	**3.50**	**0.91**
M.A: NRA-N Level: 71m Local Number:													
F.A.R: SPN B.F.I: .48 Sensitivity: 10.6	1986	1010	114	601	115	6.60	217.5	26/08	0.80	27/07	12.4	3.93	1.03
Comment: Velocity-area station with cableway; informal mill weir below station provides good control. Well confined section with straight approach. Calibration under review - a reduction in computed high flows is anticipated. # Natural catchment located on Cheviot Igneous, Cementstone and Fell Sandstone.	1987	1037	117	665	127	7.30	117.3	18/10	1.36	10/08	15.2	4.69	1.66
	1988	990	112	483	93	5.28	155.8	06/01	0.87	24/06	10.5	3.23	1.07
	1989	636	72	263	50	2.89	50.3	24/02	0.52	04/08	6.4	1.45	0.57
	1990	935	106	395	76	4.33	90.5	04/02	**0.44**	**04/08**	11.2	1.83	0.47
023001 **Tyne at Bywell** C.A: 2175.6 km²	**56..85**	**1026**		**636**		**43.87**	**1586.0**	**17/10 1967**	**2.48**	**07/09 1976**	**101.9**	**24.03**	**5.44**
M.A: NRA-N Level: 14m Local Number:													
F.A.R: S B.F.I: .36 Sensitivity: 11.8	1986	1209	118	775	122	53.46	1561.5	26/08	5.76	04/10	121.8	31.39	8.19
Comment: Velocity-area station. New station u/s at Riding Mill but 23/1 remains operational. In drought years, Kielder releases maintain low flows (4.2 m^3s^{-1} min.) and support transfers to the Derwent, Wear and Tees. Some export of water, and regime influenced by pulsed hydropower releases from Kielder but regime remains predominantly natural. # An impervious catchment (largely Carboniferous Limestone) draining from the northern Pennines. Extensive moorland, significant afforestation; arable farming confined to the lower valley.	1987	1174	114	749	118	51.65	826.6	27/12	7.07	09/07	102.7	32.75	9.32
	1988	1098	107	659	104	45.34	1105.1	28/07	4.40	29/06	87.2	29.54	7.06
	1989	820	80	449	71	30.94	843.6	04/02	4.14	17/07	67.3	19.39	6.45
	1990	1176	115	641	101	44.19	1136.8	04/02	5.81	18/06	122.4	18.74	6.79
023002 **Derwent at Eddys Bridge** C.A: 118.0 km²	**54-85**	**952**		**332**		**1.24**	**58.1**	**15/07 1961**	**0.11**	**12/09 1959**	**2.6**	**0.52**	**0.29**
M.A: NRA-N Level: 181m Local Number:													
F.A.R: S B.F.I: .51 Sensitivity: 7.3	1986	1115	117	194	58	0.73	27.9	15/04	0.30	02/03	0.8	0.45	0.34
Comment: Broad-crested weir with central low flow flume. Model calibration. From 1965 flows controlled by Derwent Reservoir, 2 km upstream. Substantial net export of water.	1987	1069	112	247	74	0.93	19.8	24/11	0.38	20/08	1.6	0.49	0.40
	1988	932	98										
	1989	669	70	95	29	0.36	2.4	23/03	**0.08**	**15/10**	0.5	0.39	0.11
	1990	987	104	87	26	0.32					0.5	0.25	0.15
023003 **North Tyne at Reaverhill** C.A: 1007.5 km²	**59..85**	**1051**		**624**		**19.94**	**631.5**	**09/12 1964**	**0.96**	**25/08 1976**	**47.8**	**10.04**	**2.19**
M.A: NRA-N Level: 65m Local Number:													
F.A.R: S B.F.I: .33 Sensitivity: 7.2	1986	1232	117	736	118	23.52	331.5	26/08	2.34	08/07	50.7	15.01	4.21
Comment: Velocity-area station with natural channel control. Replaced earlier station at Barrasford. Predominantly natural regime but affected by Kielder releases (see 23023) - including pulsed hydropower releases; overall impact most evident at low flows. Catcleugh and Colt Crag Reservoirs in the catchment (also intermittent abstraction at Barrasford) - net export of water. # Upland catchment developed mainly on formations of the Carboniferous Limestone Series. Rugged moorland and upland pasture, some afforestation.	1987	1187	113	755	121	24.11	315.1	27/12	2.60	10/07	53.4	17.92	3.01
	1988	1112	106										
	1989	848	81	484	78	15.48	236.8	04/02	2.43	16/07	31.5	10.19	3.07
	1990	1218	116	627	100	20.05	423.1	04/02	2.70	31/05	48.1	9.86	3.92
023004 **South Tyne at Haydon Bridge** C.A: 751.1 km²	**62..85**	**1154**		**743**		**17.70**	**516.3**	**16/10 1967**	**0.92**	**09/09 1969**	**42.2**	**9.82**	**2.19**
M.A: NRA-N Level: 59m Local Number:													
F.A.R: N B.F.I: .34 Sensitivity: 7.9	1986	1376	119	869	117	20.69	**538.0**	**26/08**	1.85	19/07	50.4	11.33	2.11
Comment: Velocity-area station with informal Flat V weir as low flow control installed in 1972. Cableway. Some overspill onto left bank during floods. Recalibration underway - expected to increase flows. Natural regime. # An upland catchment draining the northern Pennines. Geology is predominantly Carboniferous (Carb. Limestone and Millstone Grit).	1987	1320	114	838	113	19.96	325.6	18/10	2.44	28/05	44.5	11.12	3.22
	1988	1262	109	812	109	19.28	**598.8**	**28/07**	1.99	23/06	39.1	11.36	2.51
	1989	940	81	517	70	12.32	404.3	04/02	1.37	26/07	28.8	5.02	1.56
	1990	1354	117	809	109	19.26	450.4	28/12	1.50	04/08	50.1	7.62	1.78
023006 **South Tyne at Featherstone** C.A: 321.9 km²	**66..85**	**1331**		**1019**		**10.40**	**309.9**	**03/11 1984**	**0.71**	**26/08 1976**	**24.5**	**5.27**	**1.35**
M.A: NRA-N Level: 132m Local Number:													
F.A.R: N B.F.I: .33 Sensitivity: 12.1	1986	1590	119	1238	121	12.64	297.3	26/08	1.32	18/07	34.9	6.74	1.50
Comment: Compound Crump profile weir. Lower crest 15.2m, upper crest 29.5m. Theoretical rating. Structure contains all flows. Extreme peaks may be underestimated. Natural flow regime. # Linear, northerly trending catchment in the north Pennines. Geology is mainly Carboniferous Limestone.	1987	1550	116	1200	118	12.25	263.1	18/10	1.90	28/05	28.6	6.41	2.45
	1988	1474	111	1149	113	11.70	273.6	28/07	1.30	24/06	25.3	6.91	1.88
	1989	1137	85	787	77	8.03	211.9	04/02	0.79	25/06	19.6	3.92	0.93
	1990	1628	122	1144	112	11.68	220.0	28/12	1.03	04/08	29.7	5.32	1.31
023007 **Derwent at Rowlands Gill** C.A: 242.1 km²	**62..85**	**847**		**349**		**2.68**	**98.0**	**05/11 1967**	**0.28**	**18/04 1972**	**5.4**	**1.58**	**0.79**
M.A: NRA-N Level: 29m Local Number:													
F.A.R: P B.F.I: .58 Sensitivity: 11.9	1986	961	113	343	98	2.63	70.3	15/04	0.86	21/07	4.6	1.67	0.92
Comment: Two Crump profile weirs with slightly different crest levels beneath the two arches of a bridge. Flow regime substantially influenced by Derwent Reservoir (started impounding in 1965); significant net export. # Carboniferous Limestone (upper catchment), Millstone Grit and Coal Measures.	1987	957	113										
	1988	833	98	345	99	2.64	67.3	06/01	0.97	02/10	5.3	1.69	1.03
	1989	580	68										
	1990	850	100	222	64	1.71	26.3	07/02	0.83	09/08	3.2	1.10	0.87
023008 **Rede at Rede Bridge** C.A: 343.8 km²	**68..85**	**920**		**529**		**5.76**	**282.7**	**19/02 1970**	**0.38**	**26/08 1976**	**13.8**	**2.54**	**0.60**
M.A: NRA-N Level: 107m Local Number:													
F.A.R: SP B.F.I: .33 Sensitivity: 13.8	1986	1102	120	714	135	7.78	190.1	26/08	0.66	27/07	18.8	3.82	0.76
Comment: Flat V weir constructed with pre-fabricated crest units. Width 24.3m. Catcleugh Reservoir (commands 40 km²) has an appreciable influence on flows; modest net export. # Forestry and grazing. Lower Carboniferous rocks mostly covered by Boulder Clay and alluvium.	1987	1118	122										
	1988	1024	111	554	105	6.03	118.4	06/01	0.66	23/06	12.2	3.36	0.86
	1989	756	82										
	1990	1089	118										

		Period	Rainfall (mm)	% of pre-1986	Runoff (mm)	% of pre-1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
024001	**Wear at Sunderland Bridge** C.A: 657.8 km²	**57..85**	**946**		**534**		**11.13**	**576.7**	**05/11 1967**	**0.90**	**04/10 1959**	**25.1**	**5.78**	**1.96**
M.A: NRA-N	Level: 40m Local Number:													
F.A.R: SGE	B.F.I: .42 Sensitivity: 8.4	1986	1070	113	694	130	14.47	457.7	26/08	2.13	17/07	31.6	8.35	2.32
Comment: Compound broad-crested weir within the arches of road bridge. High flows are above vertical walls of bridge openings and tapping point within drawdown effect. Weed growth in summer. Significant artificial influences: reservoirs in catchment, minewater discharges and, in drought years, minimum flows supported by Kielder transfer. # Geology: mainly Carboniferous (Carb. Limestone, Millstone Grit and Coal Measures).		1987	1010	107	631	118	13.16	234.7	23/11	2.82	01/06	27.1	7.73	3.34
		1988	983	104	557	104	11.59	245.9	06/01	2.25	24/06	24.3	6.27	2.63
		1989	676	71	339	63	7.08	171.5	23/03	1.91	06/07	16.7	3.49	2.17
		1990	971	103										
024003	**Wear at Stanhope** C.A: 171.9 km²	**58..85**	**1292**		**660**		**3.60**	**237.9**	**23/03 1968**	**0.24**	**06/09 1959**	**8.3**	**1.69**	**0.50**
M.A: NRA-N	Level: 202m Local Number:													
F.A.R: SE	B.F.I: .35 Sensitivity: 14.6	1986	1513	117	887	134	4.84	85.1	20/01	0.53	17/10	13.5	2.44	0.57
Comment: Compound Crump profile weir overall width 19.1m central low crest width 7.6m. Steep rocky section. Wingwalls raised in 1967; no bypassing. Very flashy response. Burnhope Reservoir (catchment: 19 km²) has noticeable effect; net export. # Steep Pennine moorland catchment. Mainly Lower Carboniferous Limestone. Some arable farm land but mostly sheep grazing.		1987	1347	104	749	113	4.08	85.3	23/11	0.67	01/06	9.8	2.01	0.87
		1988	1367	106	704	107	3.83	122.3	28/07	0.57	23/06	8.8	1.99	0.65
		1989	1004	78	452	68	2.46	102.7	23/03	0.42	08/08	5.7	0.93	0.46
		1990	1442	112										
024004	**Bedburn Beck at Bedburn** C.A: 74.9 km²	**59..85**	**875**		**506**		**1.20**	**42.9**	**27/12 1978**	**0.08**	**08/10 1959**	**2.6**	**0.69**	**0.18**
M.A: NRA-N	Level: 109m Local Number:													
F.A.R: N	B.F.I: .47 Sensitivity: 13.6	1986	971	111	611	121	1.45	**46.2**	**26/08**	0.17	27/07	3.1	0.91	0.21
Comment: Compound Crump profile weir, 2.4 m low crest, 10.3m overall. Set in a deep valley; no bypassing. Calibration under review (1992). Natural regime. # Millstone Grit in north and Coal Measures to south. Coniferous forest, arable farming and sheep grazing.		1987	946	108	626	124	1.49	24.7	20/10	0.29	01/06	3.4	0.97	0.35
		1988	926	106	778	154	1.84	30.1	20/10	0.24	30/06	3.5	1.24	0.30
		1989	608	69	315	62	0.75	16.2	23/03	0.12	04/10	1.7	0.29	0.12
		1990	870	99	425	84	1.01	19.4	07/02	0.10	16/09	2.7	0.34	0.12
024005	**Browney at Burn Hall** C.A: 178.5 km²	**54..85**	*757*		**306**		**1.73**	**80.4**	**28/03 1979**	**0.15**	**25/10 1959**	**3.6**	**1.01**	**0.34**
M.A: NRA-N	Level: 44m Local Number:													
F.A.R: GI	B.F.I: .52 Sensitivity: 13.7	1986	787	104	376	123	2.13	**81.0**	**26/08**	0.30	17/08	3.9	1.26	0.50
Comment: Compound broad-crested weir (17.6 m broad, low crest 5.5 m) within a deep valley and having a steep fall downstream. Divide piers inserted and wing walls raised in 1968. Theoretical rating with check gaugings. Imports influence low flows, minewater discharges also - but regime is predominantly natural. # Geology: Coal Measures.		1987	817	108	357	117	2.02	42.9	21/10	0.56	04/10	3.7	1.26	0.67
		1988	726	96	235	77	1.33	48.8	06/01			2.6	0.88	0.06
		1989	474	63	139	45	0.79	18.6	24/02	0.13	24/09	1.5	0.52	0.19
		1990	705	93	229	75	1.30	27.8	07/02	0.18	23/07	3.2	0.58	0.23
024008	**Wear at Witton Park** C.A: 455.0 km²	**72..85**	*1073*		**534**		**7.70**	**343.4**	**25/01 1975**	**0.70**	**07/09 1976**	**16.4**	**4.16**	**1.21**
M.A: NRA-N	Level: 77m Local Number:													
F.A.R: SR	B.F.I: .44 Sensitivity: 9.3	1986	1200	112	676	127	9.75	276.3	26/08	1.11	21/07	20.6	6.24	1.31
Comment: Velocity-area station with informal Flat V low flow control of rectangular section. Cableway. Catchment contains three reservoirs(including Burnhope), net export of water. Transfers from Kielder (Tyne catchment) in drought years entering the Wear at Frosterley. # Geology is mainly Carboniferous Limestone and Millstone Grit. Pennine headwaters with extensive moorland, mixed land use in the lower valley.		1987	1111	104	616	115	8.88	170.1	23/11	1.65	01/06	17.1	5.61	2.17
		1988	1093	102	560	105	8.06	203.5	28/07	1.27	24/06	16.0	4.61	1.62
		1989	766	71	357	67	5.15	166.6	23/03	0.97	14/07	13.0	2.44	1.32
		1990	1111	104	527	99	7.61	177.8	25/01	1.20	16/06	20.1	2.90	1.40
024009	**Wear at Chester le Street** C.A: 1008.3 km²	**77-85**	**901**		**462**		**14.78**	**353.1**	**27/12 1978**	**2.29**	**16/07 1984**	**31.7**	**8.48**	**3.29**
M.A: NRA-N	Level: 6m Local Number:													
F.A.R: RG	B.F.I: .47 Sensitivity: 8.3	1986	961	107										
Comment: Flat V weir (1:2, 1:2 profile). Structure drowns but calibrated by current meter at high flows. Flows augmented by minewater pumpings. Reservoirs in catchment include Burnhope. In drought years low flows supported by Kielder transfer (flows maintained > 2 m^3s^{-1}). Overall impact of artificial influences is modest. # Geology: Carboniferous Limestone and Millstone Grit. Pennine headwaters with extensive moorland, mixed land use in lower valley.		1987	932	103	536	116	17.13	254.1	23/11	4.52	08/07	35.4	10.58	5.04
		1988	887	98	471	102	15.01	281.0	06/01	3.21	24/06	32.4	8.44	4.02
		1989	597	66	271	59	8.66	176.4	24/03	2.59	14/07	20.7	4.73	2.79
		1990	866	96	396	86	12.66	197.4	07/02	2.49	20/07	33.1	5.22	2.79
025001	**Tees at Broken Scar** C.A: 818.4 km²	**56-85**	**1147**		**655**		**17.00**	**679.3**	**23/03 1968**			**42.7**	**7.98**	**1.35**
M.A: NRA-N	Level: 37m Local Number:													
F.A.R: SRP	B.F.I: .30 Sensitivity: 5.2	1986	1297	113	894	136	23.20	**709.8**	**26/08**	2.91	25/09	53.4	14.14	3.26
Comment: Compound Crump profile weir with total crest length of 63.9m. Two low-flow crests total 9.1m. Theoretical rating (confirmed by gaugings). Significant export of water from direct supply reservoirs and u/s abstraction. Some regulation from Cow Green Reservoir. Transfers of water from Kielder in drought years. # A mainly impervious catchment developed on Millstone Grit and Carboniferous Limestone. Headwaters drain the Pennines. Moorland and rough pasture give way to more intensive agriculture in the lower reaches.		1987	1197	104	765	117	19.86	248.5	18/10	3.25	28/05	47.8	11.56	3.88
		1988	1274	111	972	148	25.16	380.7	28/07	2.33	21/05	54.0	16.24	3.27
		1989	874	76	499	76	12.94	300.1	23/03	2.38	18/05	32.4	4.75	2.90
		1990	1224	107	705	108	18.29	445.2	19/02	2.74	25/04	47.3	7.20	3.44
025004	**Skerne at South Park** C.A: 250.1 km²	**56..85**	**661**		**212**		**1.68**	**59.2**	**29/03 1979**	**0.24**	**07/08 1976**	**3.4**	**1.01**	**0.40**
M.A: NRA-N	Level: 34m Local Number:													
F.A.R: GEI	B.F.I: .52 Sensitivity: 10.3	1986	712	108										
Comment: Compound broad-crested weir. Significant sewage effluent component in low flows. Pumped mine-waters can also augment flow (a declining contribution). Excess flow from the Cocker Beck diverted (u/s of Darlington) directly to the Tees. # A catchment of mixed land use developed mostly on Magnesian Limestone. Moorland headwaters, considerable urban development with some industry - downstream.		1987	736	111	232	109	1.84	22.0	21/10	0.46	20/08	3.7	1.11	0.50
		1988	669	101	190	90	1.50					3.3	0.85	0.45
		1989	414	63	75	35	0.59	11.7	25/02	0.25	01/10	1.0	0.47	0.28
		1990	592	90	107	50	0.85	19.2	08/12	**0.20**	**02/08**	1.5	0.42	0.23
025005	**Leven at Leven Bridge** C.A: 196.3 km²	**59..85**	**753**		**308**		**1.91**	**107.4**	**28/03 1979**	**0.09**	**05/09 1976**	**4.2**	**0.92**	**0.27**
M.A: NRA-N	Level: 5m Local Number:													
F.A.R: EN	B.F.I: .44 Sensitivity: 23.0	1986	842	112	398	129	2.48	68.5	17/04	0.36	16/07	5.9	1.21	0.41
Comment: Compound broad-crested weir, width 17.4m, with a bypass Crump profile weir width 4.6m. Theoretical rating (further confirmatory gaugings needed). Sharp bend and road bridge just upstream of weirs and large drop below. Sensibly natural regime. # Mixed geology (of mostly Permian/Jurassic age). Headwaters drain from the Cleveland Hills. Arable agriculture and some urban development in the lower valley.		1987	816	108	386	125	2.40	32.7	11/10	0.37	09/07	4.9	1.42	0.48
		1988	715	95	293	95	1.82	26.5	01/02	0.42	16/08	4.0	0.95	0.46
		1989	494	66	110	36	0.68	13.8	25/02	0.20	20/09	1.2	0.52	0.25
		1990	650	86	183	59	1.14	43.9	08/12	0.15	22/07	2.2	0.51	0.17
025006	**Greta at Rutherford Bridge** C.A: 86.1 km²	**60-85**	**1122**		**820**		**2.24**	**118.0**	**02/01 1982**	**0.04**	**25/08 1976**	**5.7**	**0.81**	**0.13**
M.A: NRA-N	Level: 223m Local Number:													
F.A.R: N	B.F.I: .21 Sensitivity: 19.9	1986	1324	118	1056	129	2.88	**210.4**	**25/08**	0.09	17/07	7.3	1.05	0.11
Comment: Compound Crump profile weir, total width 19.2m, low flow crest 3m broad. Theoretical rating with check gaugings. Responsive, natural regime. # An eastward-draining Pennine catchment developed largely on Millstone Grit.		1987	1126	100	815	99	2.22	42.8	18/10	0.17	10/05	5.5	0.92	0.23
		1988	1234	110	913	111	2.49	56.4	01/02	0.11	24/06	5.7	1.01	0.17
		1989	881	79	643	78	1.76	60.4	23/03	0.08	01/10	4.6	0.45	0.10
		1990	1179	105	886	108	2.42	83.6	19/02	0.05	04/08	6.9	0.53	0.07
025009	**Tees at Low Moor** C.A: 1264.0 km²	**69..85**	*966*		**436**		**17.47**	**416.8**	**03/01 1982**	**1.57**	**30/05 1978**	**40.6**	**9.21**	**2.77**
M.A: NRA-N	Level: 4m Local Number:													
F.A.R: SRPGEI	B.F.I: .37 Sensitivity: 9.5	1986	1101	114	598	137	23.97	**458.3**	**26/08**	2.76	10/07	55.5	14.75	3.16
Comment: Velocity-area station with Flat V low flow control constructed in 1974. Good calibration, confirmed to >400 m^3s^{-1}. Lowest station on River Tees. Substantial artificial influences on the flow regime - significant net export of water (but benefit of Kielder transfers during droughts. # Geology: mostly Carboniferous (Millstone Grit and Carb. Limestone), some Magnesian limestone. Mixed land use below Pennine headwaters.		1987	1036	107	548	126	21.97	218.5	18/10	3.31	09/07	47.8	13.06	4.13
		1988	1069	111	576	132	23.03	292.8	28/07	2.44	14/06	49.0	14.87	3.13
		1989	721	75	299	69	11.97	225.1	24/03	1.92	02/12	33.5	4.88	2.30
		1990	1007	104	428	98	17.14	365.5	20/02	1.85	05/08	45.2	6.18	2.56

		Period	Rainfall (mm)	% of pre-1986	Runoff (mm)	% of pre-1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
025012	**Harwood Beck at Harwood** C.A: 25.1 km²	**69-85**	**1569**		**1210**		**0.96**	**75.0**	**02/01 1976**	**0.03**	**24/08 1976**	**2.6**	**0.38**	**0.06**
M.A: NRA-N	Level: 374m Local Number:													
F.A.R: N	B.F.I: .23 Sensitivity: 25.0	1986	1893	121	1422	118	1.13	30.1	25/08	0.06	17/10	3.0	0.51	0.07
Comment: Flat V weir (1:2 crest slopes, 1:10 cross-slope) for low flow control at velocity-area station. Shallow gravel bedded reach. Natural, responsive regime. # Small Pennine catchment developed mostly on Carboniferous Limestone.		1987	1696	108	1229	102	0.98	20.0	13/09	0.11	27/05	2.5	0.40	0.12
		1988	1766	113	1486	123	1.18	33.6	28/07	0.07	23/06	3.1	0.58	0.09
		1989	1298	83	977	81	0.78	23.0	04/02	0.04	12/07	2.0	0.27	0.08
		1990	1877	120	1542	127	1.23	31.0	25/01	0.06	31/07	3.8	0.46	0.08
025018	**Tees at Middleton in Teesdale** C.A: 242.1 km²	**71..85**	**1522**		**1113**		**8.55**	**258.8**	**02/01 1976**	**0.88**	**01/07 1976**	**18.0**	**4.79**	**2.47**
M.A: NRA-N	Level: 211m Local Number:													
F.A.R: SR	B.F.I: .42 Sensitivity: 6.1	1986	1718	113	1395	125	10.71	235.8	26/08	1.59	08/06	24.8	6.41	2.61
Comment: Velocity-area station with Flat V weir (informal design, limited modular range) for low-flow control constructed in 1972. Cableway. Replaced earlier station at Dent Bank. Straight reach, gravel and rock bed. Steep gradient. Flows affected by Cow Green Reservoir. # Mostly an upland catchment draining from the Pennines. Geology is largely Carboniferous Limestone, some Millstone Grit.		1987	1643	108	1274	114	9.78	138.5	27/12	1.77	14/12	21.3	6.48	2.60
		1988	1744	115	1349	121	10.33	**267.4**	**28/07**	0.96	19/06	21.4	6.73	1.44
		1989	1223	80	884	79	6.78	169.3	04/02	1.37	02/05	14.4	4.11	2.10
		1990	1766	116	1295	116	9.94	234.3	25/01	2.03	01/04	22.8	5.01	3.01
025019	**Leven at Easby** C.A: 14.8 km²	**71-85**	**816**		**435**		**0.20**	**12.8**	**11/09 1976**	**0.03**	**07/09 1976**	**0.4**	**0.13**	**0.06**
M.A: NRA-N	Level: 101m Local Number:													
F.A.R: N	B.F.I: .59 Sensitivity: 25.0	1986	990	121	567	130	0.27	9.4	17/04	0.07	15/08	0.5	0.17	0.07
Comment: Flat V Crump profile weir, width 5m, in rectangular concrete river section. # Natural catchment. Grazing and arable land. Upper Lias rock overlain by Lower Oolite series (sandstone). Sand, gravel and Boulder Clay in valleys.		1987	965	118	541	124	0.25	**15.5**	**26/08**	0.08	20/08	0.4	0.18	0.10
		1988	723	89	355	82	0.17	2.0	01/02	0.06	01/10	0.3	0.11	0.06
		1989	576	71	176	40	0.08	0.6	14/12	0.03	06/09	0.1	0.06	0.04
		1990	776	95	276	63	0.13	4.0	08/12	**0.03**	**15/09**	0.2	0.07	0.04
025020	**Skerne at Preston le Skerne** C.A: 147.0 km²	**72..85**	**647**		**188**		**0.88**	**26.6**	**28/03 1979**	**0.07**	**29/09 1977**	**1.8**	**0.46**	**0.14**
M.A: NRA-N	Level: 68m Local Number:													
F.A.R: E	B.F.I: .41 Sensitivity: 28.9	1986	711	110	215	114	1.00	18.5	17/04	0.19	04/10	1.8	0.48	0.21
Comment: Velocity-area station with informal low-flow control constructed in 1978. Cableway. Straight approach. All flows contained in channel. Small export from headwater reservoirs; minewater additions affect parts of the early record. # Relatively dry catchment developed mainly on Magnesian Limestone, some Coal Measures. Mixed land use below moorland headwaters.		1987	746	115	243	129	1.13	17.0	23/11	0.22	01/06	2.2	0.60	0.27
		1988	671	104	199	106	0.93	14.4	30/11	0.21	01/10	2.1	0.48	0.25
		1989	411	64	57	30	0.27	9.4	25/02	0.07	15/10	0.4	0.21	0.09
		1990	602	93	93	49	0.43	14.0	08/12	**0.04**	**12/09**	0.9	0.17	0.06
025021	**Skerne at Bradbury** C.A: 70.1 km²	**73..85**	**680**		**191**		**0.42**	**21.0**	**29/03 1979**	**0.04**	**24/06 1984**	**0.9**	**0.22**	**0.08**
M.A: NRA-N	Level: 72m Local Number:													
F.A.R: SPGE	B.F.I: .46 Sensitivity: 20.5	1986	716	105	188	98	0.42	9.1	17/04	0.08	04/10	0.7	0.21	0.10
Comment: Velocity-area station with informal Flat V low-flow weir constructed in 1973. High flow control by bridge invert 10m below weir. Cableway. Small net export of water from headwater reservoirs. # South-west trending catchment developed mostly on Magnesian Limestone.		1987	744	109	197	103	0.44	5.4	23/11	0.11	31/05	0.9	0.26	0.12
		1988	669	98	172	90	0.38	5.8	06/01	0.10	08/10	0.8	0.20	0.11
		1989	403	59	50	26	0.11	2.6	25/02	0.05	23/09	0.2	0.09	
		1990	610	90	80	42	0.18	5.3	08/12	**0.02**	**10/09**	0.3	0.08	0.03
026002	**Hull at Hempholme Lock** C.A: 378.1 km²	**61..85**	**710**		**321**		**3.84**	**17.9d**	**29/03 1979**	**0.22**	**24/08 1976**	**7.0**	**2.80**	**0.82**
M.A: NRA-Y	Level: 3m Local Number: 8913102													
F.A.R: PGI	B.F.I: .85 Sensitivity:	1986	749	105	376	117	4.50	13.3d	10/01	0.47	12/11	8.0	4.29	0.93
Comment: Two tilting-gate weirs, each 7.2m wide, with thin-plate on the upper edges. Very flat gradient, occasionally drowns. Very low flows underestimated, early data under review. Appreciable PWS abstractions (variations available, but 9 a.m. readings only) otherwise sensibly natural. Residual flow of approx. 0.5 m^3s^{-1} normally maintained by limiting u/s abstraction. Contributing area partly defined by drainage network. # A predominantly rural catchment draining the Chalk outcrop of the Yorkshire Wolds.		1987	694	98	376	117	4.50	13.1d	08/04	0.74	29/09	8.4	4.19	1.11
		1988	663	93	379	118	4.53	13.9d	16/04	0.45	04/11	11.1	2.33	0.52
		1989	505	71	87	27	1.05	3.1d	12/01	0.39	13/11	1.9	0.97	0.48
		1990	625	88	83	26	0.99	8.4d	09/12	**0.07**	**10/01**	2.0	0.56	0.29
026003	**Foston Beck at Foston Mill** C.A: 57.2 km²	**59..85**	**736**		**374**		**0.68**	**3.3**	**15/02 1979**	**0.08**	**13/09 1973**	**1.5**	**0.57**	**0.19**
M.A: NRA-Y	Level: 6m Local Number: 8913120													
F.A.R: GN	B.F.I: .96 Sensitivity: 14.1	1986	749	102	437	117	0.79	1.9	07/05	0.29	04/12	1.2	0.83	0.32
Comment: Flows measured by a sharp-edged weir sluice gate. Theoretical rating. Pre-1976 the sluice position was not accurately recorded and the computed flows are less accurate. Small amount of groundwater abstractions. # A predominantly rural catchment draining the southern Chalk outcrop of the Yorkshire Wolds.		1987	709	96	365	98	0.66	1.6	07/04	0.29	08/10	1.2	0.56	0.30
		1988	679	92	371	99	0.67	1.8	20/03	0.23	19/12	1.3	0.54	0.24
		1989	494	67	103	28	0.19	0.3	23/05	0.09	10/12	0.2	0.21	0.10
		1990	636	86	78	21	0.14	0.9	08/12	**0.06**	**03/12**	0.2	0.13	0.07
026005	**Gypsey Race at Boynton** C.A: 240.0 km²	81-85	*781*		34		0.26	1.9	01/04 1981	0.00	03/11 1985	0.5	0.12	0.01
M.A: NRA-Y	Level: 17m Local Number: 8913004													
F.A.R: GI	B.F.I: .95 Sensitivity: 54.0	1986	738	94	46	135	0.35	1.1	06/05	0.01	30/10	0.8	0.37	0.01
Comment: Flat V weir. Replaced the gauge downstream at Bridlington (26004). Some groundwater abstractions. Baseflow dominated regime; the Gypsey Race ceases to flow during prolonged droughts. Topographical and groundwater divides not coincident. # Predominantly rural, pervious (Chalk) catchment draining the northern side of the Yorkshire Wolds.		1987	717	92	28	82	0.21	0.7	20/04	0.01	06/10	0.5	0.17	0.01
		1988	709	91	29	85	0.22	0.9	29/03	0.00	17/10	0.6	0.11	>0.00
		1989	500	64			0.00	0.0	18/12	0.00	30/05	0.0		
		1990	664	85		3	0.01	0.2	08/12	0.00	30/04	0.0	0.00	
026006	**Elmswell Beck at Little Driffield** C.A: 136.0 km²	1980			165		0.71	4.1	20/05 1981	0.01	01/11 1984	1.6	0.50	0.02
M.A: NRA-Y	Level: m Local Number: 8913185													
F.A.R: GN	B.F.I: .97 Sensitivity: 128.0	1986	785		160	97	0.69	1.6	06/05	0.02	05/12	1.5	0.70	0.02
Comment: Thin-plate weir. Subject to occasional drowning due to weedgrowth - d/s chart recorder will enable non-modular flows to be revised if necessary. Largely natural, baseflow dominated, regime but, possibly, a minor net export may occur (resulting from GW abstraction). # A rural catchment in the Yorkshire Wolds (Chalk).		1987	727		143	87	0.62	1.7	17/04	0.05	13/10	1.2	0.45	0.05
		1988	718		133	81	0.57	2.0	01/04	0.02	03/11	1.5	0.24	0.02
		1989	533		25	15	0.11	0.4	05/05	0.00	24/10	0.3	0.07	
		1990	656		21	13	0.09	0.5	02/03	0.00	01/01	0.4	0.01	
026008	**Mires Beck at North Cave** C.A: 41.9 km²													
M.A: NRA-Y	Level: m Local Number:													
F.A.R: N	B.F.I: Sensitivity:	1986	709		209		0.28	1.2	15/04	0.09	26/10	0.5	0.26	0.09
Comment: Crump weir. D/s analogue recorder maintained to monitor non-modular conditions. Abstractions can influence the pattern of low flows - normally baseflow dominated. # On south-west edge of Yorkshire Wolds. Spring source on scarp slope. Jurassic strata 50% in west, Upper Cretaceous Chalk in east. Completely Drift free. Rural catchment, mostly arable, some forest.		1987	726		220		0.29	1.1	20/10	0.11	02/10	0.5	0.28	0.14
		1988	619		176		0.23	0.8	22/03	0.05	02/10	0.5	0.16	0.07
		1989	551		60		0.08	0.4	16/12	0.03	04/11	0.1	0.07	0.04
		1990	568		65		0.09	0.7	28/12	0.02	07/10	0.2	0.08	0.02
027001	**Nidd at Hunsingore Weir** C.A: 484.3 km²	**35..85**	**970**		**531**		**8.16**	**271.8**	**17/10 1967**			**18.9**	**4.63**	**1.79**
M.A: NRA-Y	Level: 18m Local Number: 8912104													
F.A.R: SRPE	B.F.I: .50 Sensitivity: 11.4	1986	1135	117	654	123	10.04	118.3d	17/04	1.79	03/07	23.8	5.88	1.90
Comment: Broad-crested weir, breadth 49.8 m. Rated by formulae, subsequently by C/M gaugings. Insensitive. Operation of by-pass sluice in the 1980s caused difficulties; flows subsequently revised. Low flows monitored d/s at Skip Bridge since 1979. Heavily reservoired headwaters (Angram, Scar House, Gouthwaite influence runoff, the latter especially significant during drought conditions). Net export of water. # Geology: Mainly Millstone Grit, Magnesian limestone and some marls. Predominantly rural, rugged in headwaters.		1987	920	95	453	85	6.95	54.8d	07/04	1.80	10/08	15.4	4.72	2.11
		1988	1077	111	610	115	9.34	79.5d	02/01	1.84	23/06	20.5	5.13	2.20
		1989	836	86	376	71	5.77	78.9d	24/03	1.19	11/10	13.1	3.35	1.41
		1990	932	96	472	89	7.25	66.5d	25/01	1.06	15/09	20.1	2.57	1.17

		Period	Rainfall (mm)	% of pre-1986	Runoff (mm)	% of pre-1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
027002	**Wharfe at Flint Mill Weir** C.A: 758.9 km²	**55-85**	**1140**		**721**		**17.35**	**362.8**	**03/01**	**0.43**	**23/06**	**41.2**	**9.66**	**2.26**
M.A: NRA-Y	Level: 14m Local Number: 8912004								**1982**		**1957**			
F.A.R: SRPI	B.F.I: .39 Sensitivity: 14.2	1986	1366	120	897	124	21.58	229.0	05/03	2.64	27/07	55.8	13.40	2.94
Comment: Broad-crested masonry weir 47m wide with a current meter cableway 1.5km u/s (moved to new US station at Tadcaster in 1990). Insensitive at low flows. Level data only from 1936 to 1955. Recalibration(from 1965) completed but flows reprocessed from 1982 only. Pre-1965 data less reliable. Regulation effect of headwater reservoirs evident at low flows. Small net export of water (inc. Bradford supply). # Mixed geology mainly Carboniferous Limestone, grits and Coal Measures. Predominantly rural catchment with moorland headwaters.		1987	1095	96	642	89	15.44	187.3	27/03	3.25	29/05	35.2	9.25	3.77
		1988	1306	115	814	113	19.53	220.1	01/02	2.48	25/06	46.0	11.32	2.86
		1989	1009	89	532	74	12.80	203.6	24/03	2.10	25/06	32.8	6.49	2.40
		1990	1197	105	658	91	15.84	196.7	25/01	1.99	28/09	43.4	6.70	2.24
027003	**Aire at Beal Weir** C.A: 1932.1 km²	**58..85**	**979**		**586**		**35.90**	**339.6**	**01/04**	**3.45**	**18/10**	**75.9**	**23.81**	**9.21**
M.A: NRA-Y	Level: 6m Local Number: 8911805								**1969**		**1959**			
F.A.R: SPEI	B.F.I: .52 Sensitivity: 6.0	1986	1148	117	699	119	42.80	248.2	26/08	8.20	22/07	99.2	28.85	9.50
Comment: Broad-crested masonry weir, 33m wide. Gauged calibration cableway 4.5km u/s. Very high flows inundate extensive north bank washlands. By-passing via the Aire and Calder canal (flows now measured). Catchment is heavily reservoired (principally on the Calder system) and industrialised. Complex water utilisation; net import. # Mixed geology: Carb. Limestone, Millstone Grit and Coal Measures in the upper catchment; Magnesium Limestone and Marl and Triassic Sandstone at the lower end.		1987	943	96	547	93	33.49	217.2	07/04	10.97	01/06	63.4	24.95	13.05
		1988	1061	108	626	107	38.24	247.8	02/01	9.27	22/06	80.3	24.55	11.85
		1989	838	86	440	75	26.93	242.5	24/03	5.77	11/10	63.5	16.70	7.26
		1990	971	99	507	87	31.09	246.9	29/01	5.51	05/08	75.0	16.81	6.75
027005	**Nidd at Gouthwaite Reservoir** C.A: 113.7 km²	**36..85**	**1368**		**730**		**2.63**	**138.7**	**17/10**	**0.21**	**06/12**	**7.4**	**1.34**	**0.63**
M.A: NRA-Y	Level: 123m Local Number: 8912108								**1967**		**1964**			
F.A.R: SRP	B.F.I: .48 Sensitivity:	1986			842	115	3.03	52.2d	21/01	0.66	20/02	7.1	1.51	
Comment: Rectangular notch 12.2 m wide set in broad-crested weir (total width 29 m). Measures overflow and compensation/regulation releases from Gouthwaite Reservoir.		1987	1272	93	527	72	1.90	17.4d	08/04	0.66	04/02	4.6	1.51	
		1988	1482	108	787	108	2.83	48.8d	02/01	0.66	03/03	7.3	1.62	
		1989	1199	88	525	72	1.89	42.1d	23/03	0.23	07/10	5.9	0.89	0.49
		1990	1339	98	681	93	2.45	38.9d	26/02	0.35	12/08	7.4	0.77	
027006	**Don at Hadfields Weir** C.A: 373.0 km²	**65-85**	**1022**		**474**		**5.60**	**294.3**	**22/06**	**0.68**	**03/09**	**11.1**	**3.20**	**1.47**
M.A: NRA-Y	Level: 30m Local Number: 8910605								**1982**		**1976**			
F.A.R: SPGEI	B.F.I: .49 Sensitivity: 22.2	1986	1244	122	572	121	6.77	102.7	16/04	1.43	17/08	15.7	3.65	1.55
Comment: Broad-crested masonry weir, 45 m wide, rated by a current meter from a cableway 100m downstream (destroyed in 1989). Pre-1982 flows await reprocessing. The upper catchment is considerably reservoired and the impact on the flow regime is substantial - significant net loss of water from the catchment. # Mixed geology. Moorland headwaters contrast with the heavily urbanised lower catchment (now less industrial).		1987	958	94	404	85	4.78	75.4	07/04	1.59	04/09	9.0	3.21	1.80
		1988	1108	108	481	101	5.67	64.4	09/02	1.56	24/06	12.8	3.13	1.80
		1989	915	90	350	74	4.14	76.5	24/03	1.09	16/10	8.7	2.15	1.23
		1990	956	94	351	74	4.15	68.1	29/01	1.03	28/09	9.9	2.14	1.22
027007	**Ure at Westwick Lock** C.A: 914.6 km²	**58..85**	**1131**		**707**		**20.50**	**537.9**	**03/01**	**0.73**	**20/07**	**47.9**	**10.88**	**2.75**
M.A: NRA-Y	Level: 14m Local Number: 8912202								**1982**		**1972**			
F.A.R: SP	B.F.I: .39 Sensitivity: 10.6	1986	1297	115	911	129	26.42	271.9	26/08	2.72	21/07	70.3	15.62	2.92
Comment: Broad-crested masonry weir, 59m wide, rated by current meter from a cableway 0.26km d/s (replaced an earlier rated section a short distance d/s - Boroughbridge weir was thought to act as partial control). Nov.1975-Dec.1982 data awaits reprocessing; expected to increase flows. Reservoirs have significant effect on the Burn and Laver but moderate overall impact; some net export of water. # Mixed geology of limestone and grits. Large, predominantly rural catchment draining from the Pennines.		1987	1076	95	687	97	19.91	212.4	27/03	3.68	31/05	47.6	11.38	4.28
		1988	1235	109	843	119	24.39	235.1	02/02	2.84	24/06	55.8	14.15	3.39
		1989	942	83	570	81	16.54	242.1	24/03	1.57	08/10	46.1	6.81	2.23
		1990	1143	101	727	103	21.07	307.7	20/02	1.64	08/08	62.2	7.39	1.84
027009	**Ouse at Skelton** C.A: 3315.0 km²	**69..85**	**904**		**466**		**48.96**	**622.0**	**05/01**	**3.92**	**19/08**	**121.0**	**26.48**	**8.01**
M.A: NRA-Y	Level: 5m Local Number: 8912405								**1982**		**1976**			
F.A.R: SRPGI	B.F.I: .43 Sensitivity: 3.2	1986	1026	113	538	115	56.51	381.4	18/04	5.02	22/07	152.1	32.36	6.46
Comment: Velocity-area station with control exercised mainly by Naburn weir - but,since 1982 a rating independent of sluice-gate settings has been employed. Pre-1982 records are less reliable and will be reprocessed. PWS abstraction u/s - increasing impact on very low flows; some artificial GW augmentation now a counterbalancing influence. New US station commissioned 1992. # Mixed geology. Predominantly rural catchment draining the northern parts of the Vale of York and the Yorkshire Dales.		1987	906	100	451	97	47.45	309.7d	28/03	8.92	11/08	109.9	28.54	11.14
		1988	992	110	541	116	56.73	380.6	03/01	5.32	22/06	129.1	35.47	7.58
		1989	727	80	324	70	34.08	335.1	24/03	4.61	09/08	87.1	15.67	4.97
		1990	884	98	454	97	47.73	377.0	21/02	3.93	08/08	136.8	18.69	4.98
027021	**Don at Doncaster** C.A: 1256.2 km²	**59..85**	*810*		**412**		**16.42**	**200.5**	**23/06**	**2.62**	**27/09**	**35.4**	**10.68**	**5.24**
M.A: NRA-Y	Level: 4m Local Number: 8910908								**1982**		**1959**			
F.A.R: SPEI	B.F.I: .56 Sensitivity: 4.4	1986			527	128	20.99	173.5	17/04	4.91	28/09	49.8	13.32	5.63
Comment: Velocity-area station, 24m wide, with cableway. Station recalibrated in late 1970s following removal of rubble weir (low flow control). By-passing occurs via the Sheffield and Yorks navigation - flow now measured at Long Sandall Lock. Numerous artificial influences including the effects of the Don Valley reservoirs and imports of water for the urban areas. # Mixed geology: Millstone Grit (headwaters), Coal Measures, Magnesian Limestone and Trias sandstones. Moorland headwaters, urbanised valleys.		1987	800	99	422	102	16.82	166.4	07/04	5.70	01/10	30.8	12.29	6.79
		1988	840	104	424	103	16.84	143.2	10/02	4.97	21/09	35.0	10.37	6.08
		1989	729	90	319	77	12.71	144.0	14/12	3.52	27/09	25.6	6.75	4.08
		1990	737	91	338	82	13.45	163.6	28/01	3.51	31/08	29.1	6.94	4.00
027023	**Dearne at Barnsley Weir** C.A: 118.9 km²	**60-85**	**779**		**380**		**1.43**	**68.9**	**13/04**	**0.13**	**17/09**	**3.0**	**0.77**	**0.26**
M.A: NRA-Y	Level: 43m Local Number: 8910806								**1970**		**1961**			
F.A.R: GI	B.F.I: .47 Sensitivity: 13.5	1986	943	121										
Comment: Compound broad-crested weir, 12m wide rated by model tests. Some abstractions and gain of drainage water pumped from coal mines. # Mixed geology of Upper Carboniferous. Predominantly rural catchment.		1987	772	99	381	100	1.43					2.9	0.94	0.45
		1988	816	105	388	102	1.46	30.0	10/02	0.21	20/09	3.4	0.80	0.34
		1989	696	89	278	73	1.05	27.9	14/12	0.15	07/12	2.2	0.43	0.19
		1990	710	91	266	70	1.00	26.5	27/01	**0.08**	**03/08**	2.3	0.31	0.11
027025	**Rother at Woodhouse Mill** C.A: 352.2 km²	**61..85**	**777**		**381**		**4.25**	**105.4**	**23/06**	**0.39**	**14/06**	**9.1**	**2.61**	**0.98**
M.A: NRA-Y	Level: 29m Local Number: 8910304								**1982**		**1973**			
F.A.R: SRPGEI	B.F.I: .53 Sensitivity: 8.2	1986	899	116	515	135	5.76	60.3	10/01	1.36	17/07	13.1	3.34	1.49
Comment: Velocity-area station, 15m wide, with current meter cableway 35m downstream. The gauge is downstream of the washland storage scheme controlled by a regulator gate on the channel to pond water at times of high flow. Subsidence due to mining necessitates re-rating. # Mixed geology: principally Coal Measures, some valley alluvium. Land use is moorland headwaters and urbanised valleys.		1987	762	98	431	113	4.81	54.9	07/04	1.41	04/09	9.1	3.41	1.61
		1988	784	101	416	109	4.63	45.6	06/01	1.36	20/09	9.5	2.93	1.61
		1989	686	88	316	83	3.53	46.1	24/02	0.73	13/11	7.6	1.83	0.97
		1990	690	89	319	84	3.56	56.7	28/01	0.88	14/10	8.4	1.59	1.00
027026	**Rother at Whittington** C.A: 165.0 km²	**63..85**	**819**		**370**		**1.94**	**97.0**	**22/06**	**0.13**	**27/07**	**4.2**	**1.03**	**0.28**
M.A: NRA-Y	Level: 58m Local Number: 8910203								**1982**		**1976**			
F.A.R: SPGI	B.F.I: .46 Sensitivity: 13.5	1986	948	116	551	149	2.88	71.2	10/01	0.54	17/10	7.1	1.57	0.56
Comment: Shallow V weir replaced in November 1979 by a velocity-area station a short distance downstream. Rated by current meter cableway 50m upstream. Flows bypassing the station via Chesterfield canal have been measured at Wheeldon mill lock since October 1963 and are stored separately. Flows are affected by reservoirs in Rother valley and imports/exports of water.		1987	798	97	456	123	2.39	54.2	07/04	0.66	04/09	4.7	1.58	0.73
		1988	834	102	452	122	2.36	44.2	05/01	0.61	17/09	5.4	1.34	0.71
		1989	718	88	346	94	1.81	42.7	24/02	0.43	21/09	4.2	0.82	0.46
		1990	730	89	352	95	1.84	47.4	27/01	0.28	28/09	4.7	0.75	0.35
027028	**Aire at Armley** C.A: 691.5 km²	**61..85**	**1068**		**675**		**14.79**	**212.4**	**17/10**	**1.23**	**12/09**	**33.6**	**8.99**	**3.25**
M.A: NRA-Y	Level: 26m Local Number: 8911707								**1967**		**1971**			
F.A.R: SPEI	B.F.I: .48 Sensitivity: 9.4	1986			845	125	18.52	170.9	15/04	4.97	20/09	41.6	11.73	5.36
Comment: Broad-crested weir, 20m wide, rated for all flows by current meter cableway at the section. Pre-1971 data are less reliable. # Geology comprises predominantly Carboniferous Limestone in the headwaters down to Skipton, and Millstone Grit and Lower Coal Measures. Rural headwaters with considerable urban and industrial development downstream. Catchment includes station 27035.		1987			727	108	15.94	102.1	12/11	4.58	09/05	31.9	11.39	5.47
		1988			887	131	19.40	130.6	24/01	5.43	21/05	38.0	13.27	6.06
		1989			587	87	12.86	131.3	24/03	4.34	10/12	28.3	8.10	5.09
		1990			737	109	16.15	131.1	29/01	4.64	06/05	37.4	9.49	5.36

		Period	Rainfall (mm)	% of pre-1986	Runoff (mm)	% of pre-1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
027029	**Calder at Elland** C.A: 341.9 km²	**61..85**	**1285**		**806**		**8.74**	**411.3**	**27/10 1980**	**1.23**	**26/08 1984**	**18.5**	**5.29**	**2.30**
M.A: NRA-Y	Level: 58m Local Number: 8911203													
F.A.R: SPI	B.F.I: .50 Sensitivity: 3.9	1986			926	115	10.04	125.5	26/08	2.02	27/07	22.4	6.43	2.22
Comment: Broad crested masonry weir 53m wide with Crump profile notch for low flow measurement. Weir rated by current meter. Cableway 200m downstream. Water level recorder was resited nearer the river in 1980. Weir was breached in 1982, necessitating a new rating curve. Numerous reservoirs within the catchment. # Valley bottoms of lower catchment are heavily urbanised and industrialised. Valleys rise steeply to moorland predominantly covered by peat. The geology comprises Upper Carboniferous Millstone Grit Series.		1987			707	88	7.67	53.9	12/11	2.41	30/05	15.5	5.47	2.89
		1988			816	101	8.82	91.3	24/01	2.06	24/06	19.6	5.46	2.55
		1989			603	75	6.54	87.3	23/03	1.53	09/09	15.7	3.32	1.68
		1990			702	87	7.61	101.5	29/01	1.81	15/09	17.2	4.26	2.07
027030	**Dearne at Adwick** C.A: 310.8 km²	**63..85**	**713**		**344**		**3.39**	**58.4**	**13/04 1970**	**0.57**	**18/08 1976**	**6.8**	**2.27**	**1.06**
M.A: NRA-Y	Level: 13m Local Number: 8910803													
F.A.R: PGEI	B.F.I: .61 Sensitivity: 7.4	1986	863	121	422	123	4.16	43.9	17/04	1.15	28/09	8.4	2.73	1.39
Comment: Crump profile weir 5.5m wide with broad-crested flanking weirs. Flows greater than the capacity of the Crump profile weir are rated by current meter from a cableway 25m upstream. The flow regime is substantially affected by industrial water use and sewage effluent augmentation (appreciable net import of water). # Geology is primarily Coal Measures.		1987	731	103	375	109	3.70	45.6	07/04	1.40	13/07	6.4	2.88	1.63
		1988	713	100	350	102	3.44	35.9	10/02	1.13	20/09	7.1	2.33	1.39
		1989	643	90	251	73	2.47	36.4	14/12	0.91	21/08	4.8	1.50	1.01
		1990	638	89	263	76	2.59	39.8	28/01	0.80	05/08	5.5	1.46	0.87
027031	**Colne at Colne Bridge** C.A: 245.0 km²	**64..85**	**1163**		**583**		**4.53**	**272.1**	**16/10 1967**	**0.17**	**22/08 1976**	**9.6**	**2.68**	**0.71**
M.A: NRA-Y	Level: 48m Local Number: 8911102													
F.A.R: SPGI	B.F.I: .39 Sensitivity: 7.9	1986	1379	119	747	128	5.80	93.7	25/08	0.40	24/08	15.1	2.94	0.65
Comment: Curved broad-crested weir 52m wide with central Crump profile notch 3.8m wide for more accurate low flow measurement. Rated by a current meter at a cableway 0.2km downstream. High flow rating under review (1989). Substantial artificial influences due to numerous reservoirs. # Mixed geology with Millstone Grit in the upper catchment and Coal Measures in the lower part. Catchment comprises moorland headwaters with heavily urbanised valleys.		1987	1085	93	491	84	3.82	66.5	12/11	0.80	13/07	8.0	2.40	1.06
		1988	1284	110	640	110	4.96	96.6	02/01	0.64	24/06	10.8	2.85	0.88
		1989	1016	87	451	77	3.51					7.9	1.33	0.42
		1990	1133	97	463	79	3.59	109.8	29/01	0.32	09/09	8.3	1.39	0.49
027032	**Hebden Beck at Hebden** C.A: 22.2 km²	**66..85**	**1423**		**245**		**0.17**	**5.9**	**12/01 1984**	**0.01**	**30/08 1983**	**0.4**	**0.10**	**0.02**
M.A: NRA-Y	Level: 228m Local Number: 8911960													
F.A.R: P	B.F.I: .42 Sensitivity: 4.2	1986	1714	120	322	131	0.23	3.4	04/03	0.03	05/08	0.6	0.14	0.03
Comment: Thin-plate V notch (half 90 degree) in parallel with 3.35m wide Crump profile weir. V notch capacity limited by horizontal cut-off wall, at high flows it acts as a submerged orifice. Steep stream with heavy bedload - substantial upstream accretion, some erosion evident on weir surfaces. Some abstraction (27032 monitors residual flow), but predominantly natural flow regime. Numerous swallow holes and resurgences; true drainage area uncertain. # Upland catchment; mostly moorland developed on Carb. Limestone, Millstone Grit and shales.		1987	1351	95	240	98	0.17	4.2	21/08	0.04	26/05	0.4	0.11	0.05
		1988	1592	112	270	110	0.19	3.1	19/08	0.02	22/06	0.4	0.12	0.03
		1989	1270	89	186	76	0.13	3.0	22/03	0.02	09/10	0.3	0.06	0.02
		1990	1488	105	251	102	0.18	3.1	25/01	0.03	14/09	0.4	0.08	0.03
027034	**Ure at Kilgram Bridge** C.A: 510.2 km²	**67-85**	**1351**		**931**		**15.07**	**367.6**	**03/01 1982**	**0.28**	**25/08 1976**	**37.1**	**7.89**	**1.13**
M.A: NRA-Y	Level: 88m Local Number: 8912206													
F.A.R: N	B.F.I: .32 Sensitivity: 17.6	1986	1593	118	1203	129	19.47	266.3	26/08	0.79	22/07	52.1	10.31	1.09
Comment: Velocity-area station rated by current meter. Low flow control is exercised by the sill of Kilgram Bridge 70m d/s. Flows < 1 m^3s^{-1} underestimated, recalibration scheduled. Some floodplain storage. Largely natural regime; minor export of water - Thorton Steward abstraction (operational from 1977) is just upstream. # Geology is mainly Carboniferous Limestone and Millstone Grit. Rural catchment draining from the Pennines.		1987	1290	95	923	99	14.93	212.7	27/03	1.60	30/05	35.6	8.04	2.50
		1988	1477	109	1117	120	18.02	215.9	01/02	0.95	24/06	40.6	10.74	1.51
		1989	1158	86	776	83	12.55	223.8	23/03	0.50	26/07	31.7	4.76	0.80
		1990	1439	107	1005	108	16.26	292.9	19/02	0.29	06/08	45.3	5.70	0.58
027035	**Aire at Kildwick Bridge** C.A: 282.3 km²	**68..85**	**1162**		**675**		**6.04**	**98.1**	**05/12 1972**	**0.18**	**23/08 1976**	**15.0**	**3.06**	**0.48**
M.A: NRA-Y	Level: 87m Local Number: 8911503													
F.A.R: S	B.F.I: .37 Sensitivity: 15.8	1986	1277	110	858	127	7.68	64.9	15/04	0.54	03/10	20.0	4.10	0.65
Comment: Velocity-area station rated by current meter cableway 150m downstream. Low flow control is the sills of the bridge. Flows below one m^3s^{-1} underestimated - recalibration scheduled. Washland storage, minor reservoirs, and the Leeds-Liverpool Canal can influence the flow pattern but small overall impact; minor net export. # Geology is mainly Carboniferous Limestone with some Millstone Grit series. Rural catchment draining part of the eastern Pennines.		1987	1085	93	688	102	6.16	55.9	27/03	0.89	01/06	14.6	3.64	1.06
		1988	1283	110	914	135	8.16	62.4	02/01	0.41	24/06	19.8	4.55	0.62
		1989	953	82	519	77	4.64	59.4	23/03	0.35	04/10	12.4	1.88	0.41
		1990	1190	102	734	109	6.57	55.5	29/01	0.38	14/08	20.4	2.29	0.51
027038	**Costa Beck at Gatehouses** C.A: 7.8 km²	**70..85**	**711**		**2442**		**0.60**	**3.2**	**30/07 1978**	**0.34**	**02/10 1985**	**0.8**	**0.57**	**0.41**
M.A: NRA-Y	Level: 22m Local Number: 8912518													
F.A.R: G	B.F.I: .97 Sensitivity: 12.8	1986	759	107	2438	100	0.60	1.4	20/05	0.42	06/12	0.8	0.62	0.44
Comment: Crump profile weir 5m wide. Theoretical rating. Weedgrowth can cause drowning. Some bypassing of the gauge via West Drain. The data indicates that the groundwater catchment greatly exceeds the topographical catchment. Flows are predominantly natural apart from some pumping at Keldhead Spring and abstractions/returns from some cress beds and a trout farm. # Small rural catchment on the southern edge of the North York Moors. Geology is permeable Oolitic Limestone.		1987	744	105	2406	99	0.60	1.0	18/04	0.42	02/10	0.7	0.58	0.45
		1988	748	105	2474	101	0.61	1.1	01/07	0.46	07/11	0.8	0.57	0.48
		1989	458	64	1600	66	0.40	0.7	24/05	**0.32**	**21/11**	0.5	0.38	0.33
		1990	680	96	1524	62	0.38	2.5	08/12	**0.28**	**11/09**	0.5	0.34	0.30
027040	**Doe Lea at Staveley** C.A: 67.9 km²	**70-85**	**712**		**323**		**0.69**	**13.7**	**01/06 1983**	**0.06**	**27/08 1976**	**1.4**	**0.40**	**0.17**
M.A: NRA-Y	Level: 48m Local Number: 8910103													
F.A.R: GEI	B.F.I: .52 Sensitivity: 14.2	1986	843	118	424	131	0.91	13.4	20/05	0.18	02/10	1.9	0.50	0.22
Comment: Rectangular flume, throat width: 3m. Theoretical rating. Structure has been affected by mining subsidence, the flume is tilted. Artificial influences include a net import of water including mine drainage. # Mixed geology comprising Coal Measures, Permian Marls and Magnesium Limestone. Predominantly rural catchment and urbanised lower reaches.		1987	725	102	341	106	0.73	12.9	07/04	0.19	14/09	1.4	0.51	0.23
		1988	711	100	288	89	0.62	6.9	23/01	0.16	16/09	1.4	0.35	0.20
		1989	645	91	249	77	0.54	12.3	24/02	0.11	25/07	1.1	0.25	0.14
		1990	648	91	299	93	0.64	13.0	27/01	0.16	26/09	1.4	0.30	0.17
027041	**Derwent at Buttercrambe** C.A: 1586.0 km²	**73-85**	**795**		**341**		**17.15**	**124.8**	**05/01 1982**	**2.70**	**23/08 1976**	**35.1**	**12.98**	**4.92**
M.A: NRA-Y	Level: 10m Local Number: 8912807													
F.A.R: RPI	B.F.I: .69 Sensitivity: 6.1	1986	834	105	376	110	18.91	78.8	18/04	5.56	12/10	39.7	15.60	6.01
Comment: Crump weir, 20m wide; high flow rating derived from limited number of gaugings. Pre-October 1973 data (monthly only) of poorer quality; derives from Stamford Br.(27015) - slightly smaller catchment area (1586.0 km²). Peak flows from the headwaters upstream of Forge Valley (8% catchment) are diverted down the Sea Cut (27033). Minor net impact of artificial influences (spray irrigation is appreciable). # Mixed geology of clays, shales and limestone. Rural catchment draining the North York Moors.		1987	813	102	372	109	18.70	61.1	02/01	6.81	16/08	35.0	15.53	7.60
		1988	791	99	348	102	17.47	66.3	05/02	6.00	29/06	33.1	13.10	7.25
		1989	539	68	157	46	7.90	49.6	25/02	3.18	04/10	14.0	6.10	3.35
		1990	702	88	208	61	10.44	84.5	11/12	2.77	16/09	22.8	6.45	2.98
027042	**Dove at Kirkby Mills** C.A: 59.2 km²	**72-85**	**943**		**586**		**1.10**	**56.4**	**12/09 1976**	**0.13**	**26/08 1976**	**2.1**	**0.78**	**0.25**
M.A: NRA-Y	Level: 36m Local Number: 8912560													
F.A.R: N	B.F.I: .60 Sensitivity: 13.6	1986	1054	112	696	119	1.31	30.0	20/05	0.27	17/08	2.7	0.96	0.29
Comment: Flat V weir, 8m wide. Theoretical rating. Predominantly natural flows. Subsurface inflow from River Seven catchment (27057) may represent a significant proportion of summer baseflow. # A linear NNW-SSE trending catchment. Moorland headwaters, land use is largely rough grazing - a little forestry. Geology: principally Jurassic limestones, clays and sandstone.		1987	1008	107	700	119	1.31	21.4	26/08	0.40	20/08	2.2	1.03	0.46
		1988	920	98	606	103	1.13	12.3	23/07	0.27	25/06	2.1	0.85	0.35
		1989	658	70	307	52	0.58	8.7	24/02	0.16	30/09	1.1	0.40	0.17
		1990	809	86	439	75	0.82	27.0	27/01	0.15	04/09	1.8	0.43	0.16

		Period	Rainfall (mm)	% of pre-1986	Runoff (mm)	% of pre-1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
027043	**Wharfe at Addingham** C.A: 427.0 km²	**74..85**	**1395**		**1095**		**14.82**	**552.6**	**08/03 1979**	**0.82**	**25/08 1976**	**35.0**	**7.12**	**1.54**
M.A: NRA-Y	Level: 80m Local Number: 8911903													
F.A.R: SP	B.F.I: .33 Sensitivity: 10.0	1986	1644	118	1265	116	17.12	262.6	04/03	1.57	27/07	47.0	9.01	1.85
Comment: Crump profile crest, 12m wide (theoretical rating) in a broad-crested weir, 48m overall width. Current meter cableway 4km d/s (likley). Revised rating still to be applied to pre-1982 data - it will significantly reduce high flows. Flashy flow regime substantially influenced by reservoir operation (Grimwith regulation releases from June 1984). Sig. u/s abstraction at Lobwood also (from 1980). # Geology is Carboniferous limestone, shales and sandstones. Predominantly rural catchment.		1987	1318	94	926	85	12.54	197.3	27/03	2.13	29/05	29.7	6.45	2.67
		1988	1576	113	1155	105	15.60	236.9	23/12	1.27	24/06	38.4	8.38	1.68
		1989	1208	87	779	71	10.55	222.9	23/03	1.18	10/12	27.2	4.58	1.45
		1990	1491	107	1001	91	13.56	218.7	19/02	0.96	27/09	37.8	5.12	1.50
027044	**Blackfoss Beck at Sandhills Bridge** C.A: 47.0 km²	**74..85**	**689**		**288**		**0.43**	**15.9**	**21/01 1985**	**0.00**	**20/08 1976**	**1.0**	**0.20**	**0.04**
M.A: NRA-Y	Level: 6m Local Number: 8912835													
F.A.R: EI	B.F.I: .46 Sensitivity: 29.3	1986	683	99	280	97	0.42	9.8	15/04	0.05	24/08	0.9	0.25	0.06
Comment: Flat V weir, 4m wide. Theoretical rating. Low flow gauge, subject to drowning. High flows should be treated with caution. In summer 1984 the weir crest was lowered for land drainage requirements and its modular limit was reduced. Significant agricultural abstractions in summer. # Low-lying, rural catchment draining from the western side of the Yorkshire Wolds.		1987	664	96	271	94	0.40	11.4	21/10	0.06	15/09	0.8	0.24	0.07
		1988	680	99	292	101	0.43	12.1	19/03	0.06	29/06	0.8	0.19	0.07
		1989	464	67	91	32	0.14	3.4	25/02	0.03	17/08	0.3	0.08	0.03
		1990	575	83	134	47	0.20	10.7	08/12	0.02	03/08	0.4	0.06	0.03
027047	**Snaizeholme Beck at Low Houses** C.A: 10.2 km²	**72..85**	**1710**		**1710**		**0.55**	**13.6**	**21/12 1985**	**0.01**	**23/08 1984**	**1.6**	**0.20**	**0.03**
M.A: NRA-Y	Level: 260m Local Number: 8912290													
F.A.R: N	B.F.I: .19 Sensitivity: 36.1	1986	2071	121										
Comment: Flat V weir installed in 1985 superseded a limited capacity, wooden trapezoidal flume. Bypassing now less common; pre-1985 it was a feature of several floods each year. Structurefull now 0.95 metres. Flashy, natural regime but possibility of minor amount of spring water deriving from outside the topographical catchment. # Wet, steep catchment in the Pennines developed mainly on Carboniferous Limestone; some Millstone Grit on the south-eastern boundary. Land use is mostly rough grazing.		1987	1736	102											
		1988	1982	116	1923	112	0.62	**13.8**	**22/12**	0.01	23/06	1.7	0.26	0.02
		1989	1666	97	1492	87	0.48	12.1	23/03	**0.01**	**25/06**	1.3	0.12	0.01
		1990	2006	117	1834	107	0.59	**15.5**	**19/02**	0.01	04/08	1.6	0.18	0.02
027048	**Derwent at West Ayton** C.A: 127.0 km²	**72..85**	**887**		**68**		**0.27**	**2.8**	**23/06 1982**	**0.00**	**12/09 1984**	**0.5**	**0.25**	**0.05**
M.A: NRA-Y	Level: 34m Local Number: 8912708													
F.A.R: PG	B.F.I: .74 Sensitivity: 36.4	1986	906	102	61	90	0.24	1.7	26/08	0.00	10/10	0.5	0.20	0.08
Comment: Compound thin-plate weir, 11m wide. Theoretical rating. Catchment contains swallow holes; significant losses between 27/48 and a nearby upstream monitoring site (Forge Valley). High flows are diverted down the Sea Cut (27033). # Jurassic sandstone, limestone and shales. Predominantly rural catchment with substantial forest cover.		1987	858	97	84	124	0.34	1.9	26/08	0.04	09/07	0.7	0.28	0.06
		1988	835	94										
		1989	596	67	43	63	0.17	1.7	16/12	0.00	15/07	0.3	0.19	
		1990	779	88										
027049	**Rye at Ness** C.A: 238.7 km²	**74-85**	**895**		**499**		**3.78**	**74.1**	**12/09 1976**	**0.60**	**26/08 1976**	**7.3**	**2.79**	**0.89**
M.A: NRA-Y	Level: 26m Local Number: 8912505													
F.A.R: GN	B.F.I: .68 Sensitivity: 8.0	1986	960	107	514	103	3.89	41.5	05/03	0.99	12/10	7.1	3.25	1.05
Comment: Flat V weir, 12m wide. Theoretical rating. Significant groundwater abstractions. # Geology is Jurassic limestone, clays and sandstones. Predominantly rural catchment with moorland headwaters.		1987	950	106	557	112	4.22	68.1	26/08	1.50	20/08	7.2	3.46	1.72
		1988	900	101	493	99	3.72	21.6	30/06	1.11	24/06	6.6	2.90	1.37
		1989	633	71	217	43	1.64	15.7	25/02	**0.56**	**05/10**	3.0	1.34	0.59
		1990	770	86	295	59	2.23	25.0	29/01	**0.50**	**15/09**	5.2	1.38	0.56
027050	**Esk at Sleights** C.A: 308.0 km²	**70..85**	*944*		**493**		**4.81**	**358.7**	**25/03 1979**	**0.12**	**26/08 1976**	**10.5**	**2.26**	**0.67**
M.A: NRA-Y	Level: 5m Local Number: 8912903													
F.A.R: N	B.F.I: .38 Sensitivity: 7.9	1986	1013	107	776	157	7.57	207.4	26/08	0.66	17/08	18.2	2.83	0.74
Comment: Velocity-area station with broad-crested weir control (25m broad with fish-pass on left bank, 0.71m lower). Flow records 1970-76 based on formula only - may be inaccurate. Current meter rating developed by 1989 - reprocessing of data from 1977 completed. Sensibly natural flow regime. # Permeable headwaters (North York Moors Jurassic) thence mainly Middle Oolite and Middle Lias, extensive Drift cover. A rural catchment with moorland headwaters.		1987	946	100	624	127	6.09	211.5	26/08	0.98	20/08	11.3	3.43	1.22
		1988	860	91	471	96	4.58	69.2	01/02	0.80	25/06	9.7	2.55	0.95
		1989	643	68	228	46	2.23	41.7	11/04	0.43	23/08	4.0	1.23	0.45
		1990	859	91	419	85	4.09	141.1	27/01	0.40	05/09	8.2	1.32	0.44
027051	**Crimple at Burn Bridge** C.A: 8.1 km²	**72..85**	**838**		**440**		**0.11**	**7.4**	**09/12 1983**	**0.00**	**05/09 1976**	**0.3**	**0.05**	**0.01**
M.A: NRA-Y	Level: 112m Local Number: 8912120													
F.A.R: N	B.F.I: .31 Sensitivity: 54.0	1986	956	114	563	128	0.14	4.7	15/04	0.00	17/07	0.4	0.07	0.01
Comment: Flat V weir, 3.5m wide. Theoretical rating. Subcatchment flows have been measured by Leeds University. No artificial influences. # Geology is Carboniferous shales and grits. Rural catchment, mainly used for pasture.		1987	776	93	362	82	0.09	5.3	07/04	0.01	08/07	0.2	0.05	0.01
		1988	915	109	475	108	0.12	4.1	24/01	0.01	23/06	0.3	0.06	0.01
		1989	734	88	269	61	0.07	2.5	23/03	0.00	21/08	0.2	0.02	0.01
		1990	763	91	307	70	0.08	3.3	07/02	0.00	01/08	0.2	0.01	>0.00
027052	**Whitting at Sheepbridge** C.A: 50.2 km²	**76-85**	*897*		**550**		**0.88**	**49.2**	**22/06 1982**	**0.11**	**05/09 1976**	**1.9**	**0.48**	**0.18**
M.A: NRA-Y	Level: 70m Local Number: 8910220													
F.A.R: SE	B.F.I: .48 Sensitivity: 25.5	1986	1011	113	645	117	1.03	24.3	10/01	0.17	03/10	2.6	0.56	0.18
Comment: Crump weir, 5.98m wide. Theoretical rating. # Geology is Coal Measures: sandstones and shales. Industrialised catchment with moorland headwaters.		1987	818	91	536	97	0.85	19.6	07/04	0.22	02/10	1.8	0.57	0.25
		1988	891	99	537	98	0.85	16.3	05/01	0.19	20/09	2.0	0.47	0.22
		1989	745	83	388	71	0.62	14.4	24/02	0.14	22/08	1.5	0.29	0.15
		1990	.746	83	391	71	0.62	14.6	27/01	0.13	11/10	1.5	0.26	0.14
027053	**Nidd at Birstwith** C.A: 217.6 km²	**75..85**	*1321*		**756**		**5.21**	**204.4**	**13/01 1984**	**0.39**	**21/08 1984**	**12.7**	**2.65**	**1.01**
M.A: NRA-Y	Level: 67m Local Number: 8912106													
F.A.R: SRP	B.F.I: .44 Sensitivity: 9.9	1986	1462	111	893	118	6.16	154.7	15/04	0.93	20/08	13.9	2.92	0.98
Comment: Velocity-area station approximately 17m wide, rated by current metering (to 30 m^3s^{-1} only) from bridge at the section. Riffle control, may be subject to erosion. Heavily reservoired catchment with substantial effect on flows. # Geology is mostly Millstone Grit. Rural catchment.		1987	1143	87	547	72	3.77	60.4	20/10	1.01	10/08	8.0	2.46	1.09
		1988	1352	102	859	114	5.91	134.7	01/02	0.93	24/06	13.6	2.68	1.02
		1989	1068	81	528	70	3.64	194.0	23/03	0.46	09/10	8.1	1.87	0.65
		1990	1193	90	701	93	4.84	147.5	25/01	0.46	04/09	13.8	1.38	0.50
027054	**Hodge Beck at Cherry Farm** C.A: 37.1 km²	**74..85**	**978**		**594**		**0.70**	**17.4**	**21/03 1981**	**0.09**	**26/08 1976**	**1.5**	**0.46**	**0.15**
M.A: NRA-Y	Level: 38m Local Number: 8912570													
F.A.R: N	B.F.I: .53 Sensitivity: 16.7	1986	1098	112	665	112	0.78	10.5	20/05	0.15	27/07	1.6	0.50	0.16
Comment: Limited range Flat V weir, 6m wide. Theoretical rating. Superseded the gauge upstream at Bransdale (27010). Flows unaffected by artificial influences. # Geology is mainly shales and sandstones. Rural catchment.		1987	1042	107	645	109	0.76	11.0	23/11	0.22	01/06	1.3	0.54	0.25
		1988	936	96	544	92	0.64	8.1	01/02	0.15	24/06	1.2	0.43	0.18
		1989	695	71	297	50	0.35	10.8	22/07	0.11	30/09	0.7	0.24	0.12
		1990	821	84	448	75	0.53	10.6	27/01	0.10	16/09	1.1	0.25	-0.11
027055	**Rye at Broadway Foot** C.A: 131.7 km²	**74..85**	**925**		**566**		**2.36**	**82.3**	**21/03 1981**	**0.39**	**27/08 1984**	**4.1**	**1.46**	**0.55**
M.A: NRA-Y	Level: 38m Local Number: 8912508													
F.A.R: N	B.F.I: .58 Sensitivity: 22.3	1986	1032	112	609	108	2.54	52.4	04/03	0.62	24/08	4.8	1.73	0.68
Comment: Limited range Crump profile weir, 15m wide. Theoretical rating. Low modular limit, higher flows are only approximate. Sensibly natural regime. # Geology is Jurassic limestone, shales and sandstones. Rural catchment draining the Cleveland Hills.		1987	988	107	625	110	2.61	76.6	26/08	0.87	20/08	4.3	1.90	1.00
		1988	920	99	505	89	2.10	49.4	30/06	0.59	24/06	3.8	1.51	0.73
		1989	666	72	254	45	1.06	19.4	24/02	**0.36**	**29/09**	1.9	0.81	0.41
		1990	806	87	369	65	1.54	36.2	29/01	0.36	15/09	3.1	0.87	0.42

	Period	Rainfall (mm)	% of pre-1986	Runoff (mm)	% of pre-1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
027056 Pickering Beck at Ings Bridge C.A: 68.6 km²	**74..85**	**879**		**394**		**0.86**	**21.9**	**29/03 1979**	**0.14**	**24/08 1976**	**1.5**	**0.62**	**0.28**
M.A: NRA-Y Level: 28m Local Number: 8912515													
F.A.R: N B.F.I: .69 Sensitivity: 21.2	1986	897	102	495	126	1.08	10.7	18/04	0.34	16/10	1.9	0.76	0.35
Comment: Limited range Crump profile weir, 7m wide. Theoretical rating. Low modular limit, higher flows are only approximate. Flow unaffected by artificial influences. # Geology is mostly grits and limestones. Rural catchment draining parts of the North York Moors.	1987	871	99	422	107	0.92	8.6	26/08	0.35	20/08	1.5	0.76	0.40
	1988	855	97	469	119	1.02	6.9	22/03	0.32	27/06	2.3	0.67	0.35
	1989	585	67	176	45	0.38	1.9	25/02	0.17	20/08	0.7	0.34	0.18
	1990	788	90	307	78	0.67	21.1	08/12	0.15	23/09	1.4	0.33	0.16
027057 Seven at Normanby C.A: 121.6 km²	**74..85**	**952**		**482**		**1.86**	**127.7**	**09/12 1983**	**0.04**	**14/08 1976**	**3.6**	**0.88**	**0.22**
M.A: NRA-Y Level: 29m Local Number: 8912540													
F.A.R: N B.F.I: .38 Sensitivity: 22.3	1986	966	101	605	126	2.33	127.1	20/05	0.23	17/08	4.4	1.10	0.26
Comment: Limited range Crump profile weir, 8m wide. Theoretical rating. Low modular limit. Assumption of modularity implies high (and, possibly, lower) flows are of limited precision. Loss of water underground to the adjacent River Dove (27042) has significant impact on summer baseflow. # Geology is Jurassic Limestone, shales and sandstones. Rural catchment with moorland headwaters. Contains significant areas of forestry.	1987	942	99	521	108	2.01	66.4	26/08	0.36	20/08	3.8	1.17	0.41
	1988	896	94	424	88	1.63	34.9	22/07	0.26	24/06	3.5	0.98	0.33
	1989	616	65	182	38	0.70	34.1	24/02	0.14	22/08	1.3	0.40	0.15
	1990	805	85	392	81	1.51	110.3	27/01	0.12	04/08	2.6	0.43	0.14
027058 Riccal at Crook House Farm C.A: 57.6 km²	**74..85**	**867**		**257**		**0.47**	**18.4**	**03/01 1982**	**0.16**	**31/08 1976**	**0.8**	**0.27**	**0.20**
M.A: NRA-Y Level: 30m Local Number: 8912580													
F.A.R: N B.F.I: .66 Sensitivity: 15.0	1986	930	107	289	112	0.53	12.3	20/05	0.19	14/10	1.0	0.30	0.20
Comment: Limited range Flat V weir, 4m wide. Theoretical rating. Low modular limit, higher flows are only approximate. # Geology is shales, sandstones and limestones. Rural catchment draining the North York Moors.	1987	925	107	267	104	0.49	7.1	21/10	0.25	09/08	0.9	0.33	0.25
	1988	872	101	245	95	0.45	6.8	30/11	0.22	23/06	0.8	0.31	0.24
	1989	605	70	137	53	0.25	3.0	24/02	0.18	06/10	0.3	0.22	0.19
	1990	745	86	190	74	0.35	10.4	27/01	0.17	11/09	0.7	0.22	0.18
027059 Laver at Ripon C.A: 87.5 km²	**77..85**	*991*		**400**		**1.11**	**39.1**	**28/12 1978**	**0.05**	**29/08 1984**	**2.4**	**0.54**	**0.13**
M.A: NRA-Y Level: 30m Local Number: 8912220													
F.A.R: SP B.F.I: .42 Sensitivity: 13.4	1986	1005	101	437	109	1.21	36.9	17/04	0.13	07/10	2.9	0.60	0.14
Comment: Crump profile weir, 10m wide. Theoretical rating. Insensitive at low flows, but a notch in the stilling basin toe wall could be used for very low flow measurement. Small export of water. # Geology is mostly Millstone Grit and Magnesian Limestone. A predominantly rural catchment below moorland (Pennine) headwaters. There are some swallow holes in the lower part of the catchment which contribute to the relatively large average loss.	1987	859	87	339	85	0.94	21.9	07/04	0.16	05/08	1.9	0.57	0.20
	1988	1001	101	428	107	1.18	18.8	09/02	0.18	24/06	2.6	0.61	0.22
	1989	720	73	241	60	0.67	18.5	23/03	0.06	20/09	1.5	0.32	0.07
	1990	826	83	294	74	0.82	22.2	29/01	**0.05**	**16/09**	2.2	0.23	0.06
027060 Kyle at Newton On Ouse C.A: 167.6 km²	**79-85**	**678**							**0.10**	**24/07 1984**		**0.94**	**0.17**
M.A: NRA-Y Level: 6m Local Number: 8912480													
F.A.R: G B.F.I: .09 Sensitivity: 27.0	1986	668	99						0.16	12/10		1.03	0.19
Comment: Theoretically rated Flat V weir, 6m wide. Flow record very inaccurate above the low flow range; weir subject to drowning due to backing up from the Ouse - confluence is just d/s. High flows and runoff totals erroneous - substantial overestimation. Monitoring of downstream levels provides the potential to compute more realistic runoff data in the future. # Flat rural catchment draining part of the Vale of York. Triassic sandstones and marls.	1987	687	101						0.26	15/08		1.13	0.33
	1988	719	106						0.20	24/06		1.45	0.25
	1989	440	65						**0.08**	**21/09**		0.25	0.10
	1990	558	82						0.09	22/10		0.25	0.12
027061 Colne at Longroyd Bridge C.A: 72.3 km²	**78-85**	**1417**		**677**		**1.55**	**38.9**	**21/03 1981**	**0.11**	**26/08 1984**	**3.4**	**0.85**	**0.32**
M.A: NRA-Y Level: 73m Local Number: 8911104													
F.A.R: SPGI B.F.I: .39 Sensitivity: 12.3	1986	1540	109	784	116	1.80	27.0	10/01	0.19	20/08	4.5	0.89	0.30
Comment: Limited range Flat V weir, 12m wide. Theoretical rating. Reservoirs in catchment. # Geology is Millstone Grit. Moorland headwaters with urban and industrial development in the lower catchment.	1987	1216	86	543	80	1.25	19.7	16/10	0.25	21/08	2.8	0.74	0.36
	1988	1448	102	750	111	1.71	28.5	07/07	0.39	23/06	3.9	0.99	0.46
	1989	1150	81	500	74	1.15	34.1	23/03	0.14	04/09	2.6	0.54	0.23
	1990	1293	91	493	73	1.13	33.1	29/01	0.15	16/09	2.5	0.58	0.22
027062 Nidd at Skip Bridge C.A: 516.0 km²	**79..85**	**1019**						**09/12 1983**	**1.07**	**30/08 1984**		**4.66**	**1.81**
M.A: NRA-Y Level: 8m Local Number: 8912102													
F.A.R: SRPEI B.F.I: .29 Sensitivity: 6.0	1986	1102	108					17/04	1.84	18/07		5.69	1.92
Comment: Limited range Flat V weir, 17m wide. Subject to drowning and inaccurate at high flows - intended for use in conjunction with the gauge at Hunsingore (27001 see page 53) which is insensitive at low flows. Heavily reservoired headwaters of the Nidd and Washburn valleys have a significant effect on flows, Gouthwaite Reservoir outflows especially significant in drought conditions. # Geology: Carboniferous Millstone Grits, Permian Marls and Triassic sandstones. Predominantly rural, rugged in headwaters.	1987	900	88					07/04	1.95	10/08		4.68	2.18
	1988	1049	103					02/01	1.80	24/06		5.11	2.18
	1989	810	79					24/03	1.14	11/10		3.19	1.35
	1990	902	89					25/01	**1.03**	**15/09**		2.62	1.12
027064 Went at Walden Stubbs C.A: 83.7 km²	**79-85**	*601*		**250**		**0.66**	**21.7**	**01/06 1983**	**0.17**	**25/10 1985**	**1.2**	**0.42**	**0.20**
M.A: NRA-Y Level: 6m Local Number: 8910920													
F.A.R: I B.F.I: .61 Sensitivity: 14.7	1986	742	123	270	108	0.72	8.9	30/01	0.18	07/10	1.5	0.45	0.20
Comment: Flat V weir, 7m wide, 1:10 cross-slope. Some water could travel underground, bypassing the gauge to emerge downstream. All but highest flows contained. Weir can become non-modular. Some net export of water (sewage effluent). # Rural catchment with scattered settlements developed on Carboniferous and Permian formations (mostly shales, sandstones and limestones).	1987	659	110	252	101	0.67	13.4	07/04	0.23	01/10	1.2	0.49	0.27
	1988	632	105	227	91	0.60	6.0	06/01	0.23	30/09	1.2	0.39	0.25
	1989	559	93	147	59	0.39	5.5	13/04	**0.16**	**06/09**	0.7	0.27	0.18
	1990	523	87	144	58	0.38	10.4	28/01	**0.13**	**26/07**	0.7	0.23	0.14
027065 Holme at Queens Mill C.A: 97.4 km²	**79..85**	*1171*		**742**		**2.29**	**59.8**	**09/12 1983**	**0.27**	**26/08 1984**	**4.8**	**1.27**	**0.52**
M.A: NRA-Y Level: 68m Local Number: 8911003													
F.A.R: SRI B.F.I: .49 Sensitivity: 9.7	1986	1493	127	857	115	2.65	28.5	16/04	0.34	17/08	6.6	1.47	0.53
Comment: Flat V weir, 11m wide, 1:10 cross-slope. Full range. Reservoirs in headwaters- compensation releases from Holmebridge group affects flow pattern. Net export of water from the catchment. # Predominantly Millstone Grit, some Coal Measures in lower catchment. Moorland headwaters; urban and industrial development in the lower catchment.	1987	1165	99	618	83	1.91	19.7	16/10	0.50	16/08	3.9	1.32	0.70
	1988	1402	120	779	105	2.40	35.2	02/01	0.50	23/06	5.3	1.36	0.58
	1989	1118	95	563	76	1.74	**60.6**	**23/03**	0.27	10/09	4.1	0.84	0.35
	1990	1230	105	597	80	1.84	35.0	26/12	0.33	14/08	4.6	0.86	0.38
027066 Blackburn Brook at Ashlowes C.A: 42.8 km²	81-85	*733*		217		0.29	41.1	22/06 1982	0.00	15/08 1988	0.7	0.11	0.01
M.A: NRA-Y Level: 33m Local Number: 8910660													
F.A.R: B.F.I: .29 Sensitivity: 53.8	1986	923	126	246	113	0.33	8.4	16/04	0.01	22/07	0.9	0.14	0.02
Comment: Flat V weir. All flows contained but high flow record suspect - weir subject to drowning as a result of backing-up from the Don (flows assume modularity; overestimation can be considerable). # Catchment developed largely on Carboniferous formations (Coal Measures). Large urban fraction (northern Sheffield).	1987	762	104	209	96	0.28	9.0	07/04	0.02	01/06	0.7	0.15	0.05
	1988	773	105	195	90	0.26	7.8	09/02	0.02	19/09	0.7	0.12	0.04
	1989	690	94	155	71	0.21	7.0	14/12	0.01	29/09	0.5	0.05	0.01
	1990	684	93	150	69	0.20	8.7	27/01	0.01	11/09	0.5	0.04	0.01

		Period	Rainfall (mm)	% of pre-1986	Runoff (mm)	% of pre-1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
027067	**Sheaf at Highfield Road** C.A: 49.1 km²	81-85	*873*		414		0.64	59.0	22/06	0.07	30/08	1.3	0.33	0.10
M.A: NRA-Y	Level: 54m Local Number: 8910402								1982		1984			
F.A.R:	B.F.I: .44 Sensitivity: 20.5	1986	1083	124	520	126	0.81	15.1	10/01	0.09	07/10	2.1	0.46	0.10
Comment: Flat V weir, 1:10 cross-slope. Structure drowns as a result of backing-up from the River Don (culvert blockage may also be significant). Modular limit to be determined. No reservoirs in catchment. # Steep catchment developed on Carboniferous formations: Millstone Grit and Coal Measures. Very substantial urban development (Sheffield) below Pennine headwaters.		1987	854	98	389	94	0.61	15.5	07/04	0.12	21/08	1.3	0.41	0.16
		1988	974	112	421	102	0.65	13.6	02/01	0.12	23/06	1.5	0.37	0.15
		1989	785	90	307	74	0.48	11.9	21/12	0.07	28/09	1.2	0.20	0.08
		1990	802	92	305	74	0.48	10.8	28/12	0.05	04/09	1.2	0.17	0.07
027068	**Ryburn at Ripponden** C.A: 33.0 km²	81-85			555		0.58	16.2	14/03	0.10	02/09	1.1	0.35	0.17
M.A: NRA-Y	Level: 97m Local Number: 8911240								1982		1984			
F.A.R:	B.F.I: .56 Sensitivity: 25.7	1986			674	121	0.71	10.9	30/12	0.22	17/10	1.6	0.40	0.23
Comment: Flat V weir, 1:20 cross-slope. Sited close to the confluence of two reservoired catchments - of limited hydrological value.		1987			456	82	0.48	7.3	12/11	0.21	29/05	0.9	0.36	0.23
		1988			601	108	0.63	11.6	02/01	0.22	21/09	1.3	0.36	0.23
		1989			409	74	0.43	9.4	23/03	0.16	18/10	0.8	0.25	0.20
		1990												
027069	**Wiske at Kirby Wiske** C.A: 215.5 km²	**80-85**	***640***		**530**		**3.62**	**98.0**	**05/02**	**0.15**	**27/08**	**9.6**	**0.70**	**0.24**
M.A: NRA-Y	Level: 20m Local Number: 8912320								**1984**		**1984**			
F.A.R:	B.F.I: .18 Sensitivity: 4.8	1986	717	112	614	116	4.20	109.1	26/08	0.23	12/10	11.5	0.81	0.26
Comment: Flat V weir (theoretical rating modularity assumed). Subject to drowning; backing-up from Swale (d/s weedgrowth can also affect low flows).Reverse flows observed under low flow conditions. Flows should be treated with caution. Little artificial disturbance to the flow regime. # A low-lying, largely rural catchment developed mostly on Permian/Triassic formations (sandstones and mudstones), with extensive Drift cover.		1987	722	113	568	107	3.88	62.5	21/10	0.28	09/07	12.0	0.94	0.34
		1988	696	109	508	96	3.46	81.7	02/02	0.25	24/06	9.0	0.79	0.31
		1989	453	71	136	26	0.93	64.9	24/03	0.14	02/10	1.0	0.29	0.16
		1990	602	94	372	70	2.54	108.2	20/02	0.13	06/08	3.6	0.27	0.15
027070	**' Eller Beck at Skipton** C.A: 35.3 km²	81..85			1442		1.61	104.6	09/12	0.03	09/07	2.0	0.38	0.07
M.A: NRA-Y	Level: m Local Number: 8911530								1983		1984			
F.A.R: N	B.F.I: .19 Sensitivity:	1986	1159		1555	108	1.74	74.4	15/04	0.09	18/07	3.0	0.51	0.10
Comment: Compound Crump weir with wooden divide piers (added in early 1980s). Backing-up from the Aire causes drowning. Downstream recorder installed but processed flows assume modularity. Sensibly natural regime (occasional abstraction to support the Leeds/Liverpool canal). # Drains from Pennine Fells - largely Carboniferous Limstone. Land use is mostly rough grazing, some forest.		1987	1006		1050	73	1.18	66.1	27/03	0.14	27/05	1.5	0.43	0.17
		1988	1148		1820	126	2.03	67.1	19/08	0.09	24/06	3.5	0.44	0.12
		1989	879		631	44	0.71	61.1	23/03	0.08	30/09	1.2	0.25	0.09
		1990	1081		1299	90	1.45	60.0	25/01	0.07	04/08	2.3	0.25	0.08
027071	**Swale at Crakehill** C.A: 1363.0 km²	**55..85**	**852**		**451**		**19.50**	**255.7**	**07/03**	**0.86**	**27/09**	**42.2**	**12.15**	**3.67**
M.A: NRA-Y	Level: 12m Local Number: 8912302								**1963**		**1959**			
F.A.R: N	B.F.I: .48 Sensitivity: 7.6	1986	946	111	544	121	23.50	199.8	27/08	3.51	18/07	58.3	15.00	3.96
Comment: Crump profile weir with high flow calibration based on u/s cableway (at Leckby Grange). Flows prior to June 1980 derived exclusively from Leckby Grange (station 027008, C.A.: 1345.6 sq.kms - variable low flow control, weedgrowth especially severe in 1976 - July/Aug. flows estimated). Sensibly natural regime, flashy response. # Rural catchment draining the northern Yorkshire Dales, lower catchment in the flat Vale of York. Mixed geology - mainly limestones, sandstones (especially below Richmond) and shales; covering of Boulder Clay.		1987	880	103	488	108	21.11	145.7	21/10	5.01	09/07	48.1	13.05	5.56
		1988	918	108	512	114	22.08	171.7	02/02	3.63	24/06	48.6	13.93	4.65
		1989	652	77	291	65	12.58	142.2	24/03	2.25	04/10	27.8	6.81	2.61
		1990	824	97	385	85	16.64	192.9	20/02	1.94	06/08	49.4	6.80	2.18
027072	**Worth at Keighley** C.A: 71.7 km²	**81-85**	***1176***		**623**		**1.42**	**21.7**	**02/01**	**0.13**	**19/08**	**3.2**	**0.76**	**0.28**
M.A: NRA-Y	Level: 97m Local Number: 8911403								**1982**		**1984**			
F.A.R:	B.F.I: .50 Sensitivity: 13.1	1986	1421	121	727	117	1.65	21.1	15/04	0.29	05/10	3.7	1.01	0.34
Comment: Limited range Flat V weir, 1:10 cross-slope. At higher flows the structure is substantially bypassed.		1987	1125	96	546	88	1.24	12.1	12/11	0.43	29/05	2.4	0.86	0.48
		1988	1344	114	680	109	1.54	17.2	24/01	0.38	24/06	3.1	1.00	0.44
		1989	1093	93	471	76	1.07	15.5	23/03	0.19	04/10	2.5	0.70	0.22
		1990	1266	108	547	88	1.24	17.0	29/01	0.21	13/08	3.0	0.66	0.23
027073	**Brompton Beck at Snainton Ings** C.A: 12.9 km²	81-85	*751*		726		0.30	1.2	08/01	0.07	26/10	0.5	0.25	0.09
M.A: NRA-Y	Level: m Local Number: 8912760								1982		1984			
F.A.R: GN	B.F.I: .91 Sensitivity: 43.2	1986	783	104	769	106	0.31	0.9	05/02	0.03	23/11	0.6	0.26	0.03
Comment: Crump Weir. Full range and modular. Stable and sensibly natural regime.Topographical and groundwater divides differ considerably. # A mainly permeable (Corallion) catchment. Rural.		1987	768	102	729	100	0.30	0.7	10/04	0.11	19/08	0.5	0.29	0.12
		1988	708	94										
		1989	476	63	150	21	0.06	0.2	17/04	0.00	04/10	0.1	0.07	0.01
		1990	690	92	224	31	0.09	0.8	12/12	0.00	08/10	0.2	0.04	>0.00
027074	**Spen Beck at Northorpe** C.A: 46.3 km²	82-85	*726*		561		0.82	20.3	09/12	0.23	26/08	1.6	0.52	0.30
M.A: NRA-Y	Level: 41m Local Number: 8911385								1983		1984			
F.A.R:	B.F.I: .57 Sensitivity: 20.2	1986	965	133	649	116	0.95	18.3	15/04	0.28	12/10	2.0	0.60	0.32
Comment: Crump Weir. Downstream recorder, but processed flows assume modularity; backing-up from the Calder causes occasional drowning. Sewage effluent component evident on hydrograph (some STW have closed but still a net import to the catchment). # A largely urban catchment developed mostly on Coal Measures.		1987	802	110	538	96	0.79	15.3	07/04	0.29	16/08	1.3	0.59	0.36
		1988	835	115	582	104	0.85	13.8	18/08	0.34	01/06	1.5	0.58	0.38
		1989	644	89	451	80	0.66	9.8	30/06	0.27	19/08	1.2	0.47	0.33
		1990	771	106	528	94	0.77	11.1	28/12	0.27	08/08	1.4	0.50	0.32
027075	**Bedale Beck at Leeming** C.A: 160.3 km²	83-85			395		2.01	99.7	04/02	0.24	30/08	2.7	0.94	0.30
M.A: NRA-Y	Level: m Local Number: 8912330								1984		1984			
F.A.R:	B.F.I: .45 Sensitivity:	1986			531	134	2.70	121.3	26/08	0.38	12/10	4.9	1.18	0.41
Comment: Flat V weir, 1:10 cross-slope. High flow record is suspect - the structure drowns as a result of backing-up from the Swale (a chart recorder monitors d/s levels but processed flows assume modularity). Considerable spray irrigation in the lower reaches otherwise minimal artificial impact on flow regime. # Rural, W-E trending catchment draining from Bellerby Moor.		1987	714		397	101	2.02	45.5	27/03	0.46	17/08	3.4	1.21	0.50
		1988	772		460	116	2.33	70.1	01/02	0.43	23/06	4.3	1.14	0.50
		1989	516		223	56	1.13	66.3	24/03	0.23	30/09	1.8	0.52	0.27
		1990	668		361	91	1.84	106.6	20/02	0.24	03/08	3.5	0.47	0.28
027076	**Bielby Beck at Thornton Lock** C.A: 103.1 km²	83-85			147		0.48		09/12	0.02	01/08	1.0	0.29	0.03
M.A: NRA-Y	Level: m Local Number: 8912830								1983		1984			
F.A.R:	B.F.I: .62 Sensitivity:	1986			130	88	0.42		15/04	0.04	12/08	0.9	0.33	0.05
Comment: Flat V weir, 1:10 cross-slope. Drowns at high flows (backing-up from the Derwent). Complementary to Pocklington Canal (Station 27861) - summation of flows, plus u/s canal abstraction, required for total catchment response. Significant spray irrigation in spring/summer. # Headwaters below the scarp of the Yorkshire Wolds but catchment is low-lying. Predominantly rural.		1987			127	86	0.41		07/04	0.05	15/09	0.8	0.30	0.06
		1988			133	90	0.43		19/03	0.06	30/06	1.0	0.21	0.07
		1989			41	28	0.14		21/12	0.02	26/07	0.3	0.10	0.02
		1990	612		51	35	0.17		08/12	0.01	25/07	0.4	0.06	0.01
027077	**Bradford Beck at Shipley** C.A: 58.0 km²	83-85			352		0.65	34.3	17/09	0.12	27/08	1.2	0.34	0.14
M.A: NRA-Y	Level: m Local Number: 8911650								1984		1984			
F.A.R: 1	B.F.I: .48 Sensitivity:	1986	1078		469	133	0.86	33.3	15/04	0.16	16/10	1.9	0.54	0.17
Comment: Flat V weir, 1:10 cross-slope in a relatively steep channel. Processed flows assume modularity. Some import of water (storm overflows which make for an even flashier regime) otherwise net effect of abstractions and discharges is small. # A heavily urbanised catchment.		1987	864		343	97	0.63	22.4	07/04	0.18	10/08	1.2	0.44	0.21
		1988	977		406	115	0.74	27.5	07/06	0.20	24/06	1.5	0.46	0.23
		1989	773		299	85	0.55	25.4	18/02	0.15	10/10	1.3	0.32	0.17
		1990	923		334	95	0.61	17.2	28/12	0.12	11/09	1.4	0.31	0.14

	Period	Rainfall (mm)	% of pre-1986	Runoff (mm)	% of pre-1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
027080 **Aire at Fleet Weir** C.A: 865.0 km²	85-85						144.7	21/12 1985	6.00	03/11 1985			
M.A: NRA-Y Level: m Local Number: 8911703													
F.A.R: PEI B.F.I: .53 Sensitivity:	1986			765		20.98	196.1	15/04	4.54	11/10	47.7	14.05	5.00
Comment: Large Crump weir with fish pass. Station to be superseded in 1993.	1987	928		600		16.46	124.0	07/04	5.09	27/05	31.8	12.21	6.33
Significant artificial disturbance to runoff regime. Leeds STW is u/s, the Aire and	1988	1074		729		19.95	137.0	24/01	4.91	20/06	40.1	13.30	6.23
Calder Navigation canal bypasses the station, complex pattern of water utilisation	1989	827		492		13.50	133.3	24/03	3.79	09/10	28.5	8.57	4.28
in the lower catchment. # A largely impervious catchment developed mainly on	1990	975		595		16.31	133.8	29/01	4.12	13/08	39.6	8.33	4.50
Carboniferous Limestone (headwaters), Millstone Grit and Lower Coal Measures.													
Rough grazing in Pennine headwaters contrasts with very considerable urban and													
industrial development below Skipton.													
027081 **Outton Beck at Farrer Lane** C.A: km²													
M.A: NRA-Y Level: m Local Number:													
F.A.R: B.F.I: Sensitivity:	1986	791											
Comment: Flat V weir - 1:10 cross-slope - with fish pass. Substantial modular	1987	698				0.19	2.9	07/04	0.04	10/08	0.4	0.15	0.06
range. # A small impervious (Coal Measures) catchment with significant	1988	698				0.17	2.1	05/01	0.04	23/06	0.4	0.10	0.05
urban/suburban development. Catchment is traversed by both the M1 and M62.	1989	542				0.08	1.6	13/04	0.02	09/09	0.2	0.06	0.02
	1990	578				0.10	2.6	27/01	0.01	16/09	0.3	0.05	0.02
027082 **Cundall Beck at Bat Bridge** C.A: km²													
M.A: NRA-Y Level: m Local Number: 8912311													
F.A.R: B.F.I: .51 Sensitivity:	1986												
Comment: Flat V weir, 1:10 cross-slope (superseded an original sharp-edged	1987	650				0.18	7.1	21/10	0.06	13/07	0.3	0.12	0.07
weir). Drowning is rare and flow regime is subject to only modest disturbance-some	1988	688				0.22	4.4	23/07	0.05	21/06	0.3	0.11	0.07
augmentation from groundwater can occur in the summer when spray irrigation	1989	442				0.08	2.0	25/02	0.02	05/09	0.1	0.07	0.03
demand can be significant. # A low-lying, relatively flat catchment -developed on	1990	587				0.12	4.4	27/01	0.02	25/07	0.2	0.06	0.03
Permo-Triassic sandstones- draining to the Swale. Land use is dominantly													
agricultural.													
027084 **Eastburn Beck at Crosshills** C.A: 43.4 km²													
M.A: NRA-Y Level: m Local Number:													
F.A.R: B.F.I: Sensitivity:	1986												
Comment: Flat V weir, 1:10 cross-slope. All flows contained. Heavy	1987												
sediment/gravel loads. Backing-up from the Aire causes drowning at high flows;	1988												
d/s levels monitored but processed flows assume modularity. # Steep Pennine	1989			486		0.67	25.1	22/03	0.05	30/09	1.7	0.28	0.06
catchment, developed on Millstone Grit, draining to the Aire. Largely moorland with	1990			629		0.86	24.1	24/08	0.05	05/08	2.5	0.33	0.07
rough grazing the principal land use.													

Summary of Archived Data - 1

Gauged daily flows, monthly peaks and monthly rainfall

Stn. number	Gauged daily flows, monthly peaks and rainfall			
021031	50s	------eAAB	60s	AEAAAAAAAA
	70s	AAAAAAAAAE	80s	e----††††
	90s	††		
021032	60s	-----eAAA	70s	AAAAAAAEAA
	80s	AAAE--†††E	90s	EAe
022001	60s	--fffbAAA	70s	AAAAAAAAAA
	80s	AAAAAABAAA	90s	AAe
022002	50s	-------eAA	60s	EAEAAAAAAA
	70s	AAAAAAAAAA	80s	e----††††
	90s	††		
022003	50s	-------eAA	60s	BAEAAAAAAA
	70s	AAAAAAAAAA	80s	e----††††
	90s	††		
022004	60s	------eAAA	70s	AAAAAAAAAE
	80s	E†††--††††	90s	††
022006	60s	------eDAA	70s	DAAAAAAAAA
	80s	BAAAAAAAAA	90s	AAe
022007	60s	-------†EA	70s	AAAAAAAAAA
	80s	AAAAAAAAAD	90s	AAe
022008	60s	--------E	70s	AAAAAAABAA
	80s	AAAE††††††	90s	††
022009	70s	--EDAAAAAA	80s	AAAAAAAAAA
	90s	AAe		
023001	50s	-----eAAA	60s	AAAAEAAAAA
	70s	AAAAAAAAAA	80s	AAAAAAAAAA
	90s	ABe		
023002	50s	----fCCCCB	60s	AAAAAAAAAA
	70s	AAABAAAAAA	80s	AAAAAAAAEA
	90s	DAe		
023003	50s	--------e	60s	AAAAAAAADA
	70s	AAAABAAAAA	80s	EAEAAAAAEA
	90s	AAe		
023004	60s	--eAAAAAAA	70s	AAEAAAABAA
	80s	AAAAAAAAAA	90s	AAe
023005	60s	---eAAADAD	70s	AAAAAAAAAA
	80s	AAAAAAAE††	90s	††
023006	60s	------eAAA	70s	AAAAAAAEEA
	80s	AAAAAAAAAA	90s	AAe
023007	60s	--eAAAAAAA	70s	AAAAAAAEAA
	80s	BAAAAAAEAD	90s	AAe
023008	60s	--------EA	70s	AAAAAAABAA
	80s	AEAAAAAEAE	90s	DAe
023009	60s	--------e	70s	AAADDAAAE†
	80s	EAAE††††††	90s	†E
023010	60s	--------†	70s	EAAAAAAAAA
	80s	e--††-††††	90s	††
023011	60s	--------†	70s	EDAAAAABAA
	80s	EAAAAAAEEF	90s	DAe
023012	70s	†EBAAAAAAA	80s	a--††-††††
	90s	††		
023013	70s	†EAAAAAAAA	80s	A††††††††
	90s	††		
023014	60s	fccccccccc	70s	cBAEE††††
	80s	------††††	90s	††
023015	40s	-†FEEEEEEE	50s	EAEAEEBBBe
023022	80s	--------a	90s	aae
023023	80s	--------d	90s	aae
024001	50s	-------fCC	60s	CCCCCCBAAA
	70s	AAAAAAEAAA	80s	EAAAAAAAAA
	90s	EDe		
024002	50s	--------eA	60s	AAAAAAAAAA
	70s	AAAABAAAAA	80s	AAAE††††††
	90s	††		
024003	50s	--------eA	60s	AAAAAAAEAA
	70s	AAAAAAAAAA	80s	AAAAADAAAA
	90s	DDe		
024004	50s	---------e	60s	AAAAAAAAAA
	70s	AAAAAAAAEA	80s	AAAAAAAAAA
	90s	AAe		
024005	50s	----eeEAAA	60s	AAAAAAAEAA
	70s	AAAAAAAEEA	80s	AAAAABAAAA
	90s	AAe		
024006	50s	-------fcc	60s	bAAAAAAAAA
	70s	AAAAAAAAAA	80s	e----††††
	90s	††		
024007	60s	-------†EA	70s	AAAAAAAAAA
	80s	AAAE††††††	90s	††
024008	70s	--eaaaeaae	80s	AAEAAAAAAA
	90s	AAe		
024009	70s	-------eAA	80s	AAAAAADAAA
	90s	AAe		
025001	50s	------eAAA	60s	AAAAAAADAA
	70s	AAAAAAAAAA	80s	AAAAAAAAAA
	90s	AAe		
025002	50s	-----ff-e	60s	aAAAAAAAAB
	70s	BAAAe--†††	80s	------††††
	90s	††		
025003	50s	-------eAA	60s	AAAEAAAAAA
	70s	AAAAAaaABA	80s	e----††††
	90s	†Ee		
025004	50s	-----eAAA	60s	AAAAAAAAAA
	70s	AAAAAAAAAD	80s	AAEADDDADA
	90s	ADe		
025005	50s	--------e	60s	AAAAAAAAAA
	70s	AAAABAAEAA	80s	AAAAAAAAAA
	90s	AAe		
025006	60s	eAAAAAAAAA	70s	AAABAABAAA
	80s	AAAAAAAAAA	90s	AAe
025007	60s	-eAAAAAAAA	70s	AAAAAAAAAA
	80s	E†---††††	90s	††
025008	60s	----†EAAA	70s	AAAABAAAEA
	80s	AEAE††---f	90s	aae
025009	60s	--------e	70s	ABAEEAAAAA
	80s	AAAAAAAAAA	90s	AAe
025010	60s	-------EAA	70s	AEAAE†††††
025011	60s	--------E	70s	AAAAAAAAAA
	80s	AAAE††††††	90s	††
025012	60s	--------E	70s	BAAAAAAAAA
	80s	AAAAAAAAAA	90s	AAe
025018	70s	†EEAAAAAAA	80s	AEEAAAAAAA
	90s	AAe		
025019	70s	†EAAAAAAAA	80s	AAAAAAAAAA
	90s	AAe		
025020	70s	--EAAAEAEA	80s	AAAAAAAAAA
	90s	AAe		
025021	70s	†††EBAAAAA	80s	AAAAADAAAA
	90s	AAe		
025022	70s	----eabeea	80s	a---††
025023	70s	-EAEEAAEAA	80s	AAEE†††††F
	90s	ADe		
026001	50s	---eAAABBB	60s	BBBBBABABB
	70s	AEABE†††††	80s	---†††††††
	90s	††		
026002	60s	-eAAAEEBBE	70s	EAAAAAAEBE
	80s	B†CCCCCCCC	90s	CC
026003	50s	--------e	60s	AAAAAAAAAB
	70s	AAAAEEEAAA	80s	AAAAAAAAAA
	90s	AA		
026004	70s	†EE†BEFEBA	80s	AAAAAB††††
	90s	††		
026005	80s	-DaaAAAAAA	90s	AA
026006	80s	eaadaaAAAB	90s	AB
026007	60s	-----fccc	70s	fcccffcccc
	80s	------††††	90s	††
026008	80s	------AAAA	90s	AA
027001	30s	-----eAAE†	40s	†EBAABCCF†
	50s	†††EAAAAAB	60s	AAAAAAAAAA
	70s	AAAAAAAAAA	80s	AADAEFCCCC
	90s	BA		
027002	30s	-------†††	40s	††††††††††
	50s	†††††EAAAA	60s	AAAAABABAA
	70s	AAAAAAAAAA	80s	AAAAAAAAAA
	90s	AA		
027003	50s	--------eE	60s	EEAAAAAAAA
	70s	AAAAABBADD	80s	AAAAAAAAAA
	90s	AA		
027004	60s	eAAAAAAAE†	70s	††EAAAE†††
027005	30s	-----fCF†	40s	†††††EAAAA
	50s	ABCCCCCCCB	60s	BBBBBBAAAA
	70s	AABBCCCCCC	80s	C†CFCCcCCC
	90s	C†		
027006	60s	----eAAAA	70s	AAAAAAAAAA
	80s	AAAAAAAAAA	90s	AA
027007	50s	--------eA	60s	AAAAAAAAAA
	70s	EBDAAAAAEE	80s	AAAAAAAAAA
	90s	AA		
027008	50s	----eAAAB	60s	AAAAAAAAAA
	70s	AAAAAEEEAE	80s	AEDEE†††††
	90s	††		
027009	60s	-†††††††E	70s	AAABDBAAAD
	80s	ADAAAAAAAA	90s	AE
027010	30s	-----fcfc	40s	fffffffff
	50s	cfffbAAAAA	60s	BAAEAAAAAA
	70s	ABAAAAEEAE	80s	-----††††
	90s	††		
027011	50s	---fBBBBBB	60s	BBBBBBAAAA
	70s	AAABCCF†††		
027012	50s	----eAAAAA	60s	AAAAAAAAAA
	70s	AAAE††††††		
027013	50s	----eBBBBB	60s	BBBBBBAAAA
	70s	AAABBBCBEE	80s	B††††††
027014	50s	--------eA	60s	AAAAAAAABA
	70s	EE††††††††	80s	---†††††††
	90s	††		
027015	60s	-eAAAAAADA	70s	AAAAAE††††
	80s	---†††††††	90s	††
027016	50s	------eBBB	60s	BBBBBBAAAA
	70s	AEBBEBCEEE	80s	B††††††
027017	50s	------eBBB	60s	BBBBBBAAAA
	70s	AEBBBBCEBE	80s	E††††††
027018	50s	-----eAAB	60s	BBABBBAAAB
	70s	BBbbe--†††	80s	---†††
027019	50s	------eAAA	60s	AAEBAAAAEE
	70s	EAAAe--†††	80s	---†††
027020	50s	-----eBBB	60s	BBBBBBABAB
	70s	BBBBEBCEEE	80s	B††††††
027021	50s	--------e	60s	aEEAAAAAAA
	70s	AAAAAAE†DA	80s	AAAaaaaAAA
	90s	AA		
027022	60s	eAAAAAABAA	70s	EE††††††††
	80s	---†††-†††	90s	††
027023	60s	eAAAAAAAAA	70s	AAAAAAAAAA
	80s	AAAAAAEDAA	90s	AA
027024	60s	-eAAAAAAAA	70s	AAAAAAEAAA
	80s	E†-†††††††	90s	††
027025	60s	-eAAAAAAAA	70s	AAAE††AAAA
	80s	AAAAAAAAAA	90s	AA
027026	60s	---eAAAAAA	70s	AAAAAAAAAE
	80s	AAAAAAAAAA	90s	AA
027027	60s	-eAAAAAAEA	70s	AAAAAE††††
	80s	-------††††	90s	††
027028	60s	-AAAAAAAAA	70s	AAAAAAAAEA
	80s	AAAAADaaaa	90s	aa
027029	60s	-eAAAAAAAE	70s	†EAAAAAAAA
	80s	AAEAAAaaaa	90s	aa
027030	60s	---eAAAAAA	70s	AAAAEEAAEA
	80s	AADAAAAAAA	90s	AA
027031	60s	----AAAAAA	70s	AAAAAAEAEA
	80s	AAAAAAAAAD	90s	AA
027032	60s	-----†EEAA	70s	AAAAAEEAAA
	80s	AEAAAAAAAA	90s	AA
027033	60s	--------f	70s	CCCCCBEAAA
	80s	AAAAAAaaaa	90s	AA
027034	60s	-------eBA	70s	BAAAAAAAAA
	80s	AAAAAAAAAA	90s	AA
027035	60s	--------EA	70s	AAAABABAAA
	80s	EAAAAAAAAA	90s	AA
027038	70s	EAAAAAAAAA	80s	EAADADAAAA
	90s	AA		
027039	60s	-------eAB	70s	BBAE††††††
	80s	---†††		
027040	70s	EBAAAAAAAA	80s	AAAAAAAAAA
	90s	AA		
027041	60s	--††††††††	70s	†††EAAAAAA
	80s	AAAAAAAAAA	90s	AA
027042	70s	††EAAAAAAA	80s	AAAAAAAAAA
	90s	AA		
027043	70s	----AAAAAA	80s	EAAAAAAAAA
	90s	AA		
027044	70s	--††EAAAAA	80s	AAAADAAAAA
	90s	AA		
027047	70s	-†EAAAAAAE	80s	AEADAEDDAA
	90s	AA		
027048	70s	-†EAAAEEAA	80s	AAAAAAAADA
	90s	DD		
027049	70s	----eAAAAA	80s	AAAAAAAAAA
	90s	AA		
027050	70s	fccffffead	80s	ADDaadAAAA
	90s	AA		
027051	70s	--eAAEAAAE	80s	AADAAAAAAA
	90s	AA		
027052	70s	-----eaaa	80s	AAAAAAAAAA
	90s	AD		
027053	70s	----eEAAA	80s	AAAAAAAAAA
	90s	AA		
027054	70s	----FFFAAE	80s	AAAAAAAAAA
	90s	AA		
027055	70s	---fCCEAE	80s	AADAAAAAAA
	90s	AA		
027056	70s	---fFCEAE	80s	AAAAAAAAAA
	90s	AD		
027057	70s	---fFCEAE	80s	AAAAAAAAAA
	90s	AA		
027058	70s	---fCCEAE	80s	AAAAAAAAAA
	90s	AA		
027059	70s	-------eAE	80s	EAAAAAAAAA
	90s	AA		
027060	70s	--------e	80s	AAAAAAAAAA
	90s	AA		
027061	70s	-------eA	80s	AAAAAAAAAA
	90s	AA		
027062	70s	--------e	80s	AEAAAAAAAA
	90s	AA		
027063	80s	eedeDAadaa	90s	dd
027064	70s	--------e	80s	aaaaADAAAA
	90s	AA		
027065	70s	--------e	80s	adaaAAAAAA
	90s	AA		
027066	80s	-daaAAAAAA	90s	AA
027067	80s	-daaAAAAAA	90s	AA
027068	80s	-eaaaaaaaa	90s	da
027069	80s	eadaAAAAAA	90s	AA
027070	80s	-edadaAAAA	90s	AA
027071	50s	-----eAAAB	60s	AAAAAAAAAA
	70s	AAAAAEBEAE	80s	AAAAAAAAAA
	90s	AA		
027072	80s	edaaAAAAAA	90s	AA
027073	80s	-eaaAAAAEA	90s	AA
027074	80s	--edAAAAAA	90s	AA
027075	80s	---eaaaAAA	90s	AD
027076	80s	---eaaaaaa	90s	AA
027077	80s	---eaaAAAA	90s	AA
027080	80s	-----eaAAA	90s	AA
027081	80s	------EAAA	90s	AA
027082	80s	-------AAA	90s	AA
027084	80s	--------ea	90s	aa
027086	80s	----eaaaae	90s	ad

Summaries of Archived Data – 2

Naturalised daily and monthly flows

Stn. number	Naturalised daily, and monthly flows			
023001	50s ——FEEE	60s	EEEEFBACAA	
	70s CC			
023002	60s ——CAAAA	70s	AC	
023003	50s ———F	60s	EEEEEBAAAA	
	70s AAAC			
023007	60s ——CAAAA	70s	BCAC	
023008	70s –CC			
023015	40s –FFFFFFFF	50s	FEFEFFEEEF	
024001	60s ——CA	70s	AC	
024003	50s ——FE	60s	EEEEEBACAA	
	70s AC-CC			
025001	50s ——FEEE	60s	EEEEEBAAAA	
	70s AC–CAAAC			
025002	70s FFFF			
025004	50s ——FEE	60s	EEEEEBAACC	
	70s C			
025008	60s ——CAAB	70s	BBEF	
026002	60s ——FFEEE	70s	EEEEEEEEEE	
	80s EEEEEEEEEE	90s	BE	

Stn. number	Naturalised daily, and monthly flows			
027001	30s ——FF·	40s	·FEEEF—	
	50s —FEEEEEF	60s	EEEEEEEF·F	
	70s E			
027002	50s ——FEEEE	60s	EEEEEEEEEE	
	70s E			
027003	60s –FEEEEEEE	70s	EF	
027004	60s FEEEEEEEF			
027005	40s —FEEEE	50s	EEEEEFEEEE	
	60s EEEEEEEEEF			
027006	60s —FEEEE	70s	EF	
027007	50s ——FE	60s	EEEEEEEEEE	
	70s EF			
027009	60s ———F	70s	EF	
027011	50s —FEEEEEE	60s	EEEEEEEEEE	
	70s EEEF			
027012	50s —FEEEEE	60s	EEEEEEEEEE	
	70s EF			
027013	50s —FEEEEE	60s	EEEEEEEEFE	
	70s EF			
027015	60s ——CAAC			
027016	50s ——FEEE	60s	EEEEEEEEFE	
	70s EF			

Stn. number	Naturalised daily, and monthly flows			
027017	50s ——FEEE	60s	EEEEEEEEFE	
	70s EFEF			
027018	50s ——FEEE	60s	EEEEEEEEEE	
	70s EEEF			
027019	50s ——FEEE	60s	EEFEEEEEFF	
	70s ·FEF			
027020	50s ——FFEF	60s	FFEEEEEEFE	
	70s FEEF			
027021	60s FFFEEEFEEE	70s	EF	
027022	60s —FEEEEE	70s	FF	
027023	60s —FEEEEE	70s	EF	
027024	60s ·FEEEF			
027025	60s ·FEEEEEEEE	70s	EF	
027026	60s —FEEEEEF			
027027	60s ·FEEFFEEFE	70s	EEEF	
027028	60s ·EEEEEEEEE	70s	EF	
027029	60s ·FEEEEFEEF			
027030	60s —FEEEEE	70s	EF	
027031	60s —EEEEFE	70s	EF	
027032	60s ——FFEF			
027039	60s ——FEE	70s	EF	

Gauged daily flows, monthly peaks and monthly rainfall

KEY:

	Complete rainfall	Incomplete or missing rainfall
Complete daily and complete peaks	A	a
Complete daily and partial peaks	B	b
Complete daily and no peaks	C	c
Partial daily and complete peaks	D	d
Partial daily and partial peaks	E	e
Partial daily and no peaks	F	f
No flow data	†	–

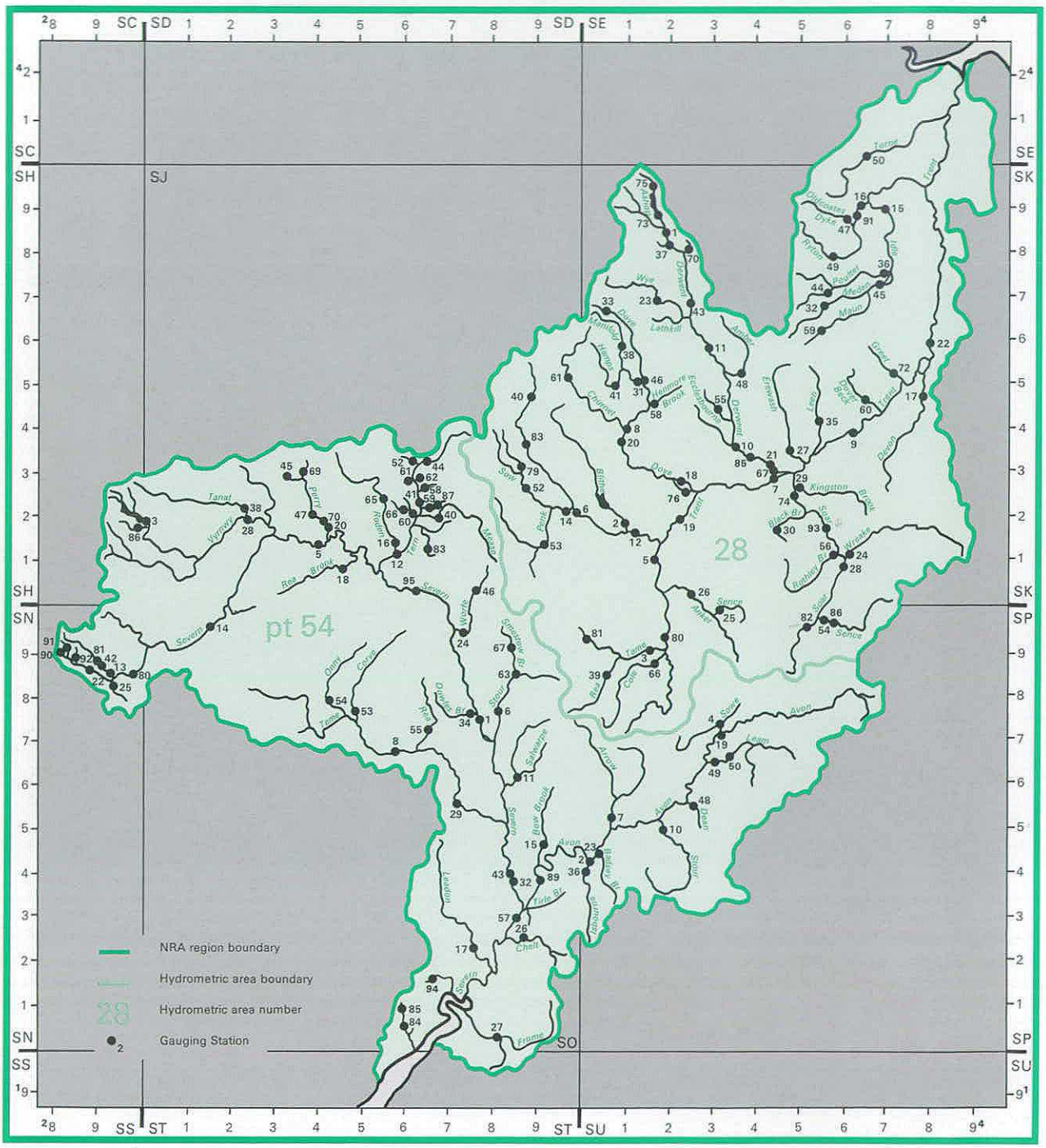
Naturalised daily and monthly flows

KEY:

Complete daily and complete monthly	A
Partial daily and complete monthly	B
Partial daily and partial monthly	C
Partial daily and no monthly	D
No daily and complete monthly	E
No daily and partial monthly	F
No naturalised flow data	–

Up-to-date Summaries of Archived Data are available on request from the National Water Archive Office.

SEVERN – TRENT REGION



Area: 21,666 km^2

Average Rainfall (1961–90): 754mm

Gauging Station Register

Station number	River name	Station name	Grid reference	Catchment area (sq km)	Station type	Period of record	Mean ann. rainfall (mm)	Mean ann. runoff (mm)	Mean ann. loss (mm)	Max. ann. runoff (mm)	Year of max.	Min. ann. runoff (mm)	Year of min.	Mean flow (m^3s^{-1})	Min. mon. flow (m^3s^{-1})	Month/Year of min.	Mean ann. flood (m^3s^{-1})	10 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
028001	Derwent	Yorkshire Bridge	SK 198851	126.0	FL	1933–90	1379	528	851	883	54	244	64	2.11	0.22	05/74		4.7	0.51
028002 *	Blithe	Hamst'll Ridware	SK 109192	163.0	FL	1937..84	789	238	551	430	51	82	76	1.23	0.28	09/76		2.8	0.32
028003 *	Tame	Water Orton	SP 169915	408.0	VA	1955..82	737	451	286	628	60	310	56	5.84	2.41	06/57	75.6	10.2	2.70
028005 *	Tame	Elford	SK 173105	1475.0	VA	1955–84	698	410	288	535	60	279	64	19.19	5.91	07/84	116.9	35.4	8.25
028006 *	Trent	Great Haywood	SJ 994231	325.0	VA	1957–64	762	432	330	641	60	324	63	4.45	1.85	09/64	30.0	7.8	2.32
028007	Trent	Shardlow	SK 448299	4400.0	US	1957..90	779	387	392	579	60	259	64	53.97	10.46	09/59	270.9	109.8	16.34
028008	Dove	Rocester Weir	SK 112397	399.0	VA	1953–90	1035	590	445	871	66	314	59	7.46	0.67	09/59	90.9	15.6	1.69
028009	Trent	Colwick	SK 620399	7486.0	VA	1958–90	774	358	416	522	66	198	76	84.93	18.44	08/76	505.8	170.8	27.60
028010 *	Derwent	Longbridge Weir	SK 356363	1054.0	VA	1935..86	1000	529	471	754	66	288	76	17.69	3.65	08/76	163.4	36.3	4.98
028011	Derwent	Matlock Bath	SK 296586	690.0	VA	1958..90	1114	578	536	852	66	341	64	12.65	1.61	09/59	111.5	26.5	3.34
028012	Trent	Yoxall	SK 131177	1229.0	VA	1959..90	772	327	445	479	87	190	76	12.76	2.48	08/76	71.8	22.1	4.93
028014 *	Sow	Milford	SJ 975215	591.0	VA	1960..77	718	276	442	460	60	167	76	5.17	1.00	04/76	31.4	9.5	1.44
028015	Idle	Mattersey	SK 690895	529.0	EM	1965..90	662	209	453	309	69	134	90	3.51	0.86	08/90	13.5	5.7	1.30
028016 *	Ryton	Serlby Park	SK 641897	231.0	VA	1965–78	647	239	408	425	69	96	76	1.75	0.22	09/75	12.4	3.1	0.43
028017 *	Devon	Cotham	SK 787476	284.0	VA	1966..78	*561*	173	388	281	77	119	72	1.56	0.05	04/76	23.4	3.6	0.15
028018	Dove	Marston	SK 235288	883.2	FVVA	1961..90	948	495	453	693	65	276	76	13.86	1.91	08/76	137.2	27.6	3.67
028019	Trent	Drakelow Park	SK 239204	3072.0	VA	1966–90	725	365	360	444	80	234	76	35.58	10.81	08/76	181.9	64.0	14.39
028020 *	Churnet	Rocester	SK 103389	236.0	VA	1954..82	1001	485	516	717	81	282	76	3.63	0.54	09/59		7.6	0.95
028021 *	Derwent	Draycott	SK 443327	1175.0	VA	1965..77	973	551	422	771	75	318	76	20.54	4.59	08/76		34.8	5.43
028022	Trent	North Muskham	SK 801601	8231.0	VA	1968..90	749	343	406	439	79	196	76	89.65	19.37	08/76		176.9	27.80
028023 *	Wye	Ashford	SK 182696	154.0	VA	1965–77	*1066*	625	441	865	66	352	71	3.05	0.35	08/76		5.4	0.96
028024	Wreake	Syston Mill	SK 615124	413.8	EM	1967..90	626	213	413	335	79	70	76	2.80	0.12	08/76		6.5	0.31
028025 *	Sence	Ratcliffe Culey	SP 321996	169.4	C	1966–84	*661*	282	379	366	80	106	76	1.51	0.11	08/76		3.0	0.25
028026	Anker	Polesworth	SK 263034	368.0	C VA	1966..90	649	244	405	319	81	104	76	2.85	0.34	07/76		5.9	0.62
028027	Erewash	Stapleford	SK 482364	182.2	US	1965..90	715	365	350	575	74	269	68	2.11	0.31	09/90		4.2	0.43
028028 *	Soar	Wanlip	SK 603109	480.0	CC	1972..81	*664*	178	486	255	80	121	73	2.70	0.31	08/75		6.4	0.38
028029 *	Kingston Brk	Kingston Hall	SK 503277	57.0	CC	1966..84	590	208	382	314	79	65	76	0.38	0.02	08/76		0.7	0.03
028030 *	Black Brook	Onebarrow	SK 466171	8.4	FL	1967..84	737	297	440	435	77	109	76	0.08	0.01	08/76		0.2	0.01
028031	Manifold	Ilam	SK 140507	148.5	C	1968–90	1094	756	338	1021	81	476	75	3.56	0.39	08/76		7.6	0.64
028032	Meden	Church Warsop	SK 558680	62.8	VA	1965..90	735	322	413	451	79	231	75	0.64	0.18	11/78	6.1	1.0	0.26
028033 *	Dove	Hollinsclough	SK 063668	8.0	CC	1965..82	*1432*	1009	423	1399	81	646	75	0.26	0.02	08/76		0.6	0.04
028035	Leen	Nottingham	SK 549392	111.0	US	1967..90	*693*	247	446	226	82	220	83	0.87	0.11	09/90		1.3	0.36
028036 *	Poulter	Twyford Bridge	SK 700752	128.2	C	1969..75	*590*	188	402	238	70	146	74	0.77	0.41	06/74		1.2	0.39
028037 *	Derwent	Mytham Bridge	SK 205825	203.0	L	1978–84	*1473*	860	613	1036	81	653	82	5.54	1.13	08/83		12.9	1.23
028038 *	Manifold	Hulme End	SK 106595	46.0	VA	1969..82	1150	782	368	981	81	505	75	1.14	0.03	07/76		2.8	0.09
028039	Rea	Calthorpe Park	SP 071847	74.0	BC	1967..90	794	350	444	451	81	257	73	0.82	0.26	07/76		1.6	0.26
028040	Trent	Stoke on Trent	SJ 892467	53.2	C	1968–90	870	398	472	523	81	277	89	0.67	0.13	09/89		1.4	0.16
028041 *	Hamps	Waterhouses	SK 082502	35.1	FV	1968–82	1067	645	422	851	81	381	75	0.72	0.02	08/76		1.7	0.06
028043	Derwent	Chatsworth	SK 261683	335.0	VA	1968..90	1187	593	594	858	86	309	76	6.30	0.93	08/84		13.9	1.50
028044	Poulter	Cuckney	SK 570713	32.2	C	1969..90	701	325	376	527	79	160	76	0.33	0.12	08/76		0.5	0.17
028045 *	Meden /Maun	Bothamstall /Haughton	SK 681732	262.6	FLVA	1965..84	*691*	202	489	263	69	102	76	1.68	0.39	08/76	9.8	2.7	0.82
028046	Dove	Izaak Walton	SK 146509	83.0	FV	1969–90	1129	742	387	974	81	448	76	1.95	0.34	08/76		3.6	0.57
028047	Oldcoates Dk	Blyth	SK 615876	85.2	FVVA	1970..90	646	251	395	397	79	106	76	0.68	0.11	08/76		1.1	0.23
028048	Amber	Wingfield Park	SK 376520	139.0	FVVA	1971–90	789	316	473	443	81	156	76	1.39	0.21	08/76		2.9	0.34
028049	Ryton	Worksop	SK 575794	77.0	FV	1970..90	*702*	195	507	350	79	60	76	0.48	0.05	08/76		1.0	0.09
028050	Torne	Auckley	SE 646012	135.5	FVVA	1971..90	614	224	390	322	80	117	76	0.96	0.21	08/76		1.6	0.31
028052	Sow	Great Bridgford	SJ 883270	163.0	FVVA	1971..90	752	222	530	308	80	138	76	1.15	0.14	08/76		2.2	0.34
028053	Penk	Penkridge	SJ 923144	272.0	FV	1976..90	713	261	452	320	80	207	78	2.25	0.35	08/76		4.2	0.70
028054 *	Sence	Blaby	SP 566985	133.0	FVVA	1971–84	623	265	358	389	80	118	76	1.12	0.10	07/76		2.5	0.16
028055	Ecclesbourne	Duffield	SK 320447	50.4	FV	1971..90	852	420	432	574	81	209	76	0.67	0.05	08/76		1.5	0.12
028056	Rothley Brk	Rothley	SK 580121	94.0	FVVA	1973..90	672	264	408	369	80	87	76	0.79	0.09	07/76		1.6	0.15
028058 *	Henmore Brk	Ashbourne	SK 176463	42.0	FV	1974–84	865	381	484	502	81	211	76	0.51	0.03	08/76		1.1	0.06
028059	Maun	Mansfield	SK 548623	28.8	FLVA	1966..84	*718*	498	220	667	79	347	76	0.45	0.20	06/76	12.2	0.7	0.23
028060	Dover Beck	Lowdham	SK 653479	69.0	FVVA	1972..90	674	69	605	110	79	33	76	0.15	0.04	09/90		0.3	0.05
028061	Churnet	Basford Bridge	SJ 983520	139.0	FVVA	1975..90	973	474	499	732	81	285	76	2.09	0.40	09/89		4.6	0.48
028066	Cole	Coleshill	SP 183874	130.0	FVVA	1973–90	724	231	493	292	77	174	75	0.95	0.20	07/76		2.0	0.20
028067	Derwent	Church Wilne	SK 438316	1177.5	FV	1973–90	1004	513	491	684	81	275	76	19.16	3.97	08/76		40.2	5.07
028070 *	Burbage Brk	Burbage	SK 259804	9.1	TP	1965..82	*1188*	589	599	794	79	426	76	0.17	0.02	08/76	5.4	0.4	0.02
028072 *	Greet	Southwell	SK 711541	46.2	FV	1975–84	635	240	395	328	79	104	76	0.35	0.06	08/76		0.6	0.12
028073 *	Ashop	Ashop diversion	SK 171896	42.0	VA	1976..84		747		851	79	677	81	1.00	0.03	10/78		2.4	0.13
028074 *	Soar	Kegworth	SK 492263	1292.0	US	1978..90		324		351	79	291	83	13.27	3.54	09/79		28.3	3.55
028075 *	Derwent	Slippery Stones	SK 169951	17.0	FV	1979–82		1096		1302	81	1067	80	0.59	0.11	05/80		1.5	0.09
028076	Tutbury Millfleam	Rolleston	SK 243283	23.0	FV	1980..90		952		1351	81	590	90	0.69	0.10	09/89		1.0	0.13
028079	Meece	Shallowford	SJ 874291	86.3	FVVA	1981–90	*767*	220	547	264	87	169	90	0.60	0.12	08/90		1.2	0.14
028080	Tame	Lea Marston Lks	SP 207937	799.0	MIS	1957..90	726	537	189	685	66	383	76	13.60	6.37	07/76		22.6	7.20
028081	Tame	Bescot	SP 012958	169.0	FL	1982..90	*709*	504	205	572	83	365	90	2.70	1.14	09/90		4.2	1.16
028082	Soar	Littlethorpe	SP 542973	183.9	EM	1971..90	635	248	387	366	80	110	76	1.44	0.16	07/76		3.2	0.30
028083	Trent	Darlaston	SJ 885355	195.2	US	1982..90	*827*	617	210	702	83	539	90	3.82	1.71	07/84		6.8	1.58
028085	Derwent	St. Marys Bridge	SK 355368	1054.0	US	1935..90	1001	525	476	754	66	288	76	17.56	3.65	08/76		36.3	4.81
028086	Sence	South Wigston	SP 588977	113.0	EM	1971..90	633	284	349	458	80	138	76	1.02	0.10	07/76		2.3	0.14
028091	Ryton	Blyth	SK 631871	231.0	EM	1984..90	640	219	421	296	87	133	89	1.61	0.36	08/90		3.0	0.36
028093	Soar	Pillings Lock	SK 565182	1108.4	US	1986..90	637	259	378	330	87	191	90	9.10	1.97	11/89		20.9	2.38
028102	Blythe	Whitacre	SP 212911	194.3	EM	1987..90	699	197	502	211	90	211	90	1.22	0.27	08/90		3.1	0.28
054001	Severn	Bewdley	SO 782762	4325.0	US	1921–90	917	450	467	691	60	266	64	61.74	7.46	08/76	378.8	148.1	10.96
054002	Avon	Evesham	SP 040438	2210.0	VA	1936–90	666	217	449	357	60	98	44	15.23	1.94	06/44	160.7	34.0	2.88
054003	Vyrnwy	Vyrnwy Res	SJ 019191	94.3	TP	1920..90	1926	704	1222	1252	28	206	76	2.11	0.28	07/79	91.3	5.0	0.49
054004	Sowe	Stoneleigh	SP 332731	262.0	CC	1952..90	677	357	320	474	60	209	53	2.97	0.89	08/61	29.9	5.3	1.07
054005	Severn	Montford	SJ 412144	2025.0	VA	1953–90	1170	661	509	925	54	426	64	42.42	2.54	09/55	302.7	105.8	5.63
054006	Stour	Kidderminster	SO 829768	324.0	US	1953–90	708	278	430	403	60	182	75	2.86	0.89	08/76	21.4	4.7	1.33
054007	Arrow	Broom	SP 086536	319.0	C	1957..90	699	279	420	416	66	143	64	2.82	0.51	07/76	49.6	5.5	0.76

Station number	River name	Station name	Grid reference	Catchment area (sq km)	Station type	Period of record	Mean ann. rainfall (mm)	Mean ann. runoff (mm)	Mean ann. loss (mm)	Max. ann. runoff (mm)	Year of max.	Min. ann. runoff (mm)	Year of min.	Mean flow (m^3s^{-1})	Min. mon. flow (m^3s^{-1})	Month/Year of min.	Mean ann. flood (m^3s^{-1})	10 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
054008	Teme	Tenbury	SO 597686	1134.4	VA	1956–90	855	398	457	653	60	202	64	14.33	0.74	08/76	151.5	34.3	1.51
054010 *	Stour	Alscot Park	SP 208507	319.0	CB	1959..83	671	218	453	380	60	77	73	2.21	0.06	08/76	48.4	5.3	0.26
054011 *	Salwarpe	Harford Mill	SO 868618	184.0	VA	1961–84	665	226	439	337	66	145	64	1.32	0.27	07/76	23.4	2.3	0.41
054012	Tern	Walcot	SJ 592123	852.0	FV	1960–90	706	260	446	380	66	139	64	7.01	1.17	08/76	40.0	13.4	2.38
054013 *	Clywedog	Cribynau	SN 944855	57.0	MIS	1959–79	1888	1250	638	1885	74	801	67	2.26	0.14	09/59	72.8	5.2	0.29
054014	Severn	Abermule	SO 164958	580.0	VA	1962–90	1259	757	502	943	65	507	64	13.93	0.98	06/70	232.8	34.6	1.72
054015	Bow Brook	Besford Bridge	SO 927463	156.0	TPVA	1969..90	632	204	428	279	77	157	76	1.01	0.02	07/76		2.6	0.10
054016	Roden	Rodington	SJ 589141	259.0	FLVA	1961–90	687	243	444	385	69	122	64	2.00	0.22	08/76	15.4	4.3	0.44
054017	Leadon	Wedderburn Br	SO 777234	293.0	FLVA	1962..90	704	219	485	358	68	99	73	2.03	0.10	07/76	21.9	5.0	0.31
054018	Rea Brook	Hookagate	SJ 466092	178.0	FLVA	1962..90	747	303	444	431	68	139	64	1.71	0.11	08/76	23.1	4.1	0.23
054019	Avon	Stareton	SP 333715	347.0	CVA	1962–90	668	229	439	326	66	99	76	2.52	0.25	07/76	38.4	5.7	0.47
054020	Perry	Yeaton	SJ 434192	180.8	C	1963–90	760	284	476	407	69	141	64	1.63	0.21	08/76	9.9	3.4	0.43
054022	Severn	Plynlimon flume	SN 853872	8.7	FL	1953..90	2453	1852	601	2342	54	1149	76	0.51	0.03	08/76	13.9	1.3	0.05
054023	Badsey Brook	Offenham	SP 063449	95.8	FL	1968..90	665	217	448	321	77	92	76	0.66	0.03	07/76	10.6	1.6	0.07
054024	Worfe	Burcote	SO 747953	258.0	C	1969–90	691	147	544	186	72	84	76	1.20	0.10	08/76		2.1	0.36
054025	Dulas	Rhos-y-pentref	SN 950824	52.7	FL	1969..90	1278	830	448	1029	77	535	75	1.39	0.01	08/76		3.6	0.04
054026 *	Chelt	Slate Mill	SO 892264	34.5	FL	1969..83	742	543	199	654	77	400	73	0.59	0.27	06/72		1.0	0.29
054027	Frome	Ebley Mill	SO 831047	198.0	CBVA	1969..90	841	382	459	503	77	183	76	2.40	0.33	08/76		4.6	0.70
054028	Vyrnwy	Llanymynech	SJ 252195	778.0	VA	1970–90	1311	851	460	**1124**	**88**	565	75	20.99	1.01	08/76		48.8	2.10
054029	Teme	Knightsford Br	SO 735557	1480.0	VA	1970–90	824	370	454	509	77	239	75	17.36	1.00	08/76		40.6	1.99
054032	Severn	Saxons Lode	SO 863390	6850.0	US	1970–90	859	397	462	517	77	268	75	86.21	9.93	08/76		217.9	15.38
054034	Dowles Brook	Dowles	SO 768764	40.8	FVVA	1971..90	725	301	424	393	77	186	73	0.39	0.02	07/76		1.0	0.03
054036	Isbourne	Hinton on Green	SP 023408	90.7	CVA	1972..90	697	220	477	332	74	93	76	0.63	0.02	07/76		1.4	0.10
054038	Tanat	Llanyblodwel	SJ 252225	229.0	FVVA	1973..90	1216	880	336	1034	82	576	75	6.39	0.19	08/76		15.2	0.50
054040	Meese	Tibberton	SJ 680205	167.8	C	1973–90	695	231	464	309	80	156	76	1.23	0.25	08/76		2.2	0.47
054041	Tern	Eaton On Tern	SJ 649230	192.0	C	1972–90	718	287	431	378	80	201	76	1.75	0.44	08/76		3.0	0.76
054042 *	Clywedog	Clywedog Dam	SN 914867	49.0	TP	1971..77	1814	1014	800	1238	74	1005	75	1.57	0.14	01/77		3.8	0.24
054043 *	Severn	Upton	SO 863399	6850.0	VA	1955..70	*805*	445	360	676	60	309	56	96.58	14.77	09/59		258.2	25.22
054044	Tern	Ternhill	SJ 629316	92.6	TPVA	1972–90	740	294	446	378	80	213	76	0.86	0.29	08/76		1.4	0.43
054045 *	Perry	Perry Farm	SJ 347303	49.1	FV	1974–79	830	389	441	482	77	302	75	0.61	0.13	08/76		1.1	0.19
054046 *	Worfe	Cosford	SJ 781046	54.9	TP	1975..90	*724*	114	610	149	81	82	76	0.20	0.03	08/76		0.4	0.04
054047 *	Perry	Ruyton Bridge	SJ 403223	155.0	VA	1975–78		246		338	77	212	76	1.21	0.15	08/76		2.9	0.19
054048	Dene	Wellesbourne	SP 273556	102.0	FV	1976..90	645	212	433	301	77	157	83	0.69	0.03	08/76		1.7	0.08
054049	Leam	Princes Drive	SP 307654	362.0	MIS	1979..90	*656*	206	450	**335**	**87**	136	84	2.36	0.20	07/84		6.0	0.26
054050	Leam	Eathorpe	SP 388688	300.0	FLCB	1987–90	640	163	477	230	87	119	90	1.55	0.31	06/90		3.8	0.28
054052	Bailey Brook	Ternhill	SJ 629316	34.4	TP	1970..90	699	290	409	421	80	194	75	0.32	0.07	08/76		0.5	0.12
054053 *	Corve	Ludlow	SO 510752	164.0	VA	1972–76	720	195	525	268	74	156	73	1.01	0.08	10/75		2.2	0.09
054054 *	Onny	Onibury	SO 455789	235.0	VA	1972–76	759	294	465	401	74	226	75	2.19	0.26	09/75		4.6	0.23
054055 *	Rea	Nean Sollars	SO 664724	129.0	MIS	1972..76		234		224	73	194	75	0.96	0.22	10/75		1.6	0.19
054057	Severn	Haw Bridge	SO 844279	9895.0	VA	1971–90	*792*	336	456	436	77	229	76	105.30	12.28	08/76		245.8	20.44
054058 *	Stoke Pk Brk	Stoke Park	SJ 644260	14.3	FV	1972–78		203		201	74	150	75	0.09	>0.00	08/76		0.2	0.02
054059 *	Allford Brook	Allford	SJ 654223	10.2	FV	1972..78	*676*	182	494	254	73	114	75	0.06	0.01	08/76		0.1	0.01
054060	Potford Brk	Potford	SJ 634220	25.0	FV	1972..90	*654*	169	485	**237**	**88**	98	76	0.13	0.02	08/76		0.2	0.05
054061 *	Hodnet Brk	Hodnet	SJ 628288	5.1	FV	1972..77		111		117	73	80	76	0.02	>0.00	10/75		0.0	
054062 *	Stoke Brook	Stoke	SJ 637280	13.7	FV	1972..83	699	196	503	274	80	94	76	0.08	0.02	08/76		0.1	0.03
054063	Stour	Prestwood Hosp	SO 865858	89.9	MIS	1972..83		408		476	80	317	73	1.16	0.51	07/76		1.9	0.56
054065 *	Roden	Stanton	SJ 565241	210.0	VA	1973..79	679	211	468	215	74	142	75	1.41	0.20	08/76		2.6	0.26
054066 *	Platt Brook	Platt	SJ 628229	15.7	FV	1973–83	678	149	529	205	80	96	76	0.07	0.01	08/76		0.1	0.03
054067 *	Smestow Brk	Swindon	SO 861906	81.3	VA	1974–78		209		266	77	168	75	0.54	0.18	08/76		1.0	0.17
054069 *	Springs Brook	Lower Hordley	SJ 387297	10.4	FV	1974–78		176		230	77	127	75	0.06	0.01	08/76		0.1	0.01
054070 *	War Brook	Walford	SJ 432198	22.5	FV	1974–83		205		275	82	101	75	0.15	0.00	08/76		0.4	>0.00
054080 *	Severn	Dolwen	SN 996851	187.0	VA	1977..83		1120		1139	81	1036	82	6.64	0.68	05/80		16.9	0.85
054081	Clywedog	Bryntail	SN 913868	49.0	FV	1977–90	*1947*	1509	438	**1806**	**88**	1250	84	2.34	0.25	10/84		5.4	0.28
054083 *	Crow Brook	Horton	SJ 678141	16.7	FV	1978–83		261		287	82	238	79	0.14	0.08	09/79		0.2	0.07
054084 *	Cannop Brk	Parkend	SO 616075	31.5	C	1978–83		343		421	82	272	83	0.34	0.05	11/78		0.8	0.06
054085 *	Cannop Brk	Cannop Cross	SO 609115	10.4	FV	1979–83		418		519	82	358	83	0.14	0.02	08/82		0.3	0.02
054087	Allford Brook	Childs Ercall	SJ 667228	4.7	VN	1973..90	*591*	101	490	208	80	13	73	0.02	0.00	08/73		0.0	
054089	Avon	Bredon	SO 921374	2674.0	US	1988–90	*546*	178	368	197	89	157	90	15.12	3.52	08/90		32.1	3.35
054090	Tanllwyth	Tanllwyth Flume	SN 843876	0.9	FL	1973–89	*2521*	2067	454	**2523**	**86**	1226	76	0.06	>0.00	07/84		0.1	>0.00
054091	Severn	Hafren Flume	SN 843878	3.6	FL	1976..90	1526	1953		**2208**	**86**	1253	76	0.22	0.02	07/84		0.5	0.03
054092	Hore	Hore Flume	SN 846873	3.2	FL	1973–90	1495	1912		**2296**	**86**	1202	76	0.19	0.00	09/74		0.5	0.02
054094	Strine	Crudgington	SJ 640175	134.0	EM	1982..90	*629*	176	453	191	88	136	89	0.75	0.19	08/90		1.4	0.17
054095	Severn	Buildwas	SJ 644044	3717.0	US	1977..90	*951*	497	454	574	88	441	89	58.55	11.72	07/86		150.5	10.89

Hydrometric Statistics

		Period	Rainfall (mm)	% of pre-1986	Runoff (mm)	% of pre-1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
028001	**Derwent at Yorkshire Bridge** C.A: 126.0 km^2	**33-85**	*1377*		**527**		**2.10**	**150.6**	**09/12 1965**	**0.10**	**05/05 1974**	**4.5**	**0.95**	**0.54**
M.A: NRA-ST	Level: 159m Local Number: 1													
F.A.R: SRP	B.F.I: .47 Sensitivity: 8.8	1986	1719	125	799	152	3.19	35.4	17/04	0.40	16/07	8.5	0.92	0.44
Comment: Two shallow profile trapezoidal flumes with a whaleback divide since 1936; compound sharp-edged weir previously. Below a cascade of 3 reservoirs (1912, 1916, 1946). Within basin diversions (Ashop) and imports (Noe); PWS exports. Long naturalised series available. * Steep moorland catchment, much hilltop peat. Shale and sandstone form the lower parts of the valleys, gritstone top the hills (Middle Carboniferous).		1987	1305	95	577	109	2.31	27.7	25/06	0.68	23/02	7.1	1.16	0.71
		1988	1543	112	686	130	2.73	89.5	22/03	0.35	01/07	7.4	1.15	0.40
		1989	1243	90	337	64	1.35	51.8	23/03	0.46	10/07	1.8	0.75	
		1990	1324	96	313	59	1.25	28.0	07/02	0.32	06/05	2.4	0.74	0.45
028008	**Dove at Rocester Weir** C.A: 399.0 km^2	**53-85**	**1034**		**584**		**7.39**	**141.6**	**04/12 1960**	**0.62**	**28/09 1959**	**15.4**	**5.29**	**1.65**
M.A: NRA-ST	Level: 86m Local Number: 8													
F.A.R: GE	B.F.I: .62 Sensitivity: 14.7	1986	1163	112	731	125	9.24	94.7	10/01	1.91	08/10	20.3	6.81	2.11
Comment: Velocity-area station about 19.8m wide; an old mill weir is a rather insensitive control. Gauging is from a footbridge. Station is bypassed when out of bank (3-4 times per year). Minimal adjustments. # Predominantly upland catchment; headwaters drain Millstone Grit and Carboniferous Limestone. Lower reaches are Carboniferous and Triassic sandstone and Keuper Marl. Some superficials. Moorland, forestry and pasture.		1987	1016	98	674	115	8.53	60.8	01/01	3.04	15/09	15.3	6.95	3.53
		1988	1109	107	694	119	8.76	76.3	24/01	2.74	24/06	16.7	6.42	3.59
		1989	943	91	504	86	6.37	63.0	01/03	1.52	30/09	15.0	3.96	1.63
		1990	1011	98	514	88	6.50	71.3	27/01	1.53	14/08	16.0	3.91	1.65
028009	**Trent at Colwick** C.A: 7486.0 km^2	**58-85**	**774**		**359**		**85.11**	**956.7**	**25/02 1977**	**14.70**	**23/08 1976**	**168.1**	**60.57**	**28.58**
M.A: NRA-ST	Level: 16m Local Number: 9													
F.A.R: SRPGEI	B.F.I: .64 Sensitivity: 2.6	1986	841	109	411	114	97.50	450.5	12/01	27.41	06/10	217.0	69.29	29.13
Comment: Velocity-area station in the navigable Trent. Main channel approx. 62m; cableway span 99m. Holme sluices 750m u/s affect water levels up to medium flows. Bypassed at high flows on rb when gravel workings inundated. Very substantial flow modifications owing to imports, WRW's, cooling water and industrial usage. # Very large catchment with the gamut of land usage. Predominantly impervious - glacial clay and Triassic Marl, but some sandstone and limestone. Extensive terrace gravels and alluvium maintain baseflow.		1987	784	101	400	111	95.00	470.0	01/01	32.65	21/08	174.8	76.33	37.85
		1988	790	102	383	107	90.69	520.1	25/01	31.85	24/06	200.5	60.93	36.41
		1989	726	94	293	82	69.58	397.7	21/12	22.07	02/10	151.3	45.18	22.96
		1990	697	90	280	78	66.58	448.3	09/02	21.09	13/08	157.8	40.19	22.37
028011	**Derwent at Matlock Bath** C.A: 690.0 km^2	**58..85**	**1108**		**574**		**12.55**	**436.1**	**09/12 1965**	**0.86**	**14/10 1959**	**25.8**	**8.58**	**3.44**
M.A: NRA-ST	Level: 83m Local Number: 11													
F.A.R: SRPGEI	B.F.I: .64 Sensitivity: 6.6	1986	1344	121	778	136	17.02	116.6	10/01	3.48	17/08	39.2	11.46	3.81
Comment: Velocity-area station about 20m wide in a deep channel. Well rated. Highest floods will bypass along the adjacent A6 road. Substantially affected by Derwent reservoirs. # Responsive upland catchment with peat covered moorlands in the headwaters. Main Derwent drains the Millstone Grit; the largest tributary, the Wye, drains Carboniferous Limestone. Forestry and pasture.		1987	1091	98	654	114	14.31	95.9	01/01	5.50	04/09	25.9	11.21	5.82
		1988	1241	112	673	117	14.69	122.5	15/03	3.81	28/06	32.4	10.16	4.67
		1989	1012	91	455	79	9.97	118.5	24/03	2.29	11/10	22.8	5.90	2.75
		1990	1070	97	451	79	9.86	86.7	07/02	2.41	20/09	25.0	5.33	2.72
028012	**Trent at Yoxall** C.A: 1229.0 km^2	**59..85**	**774**		**321**		**12.52**	**126.6**	**05/12 1960**	**1.90**	**27/08 1976**	**20.7**	**9.81**	**5.04**
M.A: NRA-ST	Level: 56m Local Number: 12													
F.A.R: SRPGEI	B.F.I: .70 Sensitivity: 4.1	1986	820	106	449	140	17.51	93.2	11/01	6.99	17/07	31.0	13.44	8.28
Comment: Velocity-area station. Two gauging sites have been used, the second began in 1974. The first closed after river regrading in 1976. Earlier record indifferent. Bypassed at the highest flows. Weed growth requires summer rating adjustments. Substantial flow modification. Large gravel terraces provide storage alongside the main river. # Large diverse catchment with Coal Measures in the headwaters and Triassic marl elsewhere, with extensive superficial cover. Mixed farming, sand and gravel extraction, industrial development.		1987	777	100	479	149	18.67	**128.4**	**24/08**	8.45	15/09	32.1	15.63	9.63
		1988	792	102	344	107	13.37	79.0	15/03	5.06	24/06	28.2	8.84	5.84
		1989	683	88	267	83	10.39	60.1	22/12	3.76	25/07	19.3	7.60	4.24
		1990	697	90	262	82	10.20	72.1	29/01	2.71	01/09	19.2	7.23	3.38
028015	**Idle at Mattersey** C.A: 529.0 km^2	65..85	*669*		232		3.89	18.5	02/06 1983	0.75	18/07 1965	7.0	3.78	1.99
M.A: NRA-ST	Level: 4m Local Number: 15													
F.A.R: SRGE	B.F.I: .79 Sensitivity:	1986	738	110	198	85	3.32	11.8	10/01	1.28	19/07	5.4	3.02	1.68
Comment: Originally, VA station prone to severe seasonal weed growth and unstable ratings; EM gauge since 1982 in a reach between two bridges and trapezoidal flood banks. Fully contained. Data telemetered to West Stockwith PS. Slow response. Lowest flows may be unreliable; not infilled by estimates. # Low relief catchment, moderate in the headwaters. Tributaries rise on the Magnesian Lst, then traverse outcrop Triassic sst. Lower reaches underlain by alluvium and Keuper Marl. Predominantly rural, arable farming; Mansfield in the headwaters.		1987	699	104	205	88	3.43	13.7	07/04	1.80	11/07	4.9	3.18	2.05
		1988	625	93	189	81	3.16	10.4	24/01	1.32	24/06	5.2	2.65	1.82
		1989	594	89	138	59	2.31	10.0	19/12	0.75	23/07	3.9	1.93	0.91
		1990	582	87	134	58	2.25	12.5	08/02	0.49	10/08	4.3	1.82	0.74
028018	**Dove at Marston on Dove** C.A: 883.2 km^2	**61..85**	**948**		**495**		**13.87**	**202.8**	**31/12 1981**	**1.65**	**23/08 1976**	**27.4**	**10.08**	**3.73**
M.A: NRA-ST	Level: 47m Local Number: 18													
F.A.R: SRPG	B.F.I: .61 Sensitivity: 5.8	1986	1050	111	587	119	16.43	191.4	11/01	4.10	17/10	34.1	11.60	4.41
Comment: Velocity-area station up to 1974 when Flat V profile installed. Prone to weed growth; not reliable at high flows; drowns out, very wide floodplain. Small bypass (Tutbury Mill Fleam) not included in flow values (<5% of flow). Moderately affected by imports. Much storage in alluvium, terrace and fluvio-glacial gravel. # Middle and upper reaches drain peat moorland over Carb. L'st and Millstone Grit. Lower reaches broad and meandering. Below Rocester, Triassic sandstone and Keuper Marl. Pasture, forestry and mixed farming.		1987	956	101	548	111	15.34	123.6	01/01	5.72	15/09	27.7	12.24	6.33
		1988	1007	106	548	111	15.30	135.2	24/01	5.14	24/06	27.5	10.84	6.49
		1989	848	89	393	79	11.02	106.9	21/12	3.11	01/10	24.4	7.34	3.28
		1990	911	96	396	80	11.10	123.4	28/01	2.71	16/09	25.0	7.02	2.86
028019	**Trent at Drakelow Park** C.A: 3072.0 km^2	**66-85**	**728**		**365**		**35.58**	**363.2**	**31/12 1981**	**6.00**	**23/08 1976**	**63.7**	**27.05**	**14.75**
M.A: NRA-ST	Level: 43m Local Number: 19													
F.A.R: PGE	B.F.I: .66 Sensitivity: 3.5	1986	770	106	397	109	38.67	208.8	11/01	13.69	01/10	74.1	28.46	15.18
Comment: Velocity-area station. Complex rating history owing to river regrading (1965 and 1973). High flow precision limited by ungauged flow over left bank. Flows substantially modified, particularly by imports into the Tame system. Much storage in valley gravels. # Very large catchment. Small areas of Coal Measures in the Stoke area; about 25% covered with Boulder Clay and 10% by valley gravel, terraces and alluvium. Drift free areas mostly Keuper Marl and sandstone. Large urban industrial areas, otherwise mixed farming.		1987	742	102	427	117	41.56	182.6	25/08	18.56	01/10	68.2	33.81	20.13
		1988	732	101	396	108	38.44	334.1	13/03	14.85	16/11	72.7	28.06	17.18
		1989	678	93	308	84	30.00	178.0	20/12	11.12	26/07	52.1	20.91	11.90
		1990	631	87	304	83	29.58	211.6	08/02	9.89	07/08	56.7	19.86	11.29
028022	**Trent at North Muskham** C.A: 8231.0 km^2	**68..85**	*754*		**348**		**90.87**	**1006.0**	**26/02 1977**	**15.43**	**23/08 1976**	**177.1**	**67.06**	**29.63**
M.A: NRA-ST	Level: 5m Local Number: 22													
F.A.R: SRPGEI	B.F.I: .66 Sensitivity: 7.9	1986	823	109										
Comment: Velocity-area station, cableway span 105m; lowest gauge above tidal limit. Backwater effects from Cromwell Lock d/s affect high flow rating. At stages above 7.8m, the station is bypassed on rb, but volumes are not great. Very substantial flow modifications owing to imports, WRW's, cooling water and industrial usage. # Largest gauged catchment on the Trent, with the gamut of land use. Predominantly impervious owing to glacial clay and Triassic Marl, but some sandstone and limestone (Dove, Derwent, d/s Nottingham).		1987	773	103	386	111	100.65	467.6	02/01	36.05	01/10	183.8	84.68	39.91
		1988	774	103	368	106	95.73	498.2	26/01	33.41	25/06	208.5	66.23	39.94
		1989	711	94	276	79	72.02	397.1	22/12	18.07	24/07	161.8	47.45	23.90
		1990	684	91	272	78	70.92	459.7	09/02	21.74	10/09	169.1	44.62	22.96
028024	**Wreake at Syston Mill** C.A: 413.8 km^2	**67..85**	*627*		**219**		**2.88**	**99.8**	**09/03 1975**	**0.09**	**27/08 1976**	**6.7**	**1.04**	**0.29**
M.A: NRA-ST	Level: 48m Local Number: 24													
F.A.R: GE	B.F.I: .42 Sensitivity: 15.7	1986	675	108										
Comment: Originally, Crump profile weir 4.6m wide, low modular limit, replaced 1982 with EM gauge. Difficult to gauge; v. low velocities at low flows, station bypassed at high. Fast response. Significant augmentation from WRWs. # Moderate relief catchment, draining west from the Oolitic lst scarp. Predominantly boulder clay overlying Liassic clays. Rural catchment, mixed farming, containing Melton Mowbray.		1987	681	109	251	115	3.30	28.9	07/04	0.39	06/08	7.7	1.92	0.51
		1988	598	95	186	85	2.43	35.2	23/01	0.32	30/09	6.2	0.99	0.43
		1989	631	101	179	82	2.34	34.6	18/12	0.35	14/10	4.8	0.91	0.47
		1990	517	82	140	64	1.84	34.0	08/02	0.29	08/09	4.2	0.74	0.37

			Period	Rainfall (mm)	% of pre-1986	Runoff (mm)	% of pre-1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
028026	**Anker at Polesworth**	C.A: 368.0 km²	**66..85**	*647*		**242**		**2.82**	**74.0**	**30/12 1981**	**0.23**	**26/08 1976**	**5.9**	**1.56**	**0.61**
M.A: NRA-ST	Level: 60m	Local Number: 26													
F.A.R: GE	B.F.I: .49	Sensitivity: 15.1	1986	698	108										
Comment: Crump profile weir with flanking floodbanks to contain out-of-channel flows. Cableway and downstream recorder. Low modular limit, prone to weed growth. Substantial modification owing to PWS imports to the catchment. Quite responsive. # Predominantly agricultural catchment (although containing Nuneaton and Hinkley). Lower reaches drain sandstone of the Coal Measures. Triassic sandstone and Keuper Marl over the remainder of the catchment are widely blanketed with Boulder Clay.			1987	678	105	291	120	3.39	41.6	20/06	0.87	02/10	6.5	2.13	0.99
			1988	664	103	275	114	3.20	**75.6**	**24/01**	0.82	24/06	7.0	1.64	0.98
			1989	691	107	241	100	2.82	56.8	15/12	0.69	27/07	4.9	1.44	0.78
			1990	566	87	214	88	2.50	46.6	08/02	0.52	05/08	5.1	1.10	0.59
028031	**Manifold at Ilam**	C.A: 148.5 km²	**68-85**	*1089*		**752**		**3.54**	**137.0**	**10/08 1971**	**0.31**	**27/08 1976**	**7.5**	**2.43**	**0.67**
M.A: NRA-ST	Level: 131m	Local Number: 31													
F.A.R: PE	B.F.I: .54	Sensitivity: 18.1	1986	1220	112	931	124	4.38	68.7	25/11	0.76	17/10	10.3	2.82	0.82
Comment: Crump profile weir, 12.5m wide, modular to bankfull in a straight reach, rocky bed, somewhat insensitive. Potentially excellent station. Minimal interference from PWS. # The headwaters are of moderate relief and drain sandstone and mudstone of the Millstone Grit; the middle reach has cut deep gorges through Carboniferous Limestone. Responsive catchment. Sheep grazing and moorland.			1987	1086	100	844	112	3.97	41.7	23/08	1.26	01/06	7.7	2.95	1.49
			1988	1165	107	852	113	4.00	56.4	24/01	0.96	24/06	7.7	2.80	1.37
			1989	988	91	583	78	2.75	48.5	28/02	0.39	05/10	6.6	1.55	0.45
			1990	1073	99	631	84	2.97	51.1	27/01	0.43	16/09	7.5	1.59	0.48
028039	**Rea at Calthorpe Park**	C.A: 74.0 km²	**67..85**	*803*		**355**		**0.83**	**54.0**	**30/12 1981**	**0.18**	**20/09 1976**	**1.6**	**0.52**	**0.26**
M.A: NRA-ST	Level: 104m	Local Number: 39													
F.A.R: E	B.F.I: .48	Sensitivity: 11.5	1986	839	104	374	105	0.88	29.4	25/08	0.24	27/09	1.7	0.53	0.30
Comment: Crump profile weir, 3.66m wide, with flanking broad-crested weirs set in a formalised, roughly rectangular channel. Model rated. High flow gauged off nearby footbridge, but hazardous owing to high velocities. Significant imports modify flow regime. # Almost totally urbanised catchment overlying clay except in the headwaters in the Lickey Hills. Very responsive, used for flood forecasting.			1987	796	99	362	102	0.85	46.4	23/08	0.24	20/08	1.5	0.56	0.28
			1988	787	98	348	98	0.81	36.7	01/01	0.21	17/08	1.5	0.49	0.32
			1989	735	92	302	85	0.71	27.4	06/07	0.20	21/06	1.3	0.39	0.23
			1990	659	82	292	82	0.69	21.6	25/12	0.19	16/08	1.3	0.41	0.24
028040	**Trent at Stoke on Trent**	C.A: 53.2 km²	**68-85**	*861*		**408**		**0.69**	**15.9**	**28/01 1978**	**0.10**	**25/07 1984**	**1.4**	**0.43**	**0.18**
M.A: NRA-ST	Level: 113m	Local Number: 40													
F.A.R: SGE	B.F.I: .47	Sensitivity: 18.3	1986	937	109	407	100	0.69	9.9	30/12	0.12	20/08	1.7	0.34	0.14
Comment: Crump profile weir, 4.12m wide, modular throughout range. Liable to collect rubbish. Affected by an impounding reservoir, discharges from three WRWs, plus mine drainage. Substantial flow modification in early record but reduced to significant through the '80s. # Moderate relief catchment, significantly urbanised at Biddulph and Stoke on Trent, draining the Coal Measures; about a quarter of the catchment is covered with Boulder Clay. Responsive.			1987	920	107	458	112	0.77	**48.4**	**23/08**	0.16	14/07	1.4	0.44	0.18
			1988	952	111	365	89	0.61	10.3	13/03	0.12	23/06	1.2	0.34	0.15
			1989	802	93	277	68	0.47	9.2	08/11	**0.09**	**03/10**	1.0	0.29	0.10
			1990	869	101	307	75	0.52	10.3	27/01	**0.08**	**11/08**	1.2	0.26	0.11
028043	**Derwent at Chatsworth**	C.A: 335.0 km²	**68..85**	**1182**		**577**		**6.13**	**175.4**	**12/04 1970**	**0.60**	**19/08 1984**	**13.0**	**3.48**	**1.50**
M.A: NRA-ST	Level: 99m	Local Number: 43													
F.A.R: SRP	B.F.I: .56	Sensitivity: 12.9	1986	1449	123	858	149	9.11	72.6	10/01	1.23	24/08	23.0	5.15	1.45
Comment: Velocity-area station approx. 36m wide at bankfull. Cableway span 51m. D/s shoal as a control, but shoal and rating are not too stable. All but extreme flows contained. Substantially affected by Derwent reservoirs. # Upland catchment with peat covered moorlands in the headwaters. Some right bank tributaries drain the Carboniferous Limestone. Quite responsive. Important flood forecasting station. Predominantly pasture.			1987	1128	95	664	115	7.06	58.7	01/01	2.06	31/05	15.3	4.80	2.47
			1988	1301	110	764	132	8.10	93.6	15/03	1.64	28/06	19.6	4.82	2.17
			1989	1041	88	498	86	5.29	94.5	24/03	1.38	08/08	12.4	2.64	1.50
			1990	1110	94	455	79	4.83	55.6	07/02	1.46	14/07	13.2	2.27	
028046	**Dove at Izaak Walton**	C.A: 83.0 km²	**69-85**	**1119**		**733**		**1.93**	**20.7**	**21/11 1971**	**0.30**	**09/09 1976**	**3.5**	**1.61**	**0.57**
M.A: NRA-ST	Level: 131m	Local Number: 46													
F.A.R: EN	B.F.I: .79	Sensitivity: 9.4	1986	1293	116	885	121	2.33	14.7	30/12	0.64	17/10	4.2	2.10	0.70
Comment: Crump profile Flat V weir, 7.59m wide, deep vertical sidewalls, modular to bankfull. At high flows may bypass on the lb. Excellent station, narrower than the main channel and thus self cleaning. Natural catchment. # Long narrow catchment. Upper reaches on Millstone Grit mudstone and sandstone. Lh watershed is formed by a steep Carboniferous Limestone ridge. Passage across limestone characterised by deep gorges (Wolfscote Dale, Dove Dale). Moorland.			1987	1104	99	846	115	2.23	11.2	05/10	0.89	15/09	3.5	2.04	1.01
			1988	1235	110	871	119	2.29	13.0	15/03	0.96	24/06	4.0	1.94	1.10
			1989	1063	95	641	87	1.69	11.0	24/03	0.49	05/10	3.3	1.40	0.52
			1990	1129	101	629	86	1.66	9.9	27/01	0.42	17/09	3.7	1.21	0.47
028048	**Amber at Wingfield Park**	C.A: 139.0 km²	**71-85**	*784*		**318**		**1.40**	**30.9**	**25/02 1977**	**0.03**	**09/08 1972**	**2.9**	**0.79**	**0.33**
M.A: NRA-ST	Level: 71m	Local Number: 48													
F.A.R: SRPG	B.F.I: .50	Sensitivity: 22.0	1986	914	117	377	119	1.66	30.2	10/01	0.33	04/10	3.6	0.92	0.41
Comment: Crump profile Flat V weir, 5.49m at vee full, in a trapezoidal channel. Higher flows gauged from a bridge u/s. At extreme flows bypassed on rb. Fairly low modular limit. Contains Ogsten PWS reservoir; substantial augmentation from mine pumping and sewage. # Upland catchment with moorland headwaters. Upper half of the catchment drains Millstone Grit, partially blanketed with Boulder Clay. Bisects the limestone and tuff inlier of the Ashover Dome. Lower half, Coal Measures.			1987	811	103	334	105	1.47	27.1	07/04	0.38	28/09	2.8	1.03	0.49
			1988	804	103	297	93	1.31	21.6	24/01	0.39	15/09	2.8	0.81	0.47
			1989	738	94	263	83	1.16	28.8	24/02			2.3	0.57	0.34
			1990	763	97	281	88	1.24	27.2	28/01	0.22	04/09	3.0	0.56	0.32
028050	**Torne at Auckley**	C.A: 135.5 km²	**71..85**	*629*		**236**		**1.02**	**29.6**	**17/07 1973**	**0.16**	**06/09 1976**	**1.6**	**0.69**	**0.32**
M.A: NRA-ST	Level: 2m	Local Number: 50													
F.A.R: GE	B.F.I: .67	Sensitivity: 12.5	1986	692	110										
Comment: Crump profile Flat V weir in trapezoidal channel, 8.9m wide at vee full. Original cableway removed. Bypassing unlikely; may inundate flanks. Backing up from artificial drainage and/or summer weed growth renders high range unreliable. Sluggish response. Substantial flow augmentation from WRWs and mine drainage. # The Torne rises on the dip slope of the Magnesian Limestone and Bunter Sandstone but soon enters the Trent/Humber ancient floodplain. Tidally drained. Contains mine workings and agriculture.			1987	689	110											
			1988	573	91										
			1989	574	91	161	68	0.69	3.9d	13/04	0.30	22/08	1.2	0.55	0.34
			1990	518	82	158	67	0.68	7.5d	28/01	0.23	05/08	1.4	0.46	0.28
028052	**Sow at Great Bridgford**	C.A: 163.0 km²	**71..85**	*753*		**227**		**1.17**	**18.8**	**11/02 1977**	**0.12**	**31/08 1976**	**2.2**	**0.90**	**0.34**
M.A: NRA-ST	Level: 77m	Local Number: 52													
F.A.R: GE	B.F.I: .67	Sensitivity: 11.6	1986	835	111										
Comment: Crump profile Flat V weir, 9.1m wide, in trapezoidal channel, with floodbanks to contain out of channel flows. Cableway. Rating problems, variable drowning, weed growth. Modest interference from sewage effluent and groundwater pumping for PWS. # Low relief agricultural catchment, primarily on Keuper Marl, with some Triassic sandstone in the headwaters and glacial gravel in the valleys which maintain baseflows.			1987	792	105	246	108	1.27	9.8	19/06	0.55	19/08	2.1	1.00	0.59
			1988	785	104	247	109	1.28	9.5	24/01	0.52	10/08	2.5	0.85	0.56
			1989	682	91	168	74	0.87	7.0	21/12	0.34	24/08	1.7	0.61	0.36
			1990	702	93	166	73	0.86	9.8	28/01	0.23	12/08	1.8	0.54	0.27
028056	**Rothley Brook at Rothley**	C.A: 94.0 km²	**73..85**	*676*		**267**		**0.80**	**18.8**	**24/02 1977**	**0.06**	**21/08 1976**	**1.6**	**0.43**	**0.15**
M.A: NRA-ST	Level: 47m	Local Number: 56													
F.A.R:	B.F.I: .48	Sensitivity: 17.7	1986	689	102										
Comment: Crump profile Flat V weir in a trapezoidal channel. Possibility of bypassing on rb. Well rated, but backs up from d/s road bridge at highest flows. Substantial imports enter the river from WRWs. # Predominantly rural, but drains a portion of NW Leicester and contains number of small towns. Mostly Boulder Clay covering Keuper Marl, but the ancient Charnwood Forest rocks (Pre-Cambrian) outcrop to the north.			1987	707	105	317	119	0.94	14.7	19/06	0.14	02/10	2.0	0.60	0.22
			1988	671	99	267	100	0.79	15.5	24/01	0.17	01/10	1.9	0.40	0.19
			1989	702	104	237	89	0.71	10.8	14/12	0.13	15/10	1.3	0.34	0.16
			1990	579	86	201	75	0.60	13.4	08/02	0.09	05/08	1.3	0.25	0.11

		Period	Rainfall (mm)	% of pre-1986	Runoff (mm)	% of pre-1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
028060	**Dover Beck at Lowdham** C.A: 69.0 km²	**72..85**	*686*		**74**		**0.16**	**11.6**	**27/05 1972**	**0.03**	**26/08 1976**	**0.3**	**0.11**	**0.06**
M.A: NRA-ST	Level: 28m Local Number: 60													
F.A.R: G	B.F.I: .77 Sensitivity: 8.0	1986	713	104										
Comment: Crump profile Flat V weir (1:10) in a trapezoidal (1:1) channel. Subject to weed growth; low modular limit. Sluggish response, baseflow dominated. Affected by spray irrigation abstraction and minor WRW effluent. # The river drains SE from a moderate to low relief catchment. The bulk of the catchment comprises outcrop Triassic sst; flanking hills nearer the gauge are of Keuper Marl. Entirely rural, mixed farming		1987	697	102										
		1988	651	95										
		1989	626	91	44	59	0.10	1.3	24/05	**0.03**	**25/10**	0.2	0.06	0.04
		1990	604	88	46	62	0.10	2.0	07/02	0.03	08/08	0.2	0.06	0.03
028061	**Churnet at Basford Bridge** C.A: 139.0 km²	**75..85**	**973**		**518**		**2.28**	**29.1**	**03/01 1980**	**0.39**	**18/09 1976**	**5.0**	**1.32**	**0.62**
M.A: NRA-ST	Level: 133m Local Number: 61													
F.A.R:	B.F.I: .46 Sensitivity: 35.2	1986	1071	110										
Comment: Crump profile Flat V weir in a trapezoidal channel. Drowns out owing to weed growth. Substantial modification to flow regime by exports from reservoirs and imports via WRWs and industrial usage. Prescribed flow point. Replaced 28042 in 1975. # A catchment of moderate relief with a mixed geology; primarily sandstone and shale of the Millstone Grit and Coal Measures, with some blanketing of Boulder Clay and glacial sand and gravel. Contains Leek, but otherwise low grade agriculture or pasture.		1987	1001	103	440	85	1.94	**65.5**	**23/08**	0.61	25/05	3.6	1.19	0.67
		1988	1033	106	427	82	1.88	32.6	13/03	0.56	24/06	3.6	1.10	0.63
		1989	895	92	293	57	1.29	21.9	08/11	**0.33**	**10/09**	2.6	0.81	0.38
		1990	956	98	324	63	1.43	31.7	01/11	**0.27**	**15/09**	3.3	0.69	0.33
028066	**Cole at Coleshill** C.A: 130.0 km²	**73-85**	**727**		**234**		**0.97**	**24.4**	**30/05 1979**	**0.07**	**22/08 1976**	**2.0**	**0.60**	**0.20**
M.A: NRA-ST	Level: 79m Local Number: 66													
F.A.R: EI	B.F.I: .44 Sensitivity: 26.7	1986	792	109	242	103	1.00	14.7	25/08	0.17	17/07	2.3	0.59	0.20
Comment: Crump profile Flat V in a trapezoidal channel, 10.9m at vee full, with floodbanks to contain out-of-channel flow. Cableway, 48m wide, extends across floodbanks. Highest flows inundate a narrow floodplain. Minimal modification to flows. # Substantially urbanised catchment. Underlying geology is Keuper Marl with extensive coverings of Boulder Clay and glacial sand and gravel. Responsive.		1987	757	104	253	108	1.04	22.4	22/08	0.19	07/07	1.9	0.68	0.29
		1988	722	99	229	98	0.94	14.5	02/01	0.22	23/06	2.2	0.55	0.26
		1989	730	100	205	88	0.84	15.4	14/12	0.16	07/09	1.8	0.41	0.18
		1990	617	85	191	82	0.79	16.7	07/02	0.12	07/08	1.9	0.39	0.14
028067	**Derwent at Church Wilne** C.A: 1177.5 km²	**73-85**	**1001**		**511**		**19.07**	**215.7**	**25/02 1977**	**2.76**	**22/09 1976**	**39.1**	**13.31**	**5.17**
M.A: NRA-ST	Level: 31m Local Number: 67													
F.A.R: SPEI	B.F.I: .65 Sensitivity: 5.4	1986	1161	116	641	125	23.92	194.1	10/01	4.63	12/10	55.4	16.64	5.92
Comment: Large Crump profile Flat V weir, 27m wide, in trapezoidal channel. No cableway. Very broad floodplain. 20km d/s of Longbridge; substantial abstractions and returns between the two. High flows by extrapolation from Longbridge and gaugings at Draycott. Prescribed flow point. # Large catchment with moorland headwaters on Carboniferous Grit and L'st. Lower reaches on Triassic sandstone and marl. Valley broadens considerably below Derby with extensive sand and gravel terraces. Range of agricultural and industrial activity.		1987	967	97	562	110	20.99	158.1	01/01	6.96	13/09	36.1	17.34	8.63
		1988	1067	107	575	113	21.41	167.9	15/03	6.60	20/06	45.6	15.41	8.02
		1989	906	91	414	81	15.45	130.8	24/03	3.51	12/10	36.6	9.58	4.43
		1990	950	95	405	79	15.12	145.6	08/02	3.81	23/09	37.5	9.21	4.34
028079	**Meece at Shallowford** C.A: 86.3 km²	81-85			218		0.60	10.8	30/12 1981	0.08	02/09 1984		0.41	0.13
M.A: NRA-ST	Level: 81m Local Number: 79													
F.A.R: EI	B.F.I: .64 Sensitivity:	1986	844		240	110	0.66	7.7	10/01	0.16	20/08	1.4	0.46	0.17
Comment: Crump profile Flat V weir, 5m wide, 1:10 cross-slopes, with crest tapping. Cableway for out-of-bank flows. Backs up from d/s bridge. Moderate interference from groundwater pumping and sewage effluent. Baseflow maintained by glacial valley gravel. # Low relief, agricultural catchment, draining Bunter sandstone in the headwaters, Keuper Marl otherwise.		1987	796		264	121	0.72	7.9	19/06	0.25	03/10	1.2	0.59	0.29
		1988	795		255	117	0.70	7.7	24/01	0.25	25/06	1.3	0.46	0.27
		1989	686		179	82	0.49	5.0	24/02	0.14	18/10	1.0	0.33	0.16
		1990	714		169	78	0.46	8.9	28/01	0.09	05/08	1.0	0.26	0.10
028080	**Tame at Lea Marston Lakes** C.A: 799.0 km²	**57..85**	**728**		**534**		**13.54**	**219.2**	**30/12 1981**	**4.93**	**09/08 1959**	**22.6**	**10.83**	**7.18**
M.A: NRA-ST	Level: 66m Local Number: 80													
F.A.R: EI	B.F.I: .69 Sensitivity:	1986	781	107	590	110	14.95	142.2	26/08	7.56	12/10	25.3	11.57	8.05
Comment: Unusual twin bay, chevron shaped Crump profile weirs, 21.5m total length, discharging into an inline settlement lagoon. Bypassed at very high flows, poor flow estimation under these conditions. Replaces 28004. Substantial flow modification, large imports. # Substantially urbanised. Solid geology Keuper Marl but subordinate to extensive cover of Boulder Clay and glacial sand and gravel in equal proportion.		1987	749	103	600	112	15.20	159.7	19/06	8.28	27/09	22.2	12.41	8.85
		1988	722	99	560	105	14.16	122.2	23/01	7.76	17/09	23.9	11.05	8.26
		1989	712	98	509	95	12.91	139.3	14/12	6.82	28/08	19.3	9.58	7.13
		1990	607	83	490	92	12.41	133.4	07/02	6.42	27/08	20.5	9.37	6.80
028081	**Tame at Bescot** C.A: 169.0 km²	82..85			564		3.02	34.4	31/05 1983	1.24	01/08 1984	4.5	2.39	1.51
M.A: NRA-ST	Level: 108m Local Number: 81													
F.A.R: EI	B.F.I: .70 Sensitivity:	1986	775		515	91	2.76					4.6	2.19	1.41
Comment: Trapezoidal flume as the invert of the access bridge. High flow rating subject to hysteresis. Has been operated as an EM gauge but bed insulation removed. Substantial imports from WRWs. Above 70 m^3s^{-1} (design flow) a washland overspill u/s operates. # Entirely urbanised catchment just below confluence of the upper Tame branches. Solid geology, Coal Measures, about 50% covered by Boulder Clay and sand and gravel. Very responsive.		1987	743		518	92	2.78	45.7	23/08	1.38	29/05	4.2	2.22	1.60
		1988	734		527	93	2.82	17.1	10/07	1.76	24/06	4.2	2.26	1.88
		1989	692		433	77	2.32	28.4	24/12	1.08	02/09	3.6	1.95	1.15
		1990	612		365	65	1.96	32.4	07/02	0.63	03/05	3.5	1.49	0.87
028082	**Soar at Littlethorpe** C.A: 183.9 km²	**71..85**	*630*		**254**		**1.48**	**24.5**	**02/02 1979**	**0.11**	**26/08 1976**	**3.3**	**0.76**	**0.30**
M.A: NRA-ST	Level: 61m Local Number: 82													
F.A.R: E	B.F.I: .51 Sensitivity:	1986	679	108	255	100	1.49	16.8	10/01	0.33	17/07	3.2	0.97	0.40
Comment: Electromagnetic station in a straight reach. Flood relief channel joins on the rb just u/s. Prone to weed growth. Very low velocities at lowest flows may yield unreliable data, which are not archived. Substantial imports via WRWs. Replaces Narborough (28051). Records combined. # Predominantly agricultural catchment just south of Leicester. Extensive Boulder Clay and glacial gravel cover; Keuper sediments in some valley flanks. Significant river terraces and alluvium in lower reaches.		1987	683	108	293	115	1.71	16.3	05/04	0.41	07/08	3.5	1.14	0.49
		1988	642	102	231	91	1.34	23.5	24/01	0.34	17/08	3.1	0.68	0.39
		1989	697	111	210	83	1.22	20.6	14/12	0.30	21/07	2.5	0.64	0.34
		1990	534	85	170	67	0.99	17.5	07/02	0.21	09/08	2.2	0.49	0.26
028083	**Trent at Darlaston** C.A: 195.2 km²	82-85			630		3.90	39.2	04/01 1983	1.27	23/11 1983	6.5	3.07	1.64
M.A: NRA-ST	Level: m Local Number: 83													
F.A.R: PEI	B.F.I: .66 Sensitivity:	1986	901		715	113	4.43					8.4	3.31	1.80
Comment: Multipath US gauge installed beneath A34 road bridge on a gentle curve. Station undermined in a 1987 flood, reconstructed 1990/1. Out-of-bank flow gauged by transducers between bridge abutments. Flow regime dominated by Strongford WRW discharge (Stoke-on-Trent). Quite responsive. # Moderate relief catchment, substantially urbanised with Potteries, Biddulph and Leek. Geology, Coal Measures and Marls, Millstone Grit and subordinate Triassic sst, widely covered by boulder clay. Mining, industrial and mixed agricultural land use.		1987	855												
		1988	869											
		1989	742											
		1990	805		539	86	3.33	33.1	27/01	1.08	24/07	6.2	2.36	1.42
028085	**Derwent at St. Marys Bridge** C.A: 1054.0 km²	**35..85**	**998**		**528**		**17.66**	**334.2d**	**10/12 1965**	**1.66**	**28/08 1984**	**36.3**	**12.11**	**5.07**
M.A: NRA-ST	Level: 44m Local Number: 85													
F.A.R: SRPGEI	B.F.I: .62 Sensitivity:	1986	1202	120	645	122	21.56	152.8	10/01	4.18	12/10	50.4	15.00	4.53
Comment: Ten-channel, interleaved cross path US gauge in the centre of Derby, 1.75km ds of Longbridge Weir (28010). Record continuous with 28010. Peaks from 1976 only. Derby may flood but bypassing small. Substantial flow modification owing to Derwent reservoirs, milling and PWS abstractions. # Large, predominantly upland catchment draining Millstone Grit and Carb. Lst. Lower reaches drain Coal Measures on the lb and Triassic sandstones and marls on the rb. Peat moorland headwaters; forestry, pasture and some arable.		1987	993	99	535	101	17.89	130.8	01/01	4.85	21/08	31.6	14.65	6.16
		1988	1104	111	541	102	18.03	137.7	15/03	4.81	03/07	40.8	12.48	5.95
		1989	930	93	389	74	13.01	129.6	24/03	3.42	17/10	32.3	7.40	3.87
		1990	977	98	381	72	12.74	123.8	07/02	2.67	23/09	34.7	6.73	3.84

		Period	Rainfall (mm)	% of pre-1986	Runoff (mm)	% of pre-1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
028086	**Sence at South Wigston** C.A: 113.0 km²	**71..85**	*628*		**298**		**1.07**	**23.6**	**09/03**	**0.00**	**02/09**	**2.4**	**0.48**	**0.15**
M.A: NRA-ST	Level: 66m Local Number: 86								**1975**		**1984**			
F.A.R: EI	B.F.I: .39 Sensitivity:	1986	716	114	261	88	0.94	14.1	10/01	0.10	18/07	2.2	0.49	0.13
Comment: EM gauge set in 1:1 formalised banks and flood embankment, 20m d/s of the control (dismantled railway bridge). Sharp bend immediately d/s, mill stream confluence u/s. Substantially augmented by WRW discharges, particularly Wigston. Moderately responsive. Replaces Blaby (28054). # Moderate to low relief catchment to the east and south of Leicester. Mainly Lower Lias (mudstones and lsts) but wholly blanketed by Boulder Clay and alluvium except for the headwaters. Urbanised at the bottom end, otherwise arable and grazing land use.		1987	698	111	310	104	1.11	**24.4**	**19/06**	0.17	13/07	2.6	0.61	0.19
		1988	624	99	253	85	0.90	**30.2**	**24/01**	0.13	02/10	2.3	0.34	0.16
		1989	720	115	241	81	0.86	29.5	14/12	0.11	02/09	1.7	0.34	0.14
		1990	521	83	167	56	0.60	14.5	07/02	0.08	09/09	1.4	0.23	0.10
028091	**Ryton at Blyth** C.A: 231.0 km²	84..85						13.4	11/04	0.60	30/07			
M.A: NRA-ST	Level: 8m Local Number: 91								1985		1984			
F.A.R: EI	B.F.I: .72 Sensitivity:	1986	732		279		2.04	12.0	30/01	0.76	17/07	3.7	1.61	0.94
Comment: EM station in a straight reach, d/s of a gentle bend. Data transmitted to West Stockwith PS to control regime to the tidal Trent. Extreme events only would overtop flood banks. Deep, slow, baseflow dominated flow regime. Replaces 28016. Moderate net effect on flows by WRWs and abstraction. # Moderate and low relief catchment. Headwaters drain Magnesian Lst; bulk underlain by Permian Marl and Triassic Sst. Mainly Drift free. Apart from Worksop, wholly rural, mainly arable farming.		1987	706		296		2.17	21.8	07/04	0.89	09/07	3.4	1.80	1.08
		1988	620		230		1.68	12.7	06/01	0.52	19/06	3.2	1.20	0.68
		1989	590		133		0.98	9.5	14/12	0.20	23/06	1.6	0.75	0.28
		1990	558		157		1.15	13.1	28/01	0.15	05/08	2.5	0.79	0.30
028093	**Soar at Pillings Lock** C.A: 1108.4 km²													
M.A: NRA-ST	Level: 38m Local Number: 93													
F.A.R: SPEI	B.F.I: .53 Sensitivity:	1986	679											
Comment: Multipath US set in Soar Navigation (merges with Grand Union Canal) 100m u/s of Pillings Lock. Low banks. US transducers on the broad floodplain to calibrate out of bank flows. Very substantial flow modification from WRWs and reservoirs in Charnwood Forest. # Moderate to low relief catchment with Triassic Marls and Sst to the west and Lias clays and lsts to the east, widely blanketed in Boulder Clay. Ancient hard rocks outcrop in Charnwood Forest. Lower catchment dominated by Leicester; head waters rural.		1987	685		330		11.58	68.4	06/04	3.32	08/08	24.1	7.97	3.63
		1988	621		270		9.46	113.4	24/01	2.87	02/10	22.1	5.06	3.15
		1989	671											
		1990	532		191		6.71	84.0	06/02	1.74	16/09	14.2	3.56	2.11
054001	**Severn at Bewdley** C.A: 4325.0 km²	**21-85**	**918**		**452**		**61.96**	**637.1d**	**21/03**	**5.99**	**04/09**	**147.4**	**37.82**	**11.36**
M.A: NRA-ST	Level: 17m Local Number: 1								**1947**		**1976**			
F.A.R: SRPGEI	B.F.I: .53 Sensitivity: 3.3	1986	974	106	479	106	65.76	314.9	12/01	8.28	19/07	160.5	38.57	10.21
Comment: Velocity-area station with rock control. Peak flows from 1972. Stage monitoring site relocated in 1950 and 1970; lowest flows not reliable in earlier record. US gauge since 1988. Sig. exports for PWS and CEGB; minimum flow maintained by Clywedog releases. Naturalised flow series accommodates major usages. # Diverse catchment; wet western 50% from impermeable Palaeozoic rocks and river gravels; drier northern 50% from Drift covered Carboniferous to Liassic sandstones and marls. Moorland, forestry, mixed farming.		1987	901	98	401	89	55.04	351.9	02/01	9.78	12/07	129.7	32.31	12.70
		1988	966	105	485	107	66.30	375.2	26/01	9.24	25/06	152.3	38.86	16.02
		1989	868	95	380	84	52.13	342.3	19/12	8.17	22/08	138.7	21.98	8.89
		1990	900	98	402	89	55.13	419.8	01/02	8.41	18/06	143.3	23.04	9.53
054002	**Avon at Evesham** C.A: 2210.0 km²	**36-85**	*666*		**214**		**15.03**	**371.0**	**11/07**	**1.27**	**09/10**	**33.5**	**8.00**	**2.52**
M.A: NRA-ST	Level: 20m Local Number: 2								**1968**		**1959**			
F.A.R: SPGEI	B.F.I: .51 Sensitivity: 15.0	1986	724	109	282	132	19.76	145.4	10/01	5.30	22/07	44.9	13.04	5.85
Comment: Velocity-area station. Recording site, control and gauging site are widely separated; recording at a site where all flows contained. Gauge site can measure out-of-bank flows. Extensive modification to flow regime from abstractions and returns. # Large catchment of low relief, draining argillaceous rocks almost exclusively. Contains many large towns, but chief land use is agriculture.		1987	691	104	297	139	20.78	137.6	20/11	5.48	29/09	41.8	14.41	6.28
		1988	654	98	248	116	17.33	192.5	24/01	4.88	21/09	42.7	9.18	5.52
		1989	666	100	207	97	14.51	134.6	19/12	4.49	24/07	31.4	7.63	4.88
		1990	545	82	192	90	13.47	164.2	08/02	3.72	25/07	27.6	6.17	4.02
054003	**Vyrnwy at Vyrnwy Reservoir** C.A: 94.3 km²	**20..85**	*1909*		**704**		**2.10**	**99.0**	**09/12**	**0.01**	**22/07**	**5.0**	**0.61**	**0.51**
M.A: NRA-NW	Level: 226m Local Number: 3								**1965**		**1979**			
F.A.R: SR	B.F.I: .35 Sensitivity:	1986	2355	123	932	132	2.79	34.2	30/12	0.29	21/03	7.2	0.59	0.32
Comment: Rectangular notch, 24.4m long on the Vyrnwy River; stone cill overflow weirs on the rivers Cownwy and Marchnant (whose flows are mostly diverted into the reservoir). Cownwy diversion has Flat V weir. Some records available from 1879, daily record from 1920. Direct supply to Liverpool. Naturalised flow sequence available. # Steep, very wet catchment draining Drift free, Silurian and Ordovician slates and shales.		1987	1793	94	595	85	1.78	67.3	27/03	0.27	06/10	4.7	0.56	0.32
		1988	2196	115	881	125	2.63	37.7	02/01	0.30	08/12	6.8	0.57	0.32
		1989	1910	100	522	74	1.56	35.3	23/03	0.28	27/12	3.7	0.57	0.31
		1990	2136	112	620	88	1.85	78.2	25/01	0.28	15/11	5.2	0.53	0.31
054004	**Sowe at Stoneleigh** C.A: 262.0 km²	**52..85**	**675**		**353**		**2.94**	**54.7**	**30/12**	**0.51**	**30/07**	**5.2**	**2.07**	**1.03**
M.A: NRA-ST	Level: 55m Local Number: 4								**1981**		**1961**			
F.A.R: GEI	B.F.I: .60 Sensitivity: 5.3	1986	750	111	409	116	3.40	34.8	25/08	1.41	19/07	6.2	2.44	1.56
Comment: Up to 1979 two humped invert flumes, total width 7.16m, and an overflow weir at 1.45m measured discharge. Rating dubious when overflow weir in operation. Since 1979 compound Crump profile weir with crest tapping. Prone to weed growth. Groundwater pumping and bulk imports lead to low flows being dominated by Coventry sewage effluent. # Substantially urbanised catchment. Western half on outcrop Coal Measures; east, the Keuper Series overlain by Boulder Clay and glacial sand and gravel.		1987	719	107	422	120	3.51	33.9	19/06	1.57	12/07	6.2	2.60	1.67
		1988	691	102	390	110	3.23	44.8	24/01	1.19	17/08	6.3	2.27	1.60
		1989	710	105	363	103	3.02	28.0	14/12	1.31	03/09	5.3	2.06	1.44
		1990	565	84	326	92	2.71	26.7	07/02	1.24	26/08	4.8	1.85	1.32
054005	**Severn at Montford** C.A: 2025.0 km²	**53-85**	**1169**		**650**		**41.77**	**467.2**	**05/12**	**1.98**	**23/05**	**103.2**	**24.49**	**5.42**
M.A: NRA-ST	Level: 52m Local Number: 5								**1960**		**1954**			
F.A.R: SRPE	B.F.I: .46 Sensitivity: 4.3	1986	1265	108	749	115	48.12	289.2	31/12	5.19	18/07	122.3	24.21	6.37
Comment: Velocity-area station. Up to 1985 cableway extended over rb floodplain only. Motorised winch now allows all flood flows to be gauged. Very prone to weed growth; considerable variations in summer S-D relations. Vyrnwy, Clywedog and other PWS abstractions have significant effect at low flows. Part of the record available naturalised. # High relief headwaters and broad bottomed valleys of moderate slope with Boulder Clay and fluvial gravel. Solid geology Ordovician slates and shales. Moorland, forestry, low grade agriculture.		1987	1109	95	672	103	43.18	282.9	19/10	4.52	09/07	105.6	27.64	5.97
		1988	1248	107	821	126	52.56	325.4	03/01	6.54	25/06	127.4	33.16	9.64
		1989	1104	94	658	101	42.27	295.3	17/12	6.47	15/06	116.1	16.35	8.25
		1990	1193	102	736	113	47.27	327.0	08/02	7.70	25/05	130.6	20.22	9.02
054006	**Stour at Kidderminster** C.A: 324.0 km²	**53-85**	**714**		**274**		**2.81**	**81.6**	**27/03**	**0.55**	**25/08**	**4.7**	**2.29**	**1.29**
M.A: NRA-ST	Level: 31m Local Number: 6								**1955**		**1976**			
F.A.R: EI	B.F.I: .72 Sensitivity: 6.2	1986	736	103	323	118	3.32	21.6	26/08	1.92	26/10	5.3	2.69	2.07
Comment: Velocity-area station in formalised trapezoidal channel; variable low flows, weed affected; out-of-bank flows estimated. Superseded by Callows Lane site from July 1987. US gauge operational from July 1990. Groundwater pumping for PWS and industry leads to substantial augmentation from sewage and industrial effluents. # Low relief, 20% urbanised. Higher ground on flanks of river drain marls and sandstone (Upper Coal Measures) but a faulted trough of Triassic sandstones is the major feature. Some Boulder Clay and valley gravel.		1987	707	99	333	122	3.42	20.2	19/06	1.89	02/10	4.9	2.78	2.09
		1988	691	97	333	122	3.41	22.9	24/01	1.66	13/11	5.4	2.78	1.99
		1989	656	92	276	101	2.84	19.6	24/02	1.34	29/08	4.4	2.13	1.51
		1990	602	84	270	99	2.77	21.4	07/02	1.39	01/09	4.3	2.23	1.47
054007	**Arrow at Broom** C.A: 319.0 km²	**57..85**	**705**		**277**		**2.81**	**90.8**	**30/12**	**0.22**	**21/08**	**5.5**	**1.69**	**0.75**
M.A: NRA-ST	Level: 30m Local Number: 104								**1981**		**1976**			
F.A.R: SGEI	B.F.I: .53 Sensitivity: 10.4	1986	772	110										
Comment: Up to 1976 rated section; not rated above bankfull when extensive inundation. Replaced in 1976 with a Crump profile weir (12m) with a higher containment capacity. Groundwater pumping for PWS significantly augments low flow through effluent returns. Contains Redditch and Alcester. # Low relief, predominantly agricultural catchment upon Keuper Marl, with small glacial gravel deposits in the eastern headwaters. Responsive; sewage effluent maintains low flows.		1987	730	104	351	127	3.55	45.1	19/11	1.27	26/09	6.1	2.34	1.36
		1988	696	99	307	111	3.10	64.4	24/01	1.16	08/10	6.4	1.85	1.23
		1989	685	97	258	93	2.61	45.9	14/12	0.84	28/07	4.3	1.54	0.98
		1990	573	81	230	83	2.32	51.2	07/02	0.72	05/08	4.5	1.23	0.79

		Period	Rainfall (mm)	% of pre-1986	Runoff (mm)	% of pre-1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
054008	**Teme at Tenbury** C.A: 1134.4 km²	**56-85**	**863**		**403**		**14.48**	**266.5**	**04/12 1960**	**0.65**	**27/08 1976**	**34.2**	**9.01**	**1.57**
M.A: NRA-ST	Level: 48m Local Number: 8													
F.A.R: EN	B.F.I: .57 Sensitivity: 6.4	1986	874	101	450	112	16.19	149.2	10/01	2.10	08/10	44.2	8.87	2.32
Comment: Velocity-area station with a gravel control. Upstream shoaling may render low flow rating variable from year to year. Rarely goes out of bank. Adjustments small and dispersed; natural catchment. # Left bank characterised by high relief hills and broad valleys. Steep and narrow on the right bank. Geology mainly Palaeozoic sediments with Pre-Cambrian crystalline rocks of the Longmynd. Relatively Drift free; some valley gravel and Boulder Clay in the lower reaches. Forestry, grazing.		1987	798	92	377	94	13.55	160.4	04/04	1.84	15/09	31.2	9.27	2.12
		1988	847	98	396	98	14.19	145.9	24/01	3.05	25/06	36.3	7.49	3.84
		1989	789	91	309	77	11.11	135.3	24/12	1.01	08/09	29.2	4.58	1.07
		1990	781	90	344	85	12.39	216.3	28/01	0.98	16/09	36.1	3.47	1.02
054012	**Tern at Walcot** C.A: 852.0 km²	**60-85**	**709**		**263**		**7.09**	**55.8**	**31/12 1981**	**0.94**	**26/08 1976**	**13.3**	**5.23**	**2.41**
M.A: NRA-ST	Level: 45m Local Number: 12													
F.A.R: GEI	B.F.I: .69 Sensitivity: 2.8	1986	712	100	255	97	6.89	45.1	11/01	2.07	18/07	13.9	5.06	2.48
Comment: Initially a rated section (1959-76), then a gabion control (1976-1978), both very prone to weed growth leading to unstable S-D relation; now a Flat V weir 15m wide. Regional groundwater pumping for PWS and Severn regulation. Industrial effluent from Wellington and Newport; abstractions for spray irrigation. Net result only moderate. # Predominantly agricultural low relief catchment. Mixed glacial geology overlying Triassic series.		1987	718	101	280	106	7.58	39.3	01/01	2.99	13/07	14.1	5.78	3.49
		1988	707	100	280	106	7.54	47.5	24/01	2.95	24/06	15.8	5.19	3.51
		1989	635	90	199	76	5.39	39.6	21/12	1.79	24/06	9.0	3.62	2.23
		1990	633	89	207	79	5.60	**60.0**	**28/01**	1.45	06/08	11.5	3.27	1.69
054014	**Severn at Abermule** C.A: 580.0 km²	**62-85**	**1249**		**744**		**13.69**	**419.1**	**13/12 1964**	**0.41**	**20/09 1976**	**33.7**	**7.64**	**1.65**
M.A: NRA-ST	Level: 83m Local Number: 14													
F.A.R: SRI	B.F.I: .42 Sensitivity: 9.1	1986	1384	111	885	119	16.28	255.0	18/11	0.87	22/09	42.1	6.90	1.71
Comment: Velocity-area station in a straight reach with a rock/gravel bed. Well rated over the whole range. Flow regime dominated by Clywedog releases when regulation in operation at low flows (from 1968). Significant abstraction for canal feeder at Penarth weir. # High relief headwaters but broad main channels of moderate slope with Boulder Clay and fluvial gravel; solid geology Ordovician slates and shales. Responsive catchment.		1987	1221	98	766	103	14.10	273.1	18/10	1.47	01/06	37.5	7.44	2.04
		1988	1367	109	906	122	16.62	175.3	23/01	1.79	24/06	40.2	9.08	2.89
		1989	1231	99	746	100	13.71	162.9	24/03	1.35	11/07	33.8	5.70	2.02
		1990	1346	108	789	106	14.51	221.2	07/02	1.04	24/05	38.8	5.71	1.71
054016	**Roden at Rodington** C.A: 259.0 km²	**61-85**	**692**		**249**		**2.05**	**30.6**	**02/07 1968**	**0.18**	**26/08 1976**	**4.4**	**1.39**	**0.48**
M.A: NRA-ST	Level: 48m Local Number: 16													
F.A.R: IN	B.F.I: .61 Sensitivity: 7.5	1986	664	96	216	87	1.78	16.0	11/01	0.38	16/07	3.9	1.21	0.47
Comment: Model tested trapezoidal flume and flanking broad-crested weirs within vertical sidewalls 7.3m apart. Tapping to measure tailwater levels. Original cableway standards still present. Channel prone to troublesome weed growth. Net effect of groundwater abstractions and returns insignificant; minor seasonal influence from spray irrigation. # An unresponsive rural catchment of subdued relief, underlain by sandstone marls and clays of Carboniferous through to Liassic age, blanketed extensively by Boulder Clay and morainic sand and gravel.		1987	705	102	250	100	2.05	12.0	17/10	0.58	13/07	4.1	1.50	0.69
		1988	700	101	248	100	2.03	15.0	24/01	0.56	17/08	5.1	1.15	0.62
		1989	629	91	168	67	1.38	12.1	22/12	0.27	27/07	2.8	0.75	0.32
		1990	644	93	188	76	1.54	19.4	28/01	0.21	07/08	3.7	0.65	0.29
054018	**Ree Brook at Hookagate** C.A: 178.0 km²	**62..85**	**749**		**307**		**1.73**	**38.5**	**09/12 1965**	**0.08**	**23/08 1976**	**4.2**	**0.98**	**0.24**
M.A: NRA-ST	Level: 65m Local Number: 18													
F.A.R: EN	B.F.I: .51 Sensitivity: 11.3	1986	744	99										
Comment: Model tested trapezoidal flume and flanking broad-crested weirs within vertical sidewalls 7.3m apart. Lb inundated at high flows but velocities low and rating extrapolation reasonable. All flows contained by d/s road bridge. Substantially natural catchment. Minor effects from sewage at lowest flows. # Broad, flat main channel flanked by steeply graded streams. Complex geology; sandstones and shales (Pre-Cambrian to Silurian) entirely covered by Boulder Clay and fluvio-glacial sand and gravel. Moorland and low grade agriculture.		1987	737	98	307	100	1.73	30.3	04/04	0.27	14/09	3.7	1.12	0.31
		1988	758	101	313	102	1.76	26.5	23/01	0.32	17/08	4.3	0.82	0.38
		1989	716	96	243	79	1.37	22.8	21/12	0.18	24/09	3.2	0.52	0.19
		1990	718	96	277	90	1.56	26.2	27/01	0.17	09/09	4.3	0.49	0.18
054019	**Avon at Stareton** C.A: 347.0 km²	**62-85**	**669**		**227**		**2.50**	**71.4**	**11/07 1968**	**0.15**	**17/08 1976**	**5.6**	**1.31**	**0.48**
M.A: NRA-ST	Level: 55m Local Number: 19													
F.A.R: SEI	B.F.I: .49 Sensitivity: 14.5	1986	724	108	269	119	2.95	31.4	11/01	0.38	18/07	6.7	1.84	0.51
Comment: Crump profile weir, 7.3m wide with crest tapping. Current metering from footbridge d/s. Highest floods overtop rb and follow old river channel. Early record to 1971 had Coventry sewage outfall diverted through station. Augmentation by groundwater pumping and surface transfers. Moderate influence from abstractions and returns. # Predominantly agricultural, low relief catchment, contains Rugby. Wide covering of superficial deposits on higher ground. Geology in lower reaches is argillaceous rock of Lias and Keuper Marl.		1987	723	108	311	137	3.42	42.9	20/06	0.58	08/08	7.1	2.19	0.75
		1988	657	98	242	107	2.66	55.8	24/01	0.53	24/06	6.6	1.22	0.60
		1989	675	101	211	93	2.32	23.9	07/04	0.44	08/08	5.1	1.12	0.48
		1990	535	80	156	69	1.71	31.8	08/02	0.27	04/08	3.5	0.79	0.32
054020	**Perry at Yeaton** C.A: 180.8 km²	**63-85**	**766**		**290**		**1.66**	**12.6**	**29/12 1978**	**0.16**	**25/08 1976**	**3.4**	**1.18**	**0.45**
M.A: NRA-ST	Level: 61m Local Number: 20													
F.A.R: GEI	B.F.I: .65 Sensitivity: 13.1	1986	744	97	262	90	1.50	**14.2**	**10/01**	0.40	23/07	3.3	1.08	0.46
Comment: Crump profile weir, 6m wide, with crest tapping. Channel very prone to weed growth. All floods have been contained. Substantial groundwater abstraction has indirect effect. Effluent returns in the catchment may have substantial effect at lowest flows. # The river rises on Millstone Grit and traverses the Bunter and Keuper Series although much complicated by glacial sand and gravel; some marshlands with artificial drainage.		1987	738	96	285	98	1.63	10.8	05/04	0.45	05/08	3.2	1.22	0.55
		1988	769	100	303	104	1.73	11.2	24/01	0.54	21/09	4.2	1.04	0.59
		1989	704	92	216	74	1.24	11.5	21/12	0.32	23/08	2.6	0.71	0.36
		1990	688	90	239	82	1.37	**17.7**	**07/02**	0.31	09/09	3.2	0.65	0.36
054022	**Severn at Plynlimon flume** C.A: 8.7 km²	**53..85**	**2425**		**1805**		**0.50**	**32.2**	**15/08 1977**	**0.01**	**07/05 1957**	**1.3**	**0.27**	**0.05**
M.A: IH	Level: 331m Local Number: 103													
F.A.R: N	B.F.I: .32 Sensitivity: 19.0	1986	2742	113	2202	122	0.61	15.1	18/11	0.05	17/10	1.5	0.29	0.07
Comment: Large trapezoidal flume installed in 1968. Operated as an IH experimental basin (15 minute dataset resides at the IH). Full range. Installation of upstream silt trap (Oct. 1971) improved station performance but extreme low flows suspect. Earlier data (1953-8) of poor quality are available from a compound sharp-edged weir (capacity 10 m^3s^{-1}) with flanking broad crests. Natural flow regime. # Steep, very wet (>2000mm), responsive, afforested catchment on Palaeozoic slates and shales.		1987	2354	97	1907	106	0.53	13.7	18/10	0.08	10/05	1.2	0.28	0.11
		1988	2591	107	2144	119	0.59	15.4	25/09	0.07	23/06	1.2	0.36	0.09
		1989	2411	99	1948	108	0.54	18.9	28/10	0.07	24/07	1.3	0.26	0.08
		1990	2839	117	2080	115	0.57	11.7	20/12	0.08	27/07	1.4	0.27	0.09
054024	**Worfe at Burcote** C.A: 258.0 km²	**69-85**	**693**		**149**		**1.22**	**16.1**	**25/05 1969**	**0.05**	**14/08 1976**	**2.2**	**0.95**	**0.40**
M.A: NRA-ST	Level: 33m Local Number: 24													
F.A.R: PGEI	B.F.I: .71 Sensitivity: 13.5	1986	714	103	147	99	1.20	8.0	11/01	0.32	19/07	2.1	1.03	0.40
Comment: Crump profile weir, 5.5m wide, with crest tapping. Flows generally contained. Substantial impact from groundwater abstractions for PWS, industry and irrigation; surface abstraction for PWS and spray irrigation. # Predominantly agricultural, low relief catchment draining Triassic sandstones; intermittent Boulder Clay and glacial sand and gravel cover.		1987	688	99	148	99	1.21	5.6	05/04	0.42	10/07	2.0	1.01	0.54
		1988	695	100	168	113	1.37	10.8	24/01	0.50	25/06	2.7	0.99	0.63
		1989	650	94	108	72	0.88	6.7	22/12	0.15	27/07	1.5	0.62	0.22
		1990	604	87	117	79	0.96	9.6	28/01	0.14	05/08	1.9	0.61	0.21
054025	**Dulas at Rhos-y-pentref** C.A: 52.7 km²	**69..85**	**1265**		**816**		**1.36**	**24.8**	**02/01 1984**	**0.01**	**27/08 1976**	**3.6**	**0.73**	**0.05**
M.A: NRA-ST	Level: 179m Local Number: 25													
F.A.R: N	B.F.I: .37 Sensitivity: 22.5	1986	1391	110	992	122	1.66	**33.7**	**18/11**	0.04	27/07	4.3	0.83	0.08
Comment: The gauge is a trapezoidal flume, 15.8m wide, which should contain most flows. The bed is composed of shoals of shale fragments; a high level intake pipe should obviate problems of the lower pipe blocking in high flows leading to unreliable recording. Natural catchment. # A high relief catchment on Silurian shales and slates with Boulder Clay on the valley sides. Pasture, forest and moorland.		1987	1231	97	814	100	1.36	**38.5**	**18/10**	0.11	13/07	3.2	0.71	0.14
		1988	1406	111	958	117	1.60	19.8	01/01	0.12	29/06	3.8	0.87	0.21
		1989	1256	99	809	99	1.35	23.9	23/03	0.10	06/08	4.0	0.43	
		1990	1335	106	820	100	1.37	23.8	29/01	0.02	15/09	4.0	0.50	0.03

			Period	Rainfall (mm)	% of pre-1986	Runoff (mm)	% of pre-1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
054027	**Frome at Ebley Mill**	C.A: 198.0 km²	**69..85**	*855*		**384**		**2.41**	**19.4**	**30/05 1979**	**0.26**	**25/08 1976**	**4.7**	**1.92**	**0.71**
M.A: NRA-ST	Level: 31m	Local Number: 27													
F.A.R: PEI	B.F.I: .86	Sensitivity: 8.3	1986	932	109										
Comment: Velocity-area station on a curved reach. Control is a compound broad-crested weir. River inundates widely at gauging section. Substantial headwater abstractions for PWS; further industrial abstractions and significant sewage outfall. # Steep headwaters drain the Cotswolds Scarp of Oolitic Limestone and Lias sandstone. Valley bottoms are considerably urbanised and underlain by Lias clays. The station is in Stroud.			1987	815	95	413	108	2.59	10.8	19/11	0.93	01/10	4.4	2.52	1.07
			1988	776	91	387	101	2.43					4.8	1.70	1.07
			1989	833	97	330	86	2.07	8.1	24/12	0.77	16/10	4.2	1.67	0.83
			1990	693	81	333	87	2.09	12.9	03/02	0.56	09/10	4.8	1.08	0.61
054028	**Vyrnwy at Llanymynech**	C.A: 778.0 km²	**70-85**	**1305**		**817**		**20.16**	**406.7**	**06/08 1973**	**0.54**	**27/08 1976**	**46.2**	**12.08**	**2.02**
M.A: NRA-ST	Level: 62m	Local Number: 128													
F.A.R: SRPI	B.F.I: .45	Sensitivity: 8.6	1986			1110	136	27.37	364.4	10/01	1.78	22/07	68.4	13.18	2.42
Comment: Velocity-area station, 35m wide, in a substantially straight reach with natural shoal control. Rating relatively stable. Out-of-bank flows gauged from a cableway extension over the floodplain. Three major PWS in the catchment have a substantial effect on the flow regime, particularly the supply exported to Liverpool from Lake Vyrnwy. # Steep headwater streams and broad-bottomed valleys; storage in valley sands and gravels. Moorland, forestry and grazing.			1987			900	110	22.19	275.2	18/10	2.14	13/07	52.9	13.33	2.62
			1988			1127	138	27.72	326.4	02/01	2.62	25/06	59.8	15.41	4.14
			1989			753	92	18.58	292.2	24/03	1.60	08/08	49.8	6.15	1.81
			1990	1415	108	882	108	21.77	346.7	07/02	1.73	11/09	59.6	8.18	2.23
054029	**Teme at Knightsford Bridge**	C.A: 1480.0 km²	**70-85**	**833**		**376**		**17.64**	**284.6**	**28/12 1979**	**0.72**	**27/08 1976**	**40.4**	**10.98**	**2.16**
M.A: NRA-ST	Level: 21m	Local Number: 29													
F.A.R: PEN	B.F.I: .57	Sensitivity: 20.2	1986	857	103	421	112	19.77	198.6	10/01	2.31	08/10	49.9	11.87	2.60
Comment: Velocity-area station. Gravel control affected by weed growth at low flows. PWS abstractions and sewage returns insignificant. Natural catchment. # Left bank: high relief hills and broad valleys. Right bank: steep and narrow. Geology mainly Palaeozoic sediments with Pre-Cambrian crystalline rocks of the Longmynd. Relatively drift free; some valley gravel and Boulder Clay in the lower reaches. Moorland,forestry, grazing.			1987	783	94	373	99	17.51	230.8	05/04	1.97	16/09	38.5	11.40	2.44
			1988	820	98	375	100	17.53	193.2	24/01	3.84	25/06	42.3	9.23	4.71
			1989	765	92	292	78	13.71	173.9	25/12	1.05	08/09	33.8	5.83	1.20
			1990	746	90	300	80	14.06	244.2	28/01	1.15	21/09	35.7	4.53	1.30
054032	**Severn at Saxons Lode**	C.A: 6850.0 km²	**70-85**	**859**		**401**		**87.12**	**505.4**	**11/02 1977**	**7.20**	**27/08 1976**	**217.7**	**59.61**	**16.23**
M.A: NRA-ST	Level: 8m	Local Number: 32													
F.A.R: SRPGEI	B.F.I: .56	Sensitivity: 10.2	1986	912	106	450	112	97.66	381.4	12/01	15.75	20/07	252.0	64.00	19.26
Comment: Rated section between the abutments of a demolished railway bridge. Multipath US gauge from 1987. High flows mostly contained by embankments to the bridge. Affected by high tides and by tidal gates on the Avon at Tewkesbury. Substantial modifications to flow owing to PWS exports, and effluent returns (chiefly the R. Stour and Worcester). # Very large diverse catchment, broad flood peaks. Land use mainly agriculture and forestry, with subordinate industrial development in the east.			1987	840	98	390	97	84.68	388.8	03/01	16.60	21/08	187.9	58.70	19.15
			1988	886	103	417	104	90.33	410.9	24/01	12.55	02/07	232.6	55.06	24.48
			1989	816	95	319	80	69.26	413.2	22/12	11.35	18/10	188.6	33.54	12.53
			1990	816	95	346	86	75.08	503.5	02/02	11.90	05/08	214.0	30.66	13.27
054034	**Dowles Brook at Dowles**	C.A: 40.8 km²	**71..85**	**736**		**305**		**0.39**	**19.4**	**28/09 - 1976**	**0.01**	**26/08 1976**	**1.0**	**0.17**	**0.04**
M.A: NRA-ST	Level: 24m	Local Number: 34													
F.A.R: N	B.F.I: .42	Sensitivity: 33.3	1986	773	105										
Comment: Flat V Crump profile weir 6.0m wide, with a cableway to allow high flow gauging. Flood banks on a 36m wide floodplain should contain most flows. No significant abstractions or returns. # The catchment is substantially Drift free, situated on sandstone and marls of Upper Carboniferous age. The river bisects the Wyre Forest; all but the headwaters are afforested.			1987	743	101											
			1988	715	97	291	95	0.38	15.4	02/01	0.05	23/09	0.9	0.16	0.06
			1989	690	94	239	78	0.31	8.0	24/12	0.02	23/08	0.6	0.09	0.03
			1990	615	84	221	72	0.29	16.6	27/01	0.01	04/08	0.7	0.07	0.02
054038	**Tanat at Llanyblodwel**	C.A: 229.0 km²	**73..85**	**1193**		**878**		**6.38**	**118.2**	**06/08 1973**	**0.10**	**07/09 1976**	**14.9**	**4.22**	**0.55**
M.A: NRA-ST	Level: 77m	Local Number: 38													
F.A.R: EIN	B.F.I: .47	Sensitivity: 10.7	1986	1400	117	1015	116	7.37	94.0	10/01	0.48	27/07	18.4	4.47	0.76
Comment: Velocity-area station with a natural rock step as control approx. 150m d/s of cableway. Gravel bed. Rb floodplain approx. 50m wide, partially covered by the cableway. Sewage effluent has insignificant effect upon the flow regime. # High relief headwaters and broad bottomed valleys of moderate slope with Boulder Clay and fluvial gravel. Solid geology Ordovician slates and shales. Moorland, forestry, pasture.			1987	1172	98	836	95	6.07	82.2	18/10	0.77	09/07	14.6	4.12	0.96
			1988	1367	115	983	112	7.12	66.9	02/01	1.07	24/06	15.4	4.45	1.56
			1989	1176	99	762	87	5.53	60.0	14/03	0.29	08/08	15.0	2.12	0.35
			1990	1269	106	828	94	6.01	76.5	07/02	0.25	14/08	16.5	2.16	0.35
054040	**Meese at Tibberton**	C.A: 167.8 km²	**73-85**	**689**		**231**		**1.23**	**8.2**	**31/12 1981**	**0.18**	**27/08 1976**	**2.1**	**1.04**	**0.49**
M.A: NRA-ST	Level: 56m	Local Number: 40													
F.A.R: GEI	B.F.I: .80	Sensitivity: 13.7	1986	776	113	243	105	1.29	5.4	10/01	0.44	18/07	2.4	1.06	0.53
Comment: Crump profile weir, 6m wide, for the Shropshire Groundwater Scheme, indirectly affected by large PWS groundwater abstractions; otherwise spray irrigation and canal impoundment have moderate effect. # Agricultural, very low relief catchment with high baseflow component. Drains outcrop Bunter sandstone; intermittent Boulder Clay and glacial sand and gravel.			1987	734	107	263	114	1.40	4.9	01/01	0.76	13/07	2.2	1.25	0.82
			1988	741	108	270	117	1.43	6.3	24/01	0.67	23/06	2.7	1.10	0.81
			1989	658	96	194	84	1.03	5.3	21/12	0.34	24/08	1.9	0.76	0.41
			1990	631	92	188	81	1.00	7.2	28/01	0.31	04/08	1.9	0.70	0.39
054041	**Tern at Eaton On Tern**	C.A: 192.0 km²	**72-85**	**721**		**290**		**1.77**	**19.6**	**12/02 1977**	**0.34**	**02/07 1976**	**3.0**	**1.43**	**0.77**
M.A: NRA-ST	Level: 54m	Local Number: 41													
F.A.R: GEI	B.F.I: .71	Sensitivity: 9.3	1986	739	102	275	95	1.67	10.7	17/04	0.68	19/09	3.0	1.36	0.77
Comment: Two-bay Crump profile weir with identical crest heights, 6m total width, with crest tapping set into old mill sluices. Upstream cableway. Significant groundwater abstractions. Part of Shropshire Groundwater Scheme network. Agricultural and PWS abstractions balance effluent returns. # Agricultural, low relief catchment. Outcrop Bunter sandstone with intermittent Boulder Clay and glacial sand and gravel below the above gauges.			1987	755	105	333	115	2.03	16.5	23/08	0.91	13/07	3.1	1.61	1.03
			1988	724	100	313	108	1.90	10.9	19/03	0.79	24/06	3.4	1.43	1.00
			1989	652	90	224	77	1.37	8.8	21/12	0.51	15/07	2.2	1.05	0.68
			1990	673	93	257	89	1.56	**20.0**	**28/01**	0.55	05/08	2.8	1.07	0.62
054044	**Tern at Ternhill**	C.A: 92.6 km²	**72-85**	**742**		**296**		**0.87**	**21.8**	**11/02 1977**	**0.26**	**26/08 1976**	**1.4**	**0.72**	**0.44**
M.A: NRA-ST	Level: 62m	Local Number: 44													
F.A.R: GEI	B.F.I: .76	Sensitivity: 9.1	1986	794	107	293	99	0.86	5.6	17/04	0.44	22/07	1.4	0.71	0.47
Comment: Rectangular notch 4m wide by 0.43m deep with side contractions. Cableway for high flows. Not yet out of bank. Significant ground and surface water abstractions in the catchment with effluent from Market Drayton. Shares a recorder hut with the adjacent Bailey Brook gauge. # Agricultural, low relief catchment, high baseflow from Bunter sandstone and glacial sand and gravel. Boulder Clay typifies the right hand bank geology.			1987	773	104	324	109	0.95	6.9	24/08	0.54	13/07	1.4	0.82	0.59
			1988	750	101	320	108	0.94	5.5	24/01	0.52	17/08	1.6	0.75	0.56
			1989	671	90	238	80	0.70	3.8	21/12	0.37	26/07	1.1	0.58	0.40
			1990	706	95	269	91	0.79	9.7	28/01	0.36	11/08	1.3	0.62	0.40
054049	**Leam at Princes Drive Weir**	C.A: 362.0 km²	**79-85**			**185**		**2.12**	**53.5**	**30/12 1981**	**0.04**	**11/07 1984**	**4.5**	**0.96**	**0.26**
M.A: NRA-ST	Level: 46m	Local Number: 49													
F.A.R: SRPGE	B.F.I: .37	Sensitivity: 16.1	1986	722		221	119	2.53	35.8	11/01	0.15	14/10	6.8	1.28	0.28
Comment: Up to 1979 rectangular thin-plate weir 4.7m wide, set in a curved, broad-crested weir (32.9m). Record poor, high flows unreliable. Since 1979 compound rectangular thin-plate weir has led to improved data. Abstractions for PWS and pumped storage reservoir (Draycote); imports of water and groundwater pumping; substantial modification of flow regime. # Agricultural catchment of low relief, substantially Drift free. Lower fifth of catchment drains Keuper Marl, the rest argillaceous rocks of the Liassic series.			1987	697		335	181	3.84	28.0	20/11	0.20	04/09	9.0	2.58	0.39
			1988	653											
			1989	651		183	99	2.11	23.0	19/12	0.13	16/02	6.4	0.54	0.23
			1990	565		175	95	2.01	26.4	08/02	0.15	14/06	7.0	0.43	0.24

	Period	Rainfall (mm)	% of pre-1986	Runoff (mm)	% of pre-1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
054050 **Leam at Eathorpe** C.A: 300.0 km²													
M.A: NRA-ST Level: 57m Local Number:													
F.A.R: B.F.I: Sensitivity:	1986	721											
Comment: Side-contracted central low flow flume, flanked by broad crested weirs	1987	693		230		2.19	32.7	20/11	0.32	21/08	4.4	1.61	0.39
in a straight reach. Exceeds bankfull but not bypassed. Rated by model test and	1988	651		171		1.62	45.7	24/01	0.26	25/04	4.1	0.58	0.33
current meter. Flow regime dominated by the operation of Draycote Res. -	1989	647		132		1.25	22.1	19/12	0.21	13/03	3.0	0.45	0.30
abstraction and support. # Low relief catchment. Keuper Marl in the lower	1990	567		119		1.13	25.0	08/02	0.11	03/11	3.1	0.37	0.25
catchment other wise Lower Lias clays and silts. The north has abundant glacial													
sands and gravels the Keuper is overlain by river terraces. Wholly rural apart from													
southern Rugby. Mixed farming.													
054057 **Severn at Haw Bridge** C.A: 9895.0 km²	**71-85**			**333**		**104.40**	**640.9**	**01/01**	**8.70**	**23/08**	**242.2**	**71.93**	**20.04**
M.A: NRA-ST Level: 6m Local Number: 57								**1982**		**1976**			
F.A.R: SRPGEI B.F.I: .57 Sensitivity: 4.4	1986	853		363	109	113.86	447.1	12/01	19.49	19/07	274.7	75.35	23.17
Comment: Velocity-area station at a road bridge (B4213). Difficult site, but	1987	792		355	107	111.32	480.0	08/04	23.55	21/08	240.7	76.79	27.41
includes Avon flow. Tidally affected; substantial bed movement. Both restrict	1988	812		365	110	114.21	573.6	27/01	23.29	25/06	289.5	70.87	33.46
accuracy. Substantial modification to flow owing to PWS exports and effluent	1989	769		295	89	92.42	607.1	21/12	14.91	28/07	230.1	46.21	18.30
returns (chiefly the Stour, Worcester and Avon). # Very large, diverse catchment,	1990	733		339	102	106.37	**812.5**	**03/02**	15.63	20/07	270.3	45.29	20.40
lowest on the Severn.													
054060 **Potford Brook at Potford** C.A: 25.0 km²	**72..85**			**154**		**0.12**	**2.0d**	**26/04**	**0.02**	**12/07**	**0.2**	**0.09**	**0.05**
M.A: NRA-ST Level: m Local Number: 60								**1981**		**1976**			
F.A.R: G B.F.I: .76 Sensitivity: 30.0	1986	668											
Comment: Prefabricated Flat V Crump profile weir, initially installed for the	1987	729											
Shropshire Groundwater investigation. Repositioned 1987 to avoid backing up.	1988	683		237	154	0.19	**3.4**	**04/02**	0.09	09/08	0.3	0.13	0.09
Low flows may be significantly affected when the Severn augmentation is in	1989	602		156	101	0.12	2.8	14/12	0.04	04/10	0.2	0.09	0.04
operation. Unresponsive catchment. # Flat catchent on mixed geology;, Bunter	1990	600		177	115	0.14	**7.4**	**27/01**	0.04	03/08	0.2	0.08	0.05
sandstone, boulder clay and glacial sands and gravel.													
054081 **Clywedog at Bryntail** C.A: 49.0 km²	**77-85**	**1947**		**1497**		**2.33**	**42.4**	**05/03**	**0.01**	**25/05**	**5.4**	**1.53**	**0.27**
M.A: NRA-ST Level: 212m Local Number: 109								**1985**		**1978**			
F.A.R: SR B.F.I: .52 Sensitivity:	1986			1581	106	2.46	29.3	03/02	0.24	21/03	5.8	1.56	0.33
Comment: Flat V weir, 16m wide; 1:20 cross-slope, immediately below the	1987			1498	100	2.33	14.3	23/10	0.34	30/05	3.0	1.58	0.35
reservoir. Installed for the purpose of measuring the compensation and regulation	1988			1811	121	2.81	23.4	30/09	0.28	10/05	7.1	1.63	0.35
releases from Clywedog reservoir. Drawn down over winter months to flatten flood	1989			1359	91	2.11	13.4	17/03	0.30	15/10	4.9	1.54	0.34
peaks. # Steep, wet catchment draining Ordovician and Silurian shales and slates.	1990			1404	94	2.18	20.8	11/02	0.21	07/11	5.7	1.45	0.28
Substantially Drift free. Most tributaries afforested on valley sides.													
054089 **Avon at Bredon** C.A: 2674.0 km²													
M.A: NRA-ST Level: 9m Local Number:													
F.A.R: SPGEI B.F.I: Sensitivity:	1986												
Comment: Ultrasonic single path instrument installed in 1979, unsuccessful	1987												
experiment. Replaced 1988 by a multipath cross path US in a broad reach. Data	1988												
produced valid to bankfull; river inundates hams on lhb extensively in flood. For v.	1989			197		16.68	138.9	15/12	4.46	28/07	35.3	9.45	5.12
high flows use 54002. Extensive modification to flows by abstractions and returns.	1990	548		157		13.35	95.0	07/02	2.50	06/08	30.9	6.41	3.10
# Large catchment of low relief, draining argillaceous rocks almost exclusively.													
Contains many large towns but chief land use is agriculture.													
054091 **Severn at Hafren Flume** C.A: 3.6 km²	**76..85**			**1927**		**0.22**	**22.4**	**15/08**	**0.01**	**19/10**	**0.5**	**0.13**	**0.02**
M.A: IH Level: m Local Number: 113								**1977**		**1983**			
F.A.R: B.F.I: .39 Sensitivity:	1986	2767	368	2208	115	0.25	6.3	18/11	0.02	17/10	0.6	0.13	0.03
Comment: Steep stream flume structure designed by the Hydraulics Research	1987	2321	309	1874	97	0.21	6.4	18/10	0.04	10/05	0.5	0.12	0.05
Station. Natural catchment nested within 54022. Researchers should note the	1988	2599	346	2091	109	0.24	6.4	25/09	0.03	28/06	0.5	0.15	0.03
primary 15 minute dataset resides at the Institute of Hydrology.	1989	2500	332	1844	96	0.21	7.0	28/10	0.02	04/08	0.5	0.09	0.02
	1990	2859	380	2060	107	0.24	4.6	20/12	0.03	07/08	0.6	0.12	0.03
054092 **Hore at Hore Flume** C.A: 3.2 km²	**73-85**			**1833**		**0.19**	**7.7**	**06/10**	**0.00**	**03/10**	**0.4**	**0.09**	**0.01**
M.A: IH Level: m Local Number: 115								**1980**		**1974**			
F.A.R: B.F.I: .32 Sensitivity:	1986	2782	315	2298	125	0.23	6.8	18/11	0.02	03/10	0.5	0.11	0.03
Comment: Steep stream flume structure designed by the Hydraulics Research	1987	2330	264	2034	111	0.21	6.4	18/10	0.03	10/05	0.5	0.11	0.04
Station. Natural catchment nested within 55008. Researchers should note the	1988	2628	298	2159	118	0.22	7.5	25/09	0.02	21/06	0.5	0.13	0.03
primary 15 minute dataset resides at the Institute of Hydrology.	1989	2545	288	1930	105	0.20	**8.5**	**28/10**	0.02	25/06	0.5	0.09	0.02
	1990	2907	329	2076	113	0.21	6.1	20/12	0.02	04/08	0.5	0.10	0.02
054094 **Strine at Crudgington** C.A: 134.0 km²	82..85						6.3	21/12	0.22	03/11			
M.A: NRA-ST Level: m Local Number: 170								1985		1985			
F.A.R: GEI B.F.I: .63 Sensitivity:	1986												
Comment: Electromagnetic gauge in a trapezoidal channel. Very Low velocities	1987												
experienced. Substantial modification to the natural flow regime owing to WRWs	1988	693		191		0.81	6.4	23/01	0.30	25/11	1.6	0.58	0.34
discharges. # Very flat catchment draining the Weald Moors. Geology: Bunter ss	1989	618		137		0.58	4.9	21/12	0.15	19/08	1.0	0.37	0.19
overlain by a variety of superficial deposits. Newport is in the headwaters and the	1990	577		162		0.69	19.7	30/12	0.10	01/08	1.4	0.33	0.15
catchment also includes part of Telford.													
054095 **Severn at Buildwas** C.A: 3717.0 km²	84..85						362.3	25/11	9.96	12/08			
M.A: NRA-ST Level: 35m Local Number: 134								1984		1984			
F.A.R: SRPGEI B.F.I: Sensitivity:	1986												
Comment: Multiple ultrasonic gauging station (cross configuration). Severn is fully	1987												
contained by Buildwas Bridge. Substantial modification to lowest flows due to	1988	1008		576		67.66	378.5	04/01	11.70	25/06	161.2	40.07	16.35
operation of Clywedog and Vyrnwy Reservoirs and Shropshire GW scheme;	1989	903		441		51.93	335.7	23/12	8.97	14/10	141.4	22.76	10.23
otherwise artificial effects are modest. # Diverse catchment: moorland and forestry	1990	945		478		56.37	407.4	31/01	9.77	15/06	150.0	23.46	10.69
in wet headwaters (Palaeozoic formations), mixed farming and some towns in the													
drier north and east - where Drift cover can be substantial.													

Summary of Archived Data – 1

Gauged daily flows, monthly peaks and monthly rainfall

Stn. number	Gauged daily flows, monthly peaks and rainfall			
028001	30s	---cccbAAA	40s	BCCCCCCCCB
	50s	AAABBAAAAA	60s	AAAAAAAAAA
	70s	AAAAAAEAAA	80s	AAAAAAAAAA
	90s	AAe		
028002	30s	-------eAA	40s	AAAAAAAAAA
	50s	AABAAAAAAA	60s	AAAAAAADEE
	70s	EAAAAEAAAA	80s	AAAAE†††††
	90s	††		
028003	50s	-----eAAAA	60s	AAAAAAAAAA
	70s	AAEAAAAAAA	80s	AAE†††---†
	90s	††		
028005	50s	-----fccbA	60s	AAAAAAAAAA
	70s	AAAAAAAAAA	80s	AAAAE†
028006	50s	------eaA	60s	AAAAE††††
	70s	††††††††††	80s	††††††
028007	50s	-------eAA	60s	AAAAAAE†††
	70s	††††††††††	80s	††††††----
	90s	-ee		
028008	50s	---eAAAAAA	60s	AAAAAAAAAA
	70s	AAAAAAAAAA	80s	AAAAAAAAAA
	90s	AAe		
028009	50s	--------eA	60s	AAAAAAAAAB
	70s	AAAAAAAAAA	80s	AAAAAAAAAA
	90s	AAe		
028010	30s	-----fFFCC	40s	CCCFCCCCCC
	50s	CCCCFCCCCC	60s	CCCCCCCCCC
	70s	CCCCBAAAAA	80s	AAAAAAA†††
	90s	††		
028011	50s	--------eE	60s	EEBAAAAAAA
	70s	EEAAAAAAAA	80s	AAAAAAAAAA
	90s	AAe		
028012	50s	--------e	60s	AAAAADAAAE
	70s	AAAAAAAAAA	80s	AAAAAAAAAA
	90s	AAe		
028014	60s	bBABBC†EAA	70s	AAAAAAAD††
	80s	††††††††††	90s	††
028015	60s	-----eeE†A	70s	EEE†††††††
	80s	--eAEEAAAA	90s	AAe
028016	60s	-----eAAAA	70s	AAAAAAAAE†
	80s	††††††††††	90s	††
028017	60s	------eaaa	70s	aaAEAAEAE†
	80s	††††††		
028018	60s	-eAAAAAAAA	70s	AAAEAAAAAA
	80s	AAAAAAAAAA	90s	AAe
028019	60s	------eAAD	70s	AAAEAAAAAA
	80s	AAAAAAAAAA	90s	AAe
028020	50s	----fCFCFC	60s	BAAAAAAEee
	70s	aaAAAAAAAA	80s	AAE†††---†
	90s	††		
028021	60s	----†EAAEA	70s	EEEEAAAA††
	80s	---†††††††	90s	††
028022	60s	--------ea	70s	aaAAAAAAAA
	80s	AAAAE††AAA	90s	AAe
028023	60s	-----eaaaa	70s	aaAAAAAE††
	80s	††·†††††††	90s	††
028024	60s	-------eea	70s	eaAAAAAAAA
	80s	AEEAEEEAAA	90s	AAe
028025	60s	------eaae	70s	aaAAAAAAAA
	80s	AAAAE†††††	90s	††
028026	60s	------eeaa	70s	aaAAEAAAAA
	80s	AAAAE††AAA	90s	AAe
028027	60s	-----EAEAA	70s	AAAAAAE†††
	80s	†EAae·††††	90s	E†
028028	70s	--eaae·††E	80s	ae·†††
028029	60s	------eeee	70s	eeEAAAAEAA
	80s	AAAAE†††††	90s	††
028030	60s	--------eEE	70s	AEEAAAAAAA
	80s	AAAAE†††††	90s	††
028031	60s	--------eE	70s	AaAAAAAAAA
	80s	AAAAAAAAAA	90s	AAe
028032	60s	-----EAAAA	70s	AAAAAAEAAA
	80s	AEAAE†--††	90s	EAe
028033	60s	-----eaeae	70s	aaAAAAAAAA
	80s	AAE†††††††	90s	††
028035	60s	-------ee·	70s	---††††††
	80s	†EAae----†	90s	E†
028036	60s	--------e	70s	aaAEAE††††
	80s	---†††--††	90s	††
028037	70s	--††·†††EA	80s	aaaAE†††††
	90s	††		
028038	60s	--------e	70s	aaAEAAEAAA
	80s	AAE†††††††	90s	††
028039	60s	-------eAE	70s	AaEAEAAAAA
	80s	AAAAAAAAAA	90s	AAe
028040	60s	--------eE	70s	AAAAAAAAAA
	80s	AAAAAAAAAA	90s	AAe
028041	60s	--------ea	70s	aeAAAAAAAA
	80s	AAE†††††††	90s	††
028043	60s	----††††EA	70s	ADAAAAAAAA
	80s	AAAAEAAAAA	90s	AAe
028044	60s	---------e	70s	eaAAAAAAAA
	80s	AAAAE†--††	90s	†Ee
028045	60s	-----eaaaa	70s	aaAAADAAAA
	80s	AAAAE†-††	90s	††
028046	60s	--------e	70s	AAAAAAAAAA
	80s	AAAAAAAAAA	90s	AAe
028047	70s	eaabAAAAAA	80s	AAEEE†--††
	90s	†Ee		
028048	70s	-eaAAAAAAA	80s	AAAAAAAAAA
	90s	AAe		

Stn. number	Gauged daily flows, monthly peaks and rainfall			
028049	70s	eaaaaaaAAA	80s	AAAAE††††
	90s	EAe		
028050	70s	-eeaAAAEAA	80s	AAAAE†††FC
	90s	BAe		
028052	70s	-eDEAAAAAA	80s	AAAAE††AAA
	90s	AAe		
028053	70s	---†††EAAA	80s	AAAE††--†
	90s	EAe		
028054	70s	-eAAAAAAAA	80s	AAAAE††††
	90s	††		
028055	70s	-eAAAEAAAA	80s	AAE†††††††
	90s	†te		
028056	70s	---eAAAAEA	80s	AAAAE††AAA
	90s	AAe		
028058	70s	-††EAAAAA	80s	AAAAE††††
	90s	††		
028059	60s	------eaaa	70s	aaAAAAAAAA
	80s	AAAEE†--††	90s	††
028060	70s	--eaAAAAAA	80s	AAAEE†††EA
	90s	AAe		
028061	70s	--††·AAAAA	80s	AAAAE††AAA
	90s	AAe		
028066	70s	---eAAAAAA	80s	AAAAAEAAAA
	90s	AAe		
028067	70s	---eAAAAAA	80s	AAAAAAAAAA
	90s	AAe		
028070	60s	-----fffff	70s	eeeeeeaaaa
	80s	AAE†††††††	90s	††
028072	70s	-----EAAAA	80s	AAAEE††††
	90s	††		
028073	70s	------eeea	80s	aaaee
028074	70s	--------ea	80s	aaaae-----
	90s	-ee		
028075	70s	---------e	80s	aae---††††
	90s	††		
028076	80s	eaaae--aaa	90s	aae
028079	80s	-eaaaaAAAA	90s	AAe
028080	50s	-------eAE	60s	EAAEAAAAAA
	70s	AAAAAAAAAA	80s	AAAAAAAAAA
	90s	AAe		
028081	80s	--eaebEABA	90s	AAe
028082	70s	-eaAAAAAAA	80s	AAAAEAAAAA
	90s	AAe		
028083	80s	--eaaeEE†E	90s	AAe
028085	30s	-----fFFCC	40s	CCCFCCCCCC
	50s	CCCCFCCCCC	60s	CCCCCCCCCC
	70s	CCCCBAAAAA	80s	AAAADDAAAA
	90s	AAe		
028086	70s	-eAAAAAAAA	80s	AAAAEEAAAA
	90s	AAe		
028091	80s	----eeAAAA	90s	AAe
028093	80s	------EAAE	90s	AEe
028102	80s	-------EEE	90s	AAe
054001	20s	·FCCCCCCCC	30s	CCCCCCCCCC
	40s	CCCCCCCCCC	50s	CCCCCCCCCC
	60s	CCCCCCCCCC	70s	CCAAAABAAA
	80s	AAAAAAAAAA	90s	AAe
054002	30s	------fbAA	40s	AAAAAAAABC
	50s	CCCCBAAAAA	60s	AAAAAAAAAA
	70s	BCBABABAAA	80s	AAAAAAAAAA
	90s	AAe		
054003	20s	ccccccccfcc	30s	ccccccbAA
	40s	EAAAAAAAAA	50s	AAAAAABAAA
	60s	AABBBAAAAA	70s	BCCCCCCAAE
	80s	AAAAAAAAAA	90s	AAe
054004	50s	--fCBAAAAA	60s	AAAAAAAAAA
	70s	BEEEBAAAAE	80s	AAAABAAAAA
	90s	AAe		
054005	50s	---fCBAAAA	60s	AAAAAAAAAA
	70s	ABBAAABAAA	80s	AAAAAAAAAA
	90s	AAe		
054006	50s	---fBAAAAA	60s	AAAAAAAAAA
	70s	BCBAAABBAB	80s	AAAAAAAAAA
	90s	AAe		
054007	50s	-------eAA	60s	AAAAAAAAAA
	70s	BCEEBBBAAA	80s	AAAAE††AAA
	90s	AAe		
054008	50s	-------eAAA	60s	AAAAAAAABB
	70s	CCAAAAAAAA	80s	AAAAAAAAAA
	90s	AAe		
054010	50s	---------e	60s	AAAAAAAAAA
	70s	BCbAAAAADD	80s	AADE††††††
	90s	††		
054011	60s	-eAAAAAAAB	70s	CCBABBABAB
	80s	AAAAE†††††	90s	††
054012	60s	eAAAAAAAAB	70s	ABAAABBAAA
	80s	AAAAAAAAAA	90s	AAe
054013	50s	--------a	60s	AAAAAAAABA
	70s	AABABBBAAE	80s	††††--††††
	90s	††		
054014	60s	--fBAAAAAB	70s	BAAAAAAAAA
	80s	AAAAAAAAAA	90s	AAe
054015	60s	--------E	70s	EEEEEEAAAA
	80s	AaAA††††††	90s	EAe
054016	60s	-eAAAAAAAA	70s	BAAAAAAAAA
	80s	AAAAAAAAAA	90s	AAe
054017	60s	--eAAAAAAA	70s	BBAAAAAAAA
	80s	AAAA††---†	90s	EAe

Stn. number	Gauged daily flows, monthly peaks and rainfall			
054018	60s	--eAAAAAAA	70s	AAAAAAAAEA
	80s	AAAAE††AAA	90s	AAe
054019	60s	--eAAAAAAA	70s	AAAAAAAAAA
	80s	AAAAAAAAAA	90s	AAe
054020	60s	---eAAAAAB	70s	AAAAAAAAAA
	80s	AAAAAAAAAA	90s	AAe
054022	50s	---eAEAAE†	60s	††††††††EB
	70s	AEAAADAAAA	80s	AAAAAAAAAA
	90s	AA		
054023	60s	--------eA	70s	BBAE††BAAA
	80s	AAAA††††††	90s	EAe
054024	60s	†††††††††E	70s	AAAAAAAAAA
	80s	AAAAAAAAAA	90s	AAe
054025	60s	---------E	70s	ABAAAAAAAA
	80s	AADAAAAAAA	90s	AAe
054026	60s	---------F	70s	†EAAEAAAAA
	80s	AAEA††††††	90s	††
054027	60s	---------e	70s	aAAAAAAAAA
	80s	AAAAE†EAEA	90s	AAe
054028	60s	---------†	70s	FBBAAAAAAA
	80s	AAAAAAaaaa	90s	AAe
054029	70s	FBBAAAAAAA	80s	AAAAAAAAAA
	90s	AAe		
054032	70s	FBBAAAAAAA	80s	AAAAAAAAAA
	90s	AAe		
054034	70s	·EAAAAAAAA	80s	AAAA†††EAA
	90s	AAe		
054036	70s	-†EAAAAAAA	80s	AAAAE††††
	90s	EAe		
054038	70s	--†EABAAAA	80s	AAAAEAAAAA
	90s	AAe		
054040	70s	--FABAAAA	80s	AAAAAAAAAA
	90s	AAe		
054041	70s	--FCCCAAAA	80s	AAAAAAAAAA
	90s	AAe		
054042	70s	†EAEAAEE††		
054043	50s	-----fcccc	60s	ccccfccccc
	70s	F†----†††	80s	------††††
	90s	††		
054044	70s	-†EAAAAAAA	80s	AAAAAAAAAA
	90s	AAe		
054045	70s	---†AAAAAE		
054046	70s	-----faaaa	80s	aAAAE†----
	90s	--e		
054047	70s	-----fbae·	80s	·††††
054048	70s	------eAAA	80s	AAAAE††††
	90s	EAe		
054049	70s	--------e	80s	aaaaaaAAEA
	90s	AAe		
054050	80s	------†AAA	90s	AAe
054052	70s	fbDAAAAAAA	80s	AAAA†††E††
	90s	EAe		
054053	70s	-†EABAE---	80s	--†††††††
	90s	††		
054054	70s	--EAAAE---	80s	---†††††††
	90s	††		
054055	70s	--ebeae---	80s	------††††
	90s	††		
054057	70s	·fcccbbaaa	80s	aaaaaaAAAA
	90s	AAe		
054058	70s	--eaabbee·	80s	----------
	90s	††		
054059	70s	--eaabaEE†	80s	------††††
	90s	††		
054060	70s	--ebaaaaae	80s	-fclf·†EAA
	90s	AAe		
054061	70s	--ebaebe--	80s	----------
	90s	††		
054062	70s	--EAEEBEAE	80s	AAAA††††††
	90s	††		
054063	70s	--eababaae	80s	aaae
054065	70s	---EAABEAE	80s	------††††
	90s	††		
054066	70s	---EBBBAAA	80s	AAAA††††††
	90s	††		
054067	70s	----bbbae		
054069	70s	----eaaae		
054070	70s	----eabaaa	80s	aaaa
054080	70s	-------fed	80s	aaae--††††
	90s	††		
054081	70s	-------EBA	80s	AAAAAAaaaa
	90s	aae		
054083	70s	--------ea	80s	aaaa--††††
	90s	††		
054084	70s	--------ea	80s	aaaa--††††
	90s	††		
054085	70s	---------e	80s	aaaa--††††
	90s	††		
054087	70s	---BAEE---	80s	aaee--†--†
	90s	EAe		
054089	80s	--------ea	90s	AAe
054090	70s	---eaaaaaa	80s	aaaaaaAADE
	90s	††		
054091	70s	------AAAA	80s	AAAdadAAAA
	90s	AE		
054092	70s	---eAAAAAA	80s	AAAaaaAAAA
	90s	A†		
054094	80s	---eeeeeeAA	90s	AAe
054095	80s	----eeeeAA	90s	AAe

Summary of Archived Data – 2

Naturalised daily and monthly flows

Stn. number	Naturalised daily, and monthly flows			
028001	30s —–FEE	40s	F——F	
	50s EEEEEEEEEE	60s	EEEEEBAAAA	
	70s AAAAACAA			
028002	40s —FEEEE	50s	EEEEEEEEEE	
	60s EEEEEBAACC	70s	CC–CC	

Stn. number	Naturalised daily, and monthly flows			
054001	20s -CAAAAAAAA	30s	AAAAAAAAAA	
	40s AAAAAAAAAA	50s	AAAAAAAAAA	
	60s AAAAAAAAAA	70s	AAAAAAAAAA	
	80s AAAAA			
054003	20s EEEEEEEFEE	30s	FAAAAAAAAA	
	40s AAAAAAAAAA	50s	AAAAAAAAAA	
	60s AAAAAAAAAA	70s	AAAAAAAAAA	
	80s AAAAD			

Stn. number	Naturalised daily, and monthly flows			
054005	50s ——FEEE	60s	EEEEEEBAAC	
	70s ——AA			
054010	60s ——CC			
054013	60s ——CACA	70s	C—AA	
054014	60s ——CAA	70s	C—AA	
054017	60s ——CC			

Gauged daily flows, monthly peaks and monthly rainfall

KEY:

	Complete rainfall	Incomplete or missing rainfall
Complete daily and complete peaks	A	a
Complete daily and partial peaks	B	b
Complete daily and no peaks	C	c
Partial daily and complete peaks	D	d
Partial daily and partial peaks	E	e
Partial daily and no peaks	F	f
No flow data	†	–

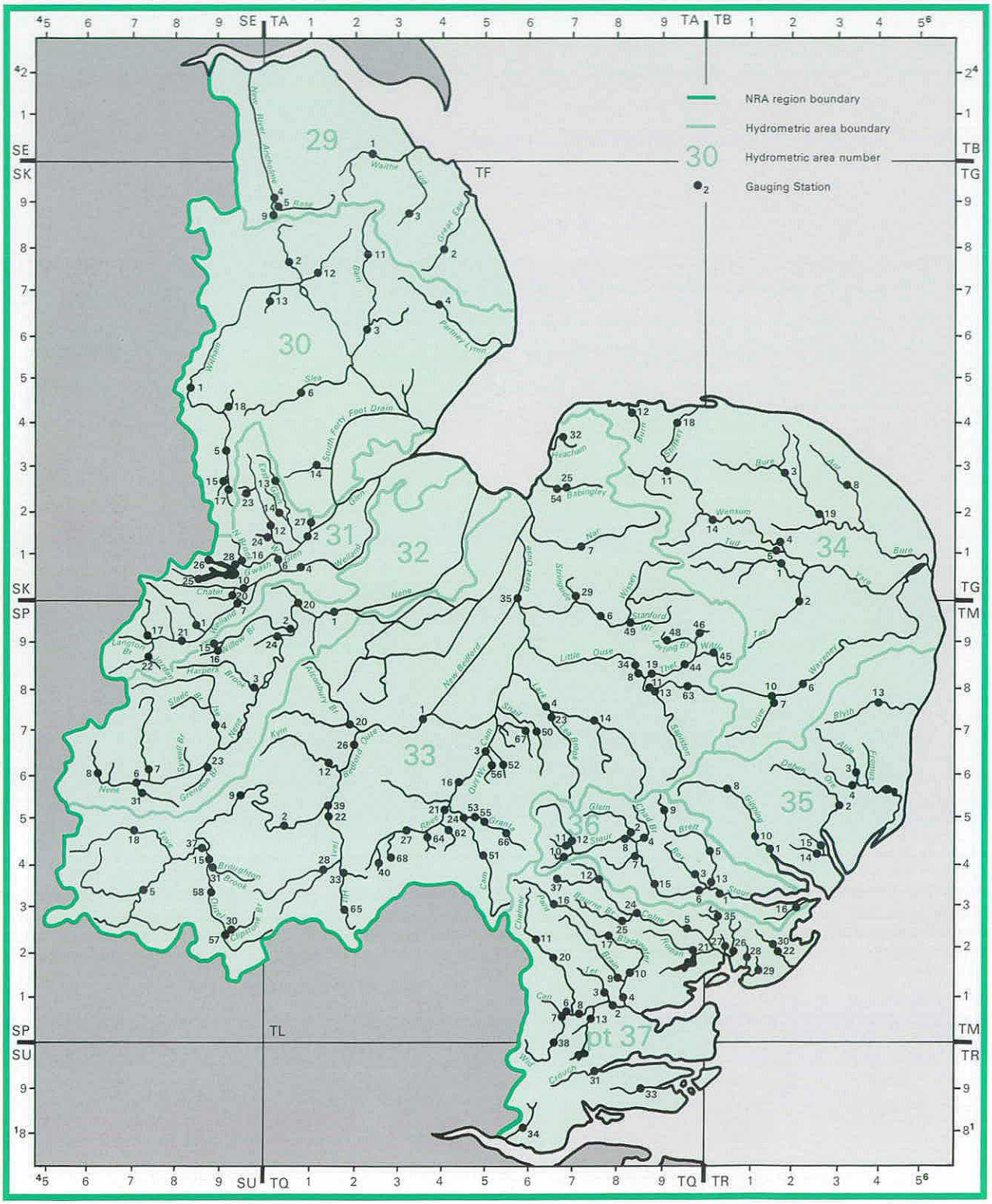
Naturalised daily and monthly flows

KEY:

Complete daily and complete monthly	A
Partial daily and complete monthly	B
Partial daily and partial monthly	C
Partial daily and no monthly	D
No daily and complete monthly	E
No daily and partial monthly	F
No naturalised flow data	-

Up-to-date Summaries of Archived Data are available on request from the National Water Archive Office.

ANGLIAN REGION



Area: 26,795 km^2

Average Rainfall (1961–90): 596mm

Gauging Station Register

Station number	River name	Station name	Grid reference	Catchment area (sq km)	Station type	Period of record	Mean ann. rainfall (mm)	Mean ann. runoff (mm)	Mean ann. loss (mm)	Max. ann. runoff (mm)	Year of max.	Min. ann. runoff (mm)	Year of min.	Mean flow (m^3s^{-1})	Min. mon. flow (m^3s^{-1})	Month/Year of min.	Mean ann. flood (m^3s^{-1})	10 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
029001	Waithe Beck	Brigsley	TA 253016	108.3	FL	1960..90	690	92	598	173	69	30	76	0.31	0.02	07/76	2.5	0.7	0.07
029002	Great Eau	Claythorpe Mill	TF 416793	77.4	C VA	1962–90	677	279	398	387	79	123	76	0.68	0.18	08/76	4.1	1.2	0.28
029003	Lud	Louth	TF 337879	55.2	C	1968–90	688	269	419	402	69	102	76	0.47	0.10	08/76	3.2	0.9	0.14
029004	Ancholme	Bishopbridge	TF 032911	54.7	CC	1968–90	630	295	335	599	79	93	76	0.51	>0.00	09/70	7.5	1.1	0.02
029005	Rase	Bishopbridge	TF 032912	66.6	C	1971–90	639	215	424	380	80	**96**	**90**	0.45	0.03	08/76	8.6	1.0	0.06
029009	Ancholme	Toft Newton	TF 033877	27.2	FV	1974–90	609	173	436	289	80	**66**	**89**	0.15	**0.00**	**10/90**	2.6	0.4	>0.00
030001	Witham	Claypole Mill	SK 842480	297.9	B	1959–90	616	184	432	297	79	63	76	1.74	0.06	07/76	17.9	3.8	0.35
030002 *	Barlings Eau	Langworth Br	TF 066766	210.1	FV	1960..87	620	198	422	377	69	70	76	1.32	0.01	08/76	21.3	3.3	0.04
030003	Bain	Fulsby Lock	TF 241611	197.1	B	1962..90	663	207	456	326	80	**76**	**90**	1.30	0.02	07/76	19.2	2.9	0.12
030004	Partney Lymn	Partney Mill	TF 402676	61.6	C	1962..90	687	262	425	386	69	**128**	**90**	0.51	0.09	07/76	7.8	0.9	0.16
030005 *	Witham	Saltersford total	SK 927335	126.1	CB B	1968..87		196		284	79	59	76	0.78	0.05	08/76		1.6	0.12
030006	Slea	Leasingham Mill	TF 088485	48.4	TP	1974..90	611	405	206	**1037**	**89**	1	76	0.62	**0.00**	**12/90**	2.2	1.4	
030011	Bain	Goulceby Bridge	TF 246795	62.5	C VA	1971–90	679	184	495	304	80	**77**	**90**	0.37	0.04	07/76	4.0	0.8	0.08
030012	Stainfield Bk	Stainfield	TF 127739	37.4	CC	1970..90	624	217	407	349	79	**84**	**90**	0.26	0.01	08/76	12.4	0.6	0.01
030013	Heigh'ton Bk	Heighington	TF 042696	21.2	C	1976–90	613	195	418	308	80	**79**	**89**	0.13	0.01	08/76	0.7	0.3	0.03
030014	Pointon Lode	Pointon	TF 128313	11.9	C	1972..89	580	178	402	315	80	42	76	0.07	0.00	08/76	2.7	0.2	>0.00
030015	Cringle Brook	Stoke Rochford	SK 925297	50.5	TP	1976–90	700	191	509	274	79	**107**	**89**	0.31	**0.03**	**10/90**	1.7	0.6	0.08
030017	Witham	Colsterworth	SK 929246	51.3	FV	1978–90	661	157	504	216	79	**73**	**90**	0.26	**0.02**	**10/90**	7.6	0.5	0.02
030018	Honington Bk	Honington	SK 936433	22.3	FV	1983–90	*540*	161	379	212	87	78	89	0.11	0.02	07/90		0.2	0.02
031001	Eye Brook	Eye Brook Res	SP 853941	60.1	C	1937..90	657	125	532	**320**	**87**	12	44	0.24	>0.00	11/40		0.6	0.03
031002	Glen	Kates Bridge	TF 106149	341.9	FV FL	1960–90	618	111	507	215	79	14	76	1.20	**0.00**	07/76		2.7	0.04
031004	Welland	Tallington	TF 095078	717.4	CB C	1967–90		189		296	69	57	76	4.29	**0.62**	**07/88**		9.3	0.82
031006	Gwash	Belmesthorpe	TF 038097	150.0	C	1967–90	631	171	460	300	69	72	76	0.81	0.20	09/76		1.5	0.29
031007	Welland	Barrowden	SP 948999	411.6	C	1968..90	644	183	461	281	79	79	76	2.39	0.09	07/72		5.3	0.22
031010	Chater	Fosters Bridge	SK 961030	68.9	CC	1968–90	655	236	419	379	77	91	73	0.51	0.02	07/76	10.1	1.1	0.06
031013	East Glen	Irnham	TF 038273	71.5	FV	1969..90	610	51	559	121	79	22	73	0.12	0.00	08/76		0.3	
031016	North Brook	Empingham	SK 957089	36.5	C	1969–90	621	203	418	335	79	68	76	0.24	0.00	01/69		0.5	0.06
031017 *	Stonton Brk	Welham Rd Br	SP 759918	42.7	C	1970..85	646	100	546	131	72	114	75	0.14	0.00	07/76		0.6	0.01
031020 *	Morcott Brk	South Luffenham	SK 939018	19.6	C	1970..85	628	148	480	262	74	97	73	0.09	0.01	07/76		0.3	0.01
031021	Welland	Ashley	SP 819915	250.7	C VA	1970..90	645	157	488	281	79	87	76	1.25	0.10	07/76	28.4	3.3	0.14
031022	Jordan	Mkt Harborough	SP 740867	20.8	C	1970..90	645	99	546	180	74	138	75	0.06	>0.00	10/70		0.2	>0.00
031023	West Glen	Easton Wood	SK 965258	4.4	FV	1972–90	644	158	486	237	79	57	73	0.02	**0.00**	**10/90**	2.5	0.1	
031024	Holywell Brk	Holywell	TF 026148	22.3	C	1971–90	*601*	163	438	293	79	14	76	0.12	0.00	11/76		0.2	0.01
031025	Gwash S Arm	Manton	SK 875051	24.5	FV	1978–90	682	251	431	348	79	**105**	**90**	0.19	**>0.00**	**09/90**	12.9	0.5	0.01
031026	Egleton Brk	Egleton	SK 878073	2.5	FV	1978–90	677	227	450	315	79	**101**	**90**	0.02	**0.00**	**10/90**	0.9	0.0	
031028	Gwash	Church Bridge	SK 951082	76.5	CC	1982..90	*640*	80	560	107	86	51	90	0.19	0.07	09/83		0.4	0.08
032001	Nene	Orton	TL 166972	1634.3	MIS	1939..90	634	181	453	312	79	54	44	9.39	0.48	08/44		24.5	1.10
032002	Willow Brook	Fotheringhay	TL 067933	89.6	FL	1938–90	612	275	337	437	79	85	44	0.78	0.09	08/44	5.5	1.3	0.24
032003	Harpers Brk	Old Mill Bridge	SP 983799	74.3	CC	1938..90	629	174	455	287	39	67	44	0.41	0.05	08/44	9.0	0.9	0.07
032004	Ise Brook	Harrowden Mill	SP 898715	194.0	FV	1943..90	638	221	417	380	60	69	44	1.36	0.11	08/44	15.5	3.0	0.20
032006	Nene/Kislingb'	Upton	SP 721592	223.0	FL C	1939–90	676	199	477	320	79	77	44	1.40	0.13	08/44		3.0	0.25
032007	Nene/Brampt'	St Andrews	SP 747617	232.8	FL BC	1939..90	667	163	504	315	41	57	76	1.20	0.04	08/44		2.6	0.21
032008	Kislingbury	Dodford	SP 627607	107.0	C	1945..90	672	179	493	308	79	76	76	0.61	0.05	09/49	10.2	1.3	0.11
032015	Willow Brook	Tunwell Loop	SP 898892	7.1	C	1969..90	632	160	472	204	72	58	69	0.04	0.00	07/69		0.1	
032020 *	Wittering Brk	Wansford	TL 089995	46.9	C	1970–85	576	151	425	229	79	86	73	0.22	0.03	07/76		0.4	0.09
032023 *	Grendon Brk	Ryeholmes Br	SP 883633	47.5	C	1970..85	606	67	539	102	74	74	72	0.10	0.00	09/71		0.4	
033001 *	Bedford Ouse	Brownshill St'nch	TL 369727	3030.0	MIS	1936..62	616	151	465	332	37	56	44	14.49	0.79	09/49		35.5	0.99
033002	Bedford Ouse	Bedford	TL 055495	1460.0	MIS	1933–90	651	217	434	408	37	52	34	10.03	0.04	08/34	81.8	26.3	0.92
033003	Cam	Bottisham	TL 508657	803.0	MIS	1936..87	591	143	448	325	51	42	73	3.64	0.60	08/57		7.0	0.89
033004 *	Lark	Isleham	TL 648760	466.2	MIS	1936..86	609	122	487	260	51	41	73	1.80	0.13	08/76		3.3	0.44
033005	Bedford Ouse	Thornborough	SP 736353	388.5	MIS	1951–90	659	208	451	448	51	72	73	2.56	0.04	08/76	20.9	6.1	0.24
033006	Wissey	Northwold	TL 771965	274.5	FL	1956–90	650	214	436	317	69	**116**	**90**	1.86	**0.24**	**09/90**	8.6	3.5	0.52
033007	Nar	Marham	TF 723119	153.3	FL	1953–90	680	243	437	342	58	**117**	**90**	1.18	**0.24**	**08/90**	4.3	2.1	0.49
033008 *	Little Ouse	Thetford Staunch	TL 860832	699.0	MIS	1958–68		136		179	61	92	64	3.01	0.39	09/64		6.1	0.66
033009	Bedford Ouse	Harrold Mill	SP 951565	1320.0	CB	1955..89	655	226	429	381	60	82	76	9.48	0.51	09/59	94.1	22.9	1.52
033011	Little Ouse	Euston	TL 892801	128.7	CB	1948..90	*585*	103	482	**194**	**87**	37	73	0.42	>0.00	08/49	3.5	0.8	0.10
033012	Kym	Meagre Farm	TL 155631	137.5	CB	1960–90	602	144	458	240	77	24	73	0.63	>0.00	07/76	18.2	1.5	0.02
033013	Sapiston	Rectory Bridge	TL 896791	205.9	TP	1949..90	599	103	496	**175**	**87**	34	73	0.67	0.01	07/49	6.2	1.4	0.11
033014	Lark	Temple	TL 758730	272.0	CB	1960–90	608	151	457	233	69	72	73	1.30	**0.34**	**08/90**	8.9	2.2	0.52
033015	Ouzel	Willen	SP 882408	277.1	FV	1962..89	653	229	424	336	79	86	73	2.01	0.19	08/76	18.6	4.4	0.46
033016 *	Cam	Jesus Lock	TL 450593	761.5	MIS	1959..83	582	118	464	184	79	38	73	2.86	0.34	09/64		6.5	0.81
033018	Tove	Cappenham Br	SP 714488	138.1	CB	1962..90	669	238	431	360	79	103	76	1.04	0.09	07/76	17.1	2.3	0.19
033019	That	Melford Bridge	TL 880830	316.0	C	1962..90	617	185	432	**295**	**87**	88	73	1.85	0.16	08/76	8.0	3.7	0.48
033020	Alconbury B	Brampton	TL 208717	201.5	MIS	1963..90	589	122	467	243	66	17	73	0.78	>0.00	10/72	19.7	2.1	0.01
033021	Rhee	Burnt Mill	TL 415523	303.0	C	1962..90	568	129	439	206	79	31	73	1.24	0.08	08/76	8.2	2.5	0.29
033022	Ivel	Blunham	TL 153509	541.3	C	1959..90	592	176	416	253	79	71	73	3.03	0.56	08/76	19.5	5.2	1.10
033023	Lea Brook	Beck Bridge	TL 662733	101.8	C	1962–90	553	78	475	153	69	8	73	0.25	>0.00	10/64	3.2	0.6	0.02
033024	Cam	Dernford	TL 466506	198.0	TP	1949..90	597	158	439	240	79	66	73	0.99	0.15	09/49	8.8	1.7	0.35
033025 *	Babingly	W Newton Mill	TF 696256	39.6	TP	1963..76	671	288	383	401	66	143	73	0.36	0.11	09/73		0.6	0.16
033026	Bedford Ouse	Offord	TL 216669	2570.0	MIS	1970–90	609	171	438	271	79	43	76	13.92	0.69	08/76		34.3	1.99
033027	Rhee	Wimpole	TL 333485	119.1	FL	1965–90	575	140	435	250	79	21	73	0.53	0.01	08/76	4.8	1.2	0.07
033028	Flit	Shefford	TL 143393	119.6	FL	1966–90	605	210	395	**270**	**88**	111	73	0.80	0.18	08/76	5.1	1.3	0.32
033029	Stringside	White Bridge	TF 716006	98.8	FL	1965–90	629	166	463	253	66	59	73	0.52	**0.01**	**09/90**	3.0	1.1	0.07
033030 *	Clipstone Brk	Clipstone	SP 933255	40.2	C	1957..80		184		339	79	36	73	0.23	0.01	09/73	7.9	0.5	0.02
033031	Broughton B	Broughton	SP 889408	66.6	FV	1971–90	626	143	483	246	79	46	73	0.30	**0.02**	**08/90**		0.7	0.04
033032	Heacham	Heacham	TF 685375	59.0	C	1965–90	682	111	571	177	79	34	73	0.21	**0.03**	**12/90**		0.4	0.05
033033	Hiz	Arlesey	TL 190379	108.0	C	1973–90	609	197	412	263	79	113	76	0.67	0.23	08/76		1.0	0.35
033034	Little Ouse	Abbey Heath	TL 851844	699.3	C	1968–90	607	175	432	256	69	80	73	3.89	0.62	08/76	17.2	7.2	1.19
033035	Ely Ouse	Denver Complex	TF 588010	3430.0	MIS	1958–76	581	142	439	236	69	67	73	15.44	0.00	08/76		34.2	2.03
033037	Bedford Ouse	Newp't Pagnell	SP 877443	800.0	CC C	1969–90	647	200	447	324	79	80	76	5.08	0.17	08/76	50.7	12.2	0.48

Station number	River name	Station name	Grid reference	Catchment area (sq km)	Station type	Period of record	Mean ann. rainfall (mm)	Mean ann. runoff (mm)	Mean ann. loss (mm)	Max. ann. runoff (mm)	Year of max.	Min. ann. runoff (mm)	Year of min.	Mean flow (m^3s^{-1})	Min. mon. flow (m^3s^{-1})	Month/Year of min.	Mean ann. flood (m^3s^{-1})	10 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
033039	Bedford Ouse	Roxton	TL 160535	1660.0	FV	1972-90	630	212	418	308	79	76	73	11.18	0.34	08/76		27.1	1.85
033040	Rhee	Ashwell	TL 267401	2.0	FL	1965..90	*570*				79		73	0.07	0.02	09/76		0.1	0.02
033044	Thet	Bridgham	TL 957855	277.8	C	1967-90	627	183	444	283	69	82	73	1.61	0.21	08/76	8.6	3.3	0.39
033045	Wittle	Quidenham	TM 027878	28.3	CB	1967-90	612	152	460	265	69	47	73	0.14	>0.00	08/76	1.4	0.3	0.02
033046	Thet	Red Bridge	TL 996923	145.3	C	1967-90	627	192	435	291	69	81	73	0.88	0.07	08/76	7.8	1.9	0.14
033048	Larling Brook	Stonebridge	TL 928907	21.4	FL	1969-90	625	83	542	**181**	**88**	29	73	0.06	**>0.00**	**09/90**		0.1	0.01
033049 *	Stanford Wtr	Buckenham Tofts	TL 834953	43.5	B	1973-80		191		270	75	124	73	0.26	0.08	08/76	0.7	0.5	0.11
033050	Snail	Fordham	TL 631703	60.6	fv	1960..90	*575*	162	413	**236**	**83**	100	67	0.31	0.08	08/76		0.5	0.12
033051	Cam	Chesterford	TL 505426	141.0	CB	1964-90	604	133	471	210	79	43	73	0.59	0.14	07/76		1.1	0.18
033052	Swaffham	Swaffham B'lbeck	TL 553628	36.4	C	1963..89	*564*	138	426	222	69	50	76	0.16	0.02	08/76		0.3	0.06
033053	Granta	Stapleford	TL 471515	114.0	MIS	1949..87		62		156	**87**	4	73	0.22	0.00	09/76		0.5	0.01
033054	Babingley	Castle Rising	TF 680252	47.7	FV	1976-90	679	337	342	443	81	**161**	**90**	0.51	**0.14**	**10/90**		0.8	0.19
033055	Granta	Babraham	TL 510504	98.7	FV	1963..90	*592*	81	511	**160**	**87**	**34**	**90**	0.25	>0.00	10/76		0.5	0.02
033056	Quy Water	Lode	TL 531627	76.4	MIS	1965..89	*591*	75	516	**163**	**88**	8	65	0.18	0.00	10/72		0.5	0.01
033057	Ouzel	Leighton Buz'rd	SP 917241	119.0	C	1976-89	*644*	207	437	288	79	**145**	**89**	0.78	0.14	08/76		1.6	0.24
033058	Ouzel	Bletchley	SP 883322	215.0	FV	1978..90	669	276	393	389	79	206	85	1.88	**0.42**	**09/90**		3.9	0.51
033063	Little Ouse	Knettishall	TL 955807	101.0	MIS	1980-90	613	149	464	227	87	**69**	**90**	0.48	**0.06**	**08/90**		0.9	0.13
033064	Whaddon Brk	Whaddon	TL 359466	16.0	FL	1980-89		166		221	88	138	81	0.08	**0.04**	**11/89**		0.1	0.04
033065	Hiz	Hitchin	TL 185290	6.8	CC	1980-89	634	162	472	278	83	**97**	**86**	0.04	**0.01**	**11/89**		0.1	0.02
033066	Granta	Linton	TL 570464	59.8	CC	1981-90	604	108	496	198	87	45	90	0.20	>0.00	12/90		0.4	0.01
033067	New River	Burwell	TL 608696	19.6	C	1982-89	*586*	380	206	525	88	240	86	0.24	0.09	10/89		0.4	0.10
033068	Cheney Water	Gatley End	TL 296411	5.0	C	1982-89	*582*	107	475	177	88	57	89	0.02	0.00	12/89		0.0	
034001	Yare	Cotney	TG 182082	231.8	MIS	1959-90	652	195	457	303	69	105	73	1.43	**0.19**	**08/90**	10.4	3.1	0.36
034002	Tas	Shotesham	TM 226994	146.5	FV	1957..90	615	159	456	280	69	60	73	0.74	**0.11**	**07/86**	10.3	1.5	0.18
034003	Bure	Ingworth	TG 192296	164.7	MIS	1959-90	671	212	459	285	69	153	73	1.11	0.49	07/76	6.7	1.7	0.59
034004	Wensum	Costessey Mill	TG 177128	536.1	CB	1960..90	674	242	432	339	69	**135**	**90**	4.12	**0.79**	**08/90**	18.6	7.4	1.44
034005	Tud	Costessey Park	TG 170113	73.2	FL	1961..90	661	152	509	236	69	85	73	0.35	0.05	08/76	3.3	0.7	0.10
034006	Waveney	Needham Mill	TM 229811	370.0	CC	1963-90	594	155	439	**287**	**87**	46	73	1.81	**0.24**	**07/90**	32.0	4.1	0.32
034007	Dove	Oakley Park	TM 174772	133.9	CC	1966..90	578	169	409	**405**	**88**	49	73	0.72	**0.13**	**07/90**	14.3	1.4	0.15
034008	Ant	Honing Lock	TG 331270	49.3	C	1966..90	645	200	445	243	69	158	76	0.31	0.13	06/76	1.1	0.4	0.18
034010	Waveney	Billingford Br	TM 168782	149.4	MIS	1968..90	606	166	440	**281**	**87**	41	73	0.79	0.04	07/76	13.2	1.8	0.07
034011	Wensum	Fakenham	TF 919294	127.1	MIS	1967..90	693	222	471	337	69	**109**	**73**	0.89	0.17	07/76	3.8	1.6	0.28
034012	Burn	Burnham Overy	TF 842428	80.0	CC	1966-90	669	125	544	203	69	**44**	**90**	0.32	**0.07**	**09/90**	0.9	0.5	0.10
034013	Waveney	Ellingham Mill	TM 364917	670.0	C	1972..90	579	30	549	38	75	19	79	0.63	0.25	11/80		0.9	0.26
034014	Wensum	Swanton Morley	TG 020184	363.0	CC	1969..90	*670*	232	438	**326**	**87**	144	73	2.67	0.62	07/76		4.8	1.04
034018	Stiffkey	Warham All Sts	TF 944414	77.1	FV	1972..90	655	223	432	555	75	**103**	**90**	0.55	0.06	07/76		1.0	0.12
034019	Bure	Horstead Mill	TG 267194	313.0	MIS	1974..90	654	224	430	**278**	**87**	172	76	2.22	**0.62**	**09/90**		3.3	1.09
035001	Gipping	Constantine Wr	TM 154441	310.8	MIS	1964..88	*581*	140	441	**223**	**87**	99	80	1.38	0.09	08/65	20.3	3.2	0.20
035002	Deben	Naunton Hall	TM 322534	163.1	CC	1964..90	595	149	446	**274**	**87**	39	73	0.77	0.04	07/76		1.8	0.10
035003	Alde	Farnham	TM 360601	63.9	MIS	1961..90	585	141	444	**260**	**87**	40	73	0.29	**0.03**	**08/90**	6.6	0.6	0.05
035004	Ore	Beversham Br	TM 359583	54.9	CC	1965..90	604	180	424	**288**	**87**	65	73	0.31	0.05	07/76	5.1	0.6	0.07
035008	Gipping	Stowmarket	TM 058578	128.9	CC	1964..90	578	151	427	**255**	**87**	36	73	0.62	**0.07**	**08/90**	15.3	1.4	0.08
035010	Gipping	Bramford	TM 127465	298.0	MIS	1969..90	557	123	434	**199**	**87**	28	73	1.16	0.09	08/76	13.7	2.5	0.18
035013	Blyth	Holton	TM 406769	92.9	CC	1970..90	583	140	443	**228**	**87**	41	73	0.41	**0.04**	**08/90**		0.9	0.06
035014 *	Mill River	Newbourn	TM 270420	27.1	MIS	1948..69		176		230	61	142	50	0.15	0.10	08/49	0.5	0.2	0.11
036001	Stour	Stratf'rd St Mary	TM 042340	844.3	MIS	1928..90	598	116	482	**267**	**87**	37	34	3.10	0.14	07/76	32.8	7.8	0.56
036002	Glem	Glemsford	TL 846472	87.3	FL	1960-90	598	173	425	**296**	**87**	48	73	0.48	0.06	08/76	8.9	1.1	0.07
036003	Box	Polstead	TL 985378	53.9	FL	1960-90	581	125	456	**208**	**87**	50	73	0.21	0.04	08/76	3.7	0.4	0.06
036004	Chad Brook	Long Melford	TL 868459	47.4	EW	1965-90	589	168	421	**319**	**87**	35	73	0.25	0.02	09/76	6.5	0.5	0.03
036005	Brett	Hadleigh	TM 025429	156.0	EW	1962-90	581	139	442	**236**	**87**	27	73	0.69	0.04	08/76	12.0	1.5	0.09
036006	Stour	Langham	TM 020344	578.0	FL	1962-90	582	160	422	**279**	**87**	78	73	2.93	0.19	07/76	33.4	6.3	0.53
036007	Belchamp Brk	Bardfield Bridge	TL 848421	58.6	FL	1960..90	562	95	467	**213**	**87**	17	73	0.18	0.01	09/64	4.9	0.4	0.02
036008	Stour	Westmill	TL 827463	224.5	FL	1960-90	598	178	420	**305**	**87**	90	64	1.27	0.07	08/76	22.4	2.6	0.13
036009	Brett	Cockfield	TL 914525	25.7	EW	1968-90	609	157	452	**269**	**87**	16	73	0.13	**0.00**	**09/90**	3.8	0.3	>0.00
036010	Bumpstead B	Broad Green	TL 689418	28.3	EW	1968-90	603	157	446	**313**	**87**	20	73	0.14	>0.00	08/76	7.4	0.3	>0.00
036011	Stour Brook	Sturmer	TL 696441	34.5	EW	1968-90	597	209	388	**364**	**87**	56	73	0.23	0.04	10/72	5.7	0.5	0.04
036012	Stour	Kedington	TL 708450	76.2	EW	1968-90	600	281	319	**698**	**90**	156	85	0.68	0.02	08/76		1.7	0.04
036015	Stour	Lamarsh	TL 897358	480.7	MIS	1972-90	588	157	431	208	82	65	73	2.40	0.23	08/76		4.7	0.60
037002	Chelmer	Rushes Lock	TL 794090	533.9	FV	1932..90	589	109	480	**195**	**87**	25	34	1.85	0.01	08/55		4.8	0.11
037003	Ter	Crabbs Bridge	TL 786107	77.8	FL	1932-90	582	105	477	188	37	17	34	0.26	0.02	08/35	5.5	0.5	0.03
037004 *	Blackwater	Langford	TL 836092	337.0	MIS	1932-68		128		248	60	37	34	1.37	0.13	08/35		2.9	0.23
037005	Colne	Lexden	TL 962261	238.2	FL	1959-90	571	138	433	229	60	48	73	1.04	0.09	08/65	13.9	2.1	0.21
037006	Can	Beach's Mill	TL 690072	228.4	FL	1962-90	590	174	416	**265**	**87**	62	73	1.26	0.10	08/76	20.6	2.8	0.19
037007	Wid	Writtle	TL 686060	136.3	EW	1964-90	606	199	407	**312**	**87**	68	73	0.86	0.09	08/76	15.8	2.0	0.12
037008	Chelmer	Springfield	TL 713071	190.3	EW	1965-90	589	173	416	**238**	**88**	58	73	1.04	0.18	08/76	15.4	2.0	0.28
037009	Brain	Guithavon	TL 818147	60.7	EW	1962-90	580	194	386	**297**	**88**	97	73	0.37	0.13	08/76	4.2	0.6	0.16
037010	Blackwater	Appleford Bridge	TL 845158	247.3	FL	1962-90	576	154	422	**212**	**87**	105	76	1.21	0.16	08/76	12.6	2.3	0.32
037011	Chelmer	Churchend	TL 629233	72.6	FL	1963-90	589	156	433	**232**	**87**	39	73	0.36	0.02	07/76	8.8	0.8	0.06
037012	Colne	Poolstreet	TL 771364	65.1	FL	1963-90	577	134	443	**245**	**87**	14	73	0.28	0.00	08/76	10.2	0.7	>0.00
037013	Sandon Brk	Sandon Bridge	TL 755055	60.6	EW	1963-90	565	152	413	258	82	37	73	0.29	0.02	06/76	8.9	0.6	0.04
037016	Pant	Copford Hall	TL 668313	62.5	EW	1965-90	614	178	436	**309**	**90**	110	85	0.35	>0.00	08/76	8.8	1.0	0.02
037017	Blackwater	Stisted	TL 793243	139.2	EW	1969-90	580	171	409	223	70	131	85	0.75	0.08	08/76		1.5	0.16
037020	Chelmer	Felsted	TL 670193	132.1	EW	1970-90	587	161	426	232	79	56	73	0.68	0.09	07/76		1.3	0.16
037021	Roman	Bounstead Br	TL 985205	52.6	EW	1970-90	553	138	415	**276**	**88**	49	73	0.23	0.05	08/76	7.0	0.4	0.06
037022	Holland Brk	Thorpe le Soken	TM 179212	54.9	EW	1970-90	567	139	428	**199**	**88**	48	73	0.68	0.06	08/76		1.4	0.12
037024	Colne	Earls Colne	TL 855298	154.2	EW	1971..90	567	139	428	**199**	**88**	48	73	0.68	0.06	08/76		1.4	0.12
037025 *	Bourne Brook	Perces Bridge	TL 822276	32.1	TP	1965..73	571	118	453	140	67	101	65	0.12	0.03	08/73		0.3	0.03
037026 *	Tenpenny Brk	Tenpenny Bridge	TM 079207	29.0	TP	1961..76		90		141	66	28	73	0.08	0.01	06/74		0.2	0.01
037027 *	Sixpenny Brk	Ship House Br	TM 054214	5.1	TP	1960..71		161		260	70	136	68	0.03	>0.00	10/64		0.1	0.01
037028 *	Bentley Brook	Saltwater Bridge	TM 109193	12.1	TP	1960..76		89		159	69	29	73	0.03	0.00	06/76		0.1	0.01
037029 *	St Osyth Brk	Main Road Br	TM 134159	8.0	FL	1960..76		122		225	69	24	73	0.03	>0.00	06/70		0.1	>0.00
037030 *	Holland Brk	Cradle Bridge	TM 171217	48.6	TP	1962..70	558	104	454	157	66	62	65	0.16	0.01	09/64		0.5	0.02
037031	Crouch	Wickford	TQ 748934	71.8	C VA	1976-87	608	151	457	188	79	116	85	0.34	0.06	09/85		0.7	0.05
037033	Eastwood Brk	Eastwood	TQ 859888	10.4	C	1975..90	*561*	152	409	**215**	**87**	100	76	0.05	**0.01**	**08/83**		0.1	0.01
037034	Mardyke	Stifford	TQ 596804	90.7	EW	1974..90		147		288	87	74	90	0.42	0.03	08/76		0.8	0.05
037037	Toppesfield B	Cornish Hall	TL 675377	1.3	VN	1981..90	*594*	170	424	97	84		90	0.01	0.00	12/90		0.0	
037038 *	Wid	Margaretting	TL 67200	98.6	MIS	1951-74		165		231	68	84	73	0.51	>0.00	08/52		1.3	0.05

Hydrometric Statistics

		Period	Rainfall (mm)	% of pre-1986	Runoff (mm)	% of pre-1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
029001	**Waithe Beck at Brigsley** C.A: 108.3 km²	**60..85**	**699**		**94**		**0.32**	**7.2**	**26/04 1981**	**0.02**	**23/07 1976**	**0.7**	**0.20**	**0.08**
M.A: NRA-A	Level: 16m Local Number:													
F.A.R: PGEI	B.F.I: .84 Sensitivity: 2.9	1986	774	111	109	116	0.38	1.8	30/12	0.10	29/10	0.7	0.36	0.11
Comment: Broad trapezoidal flume (1.83m wide at base) with theoretical rating confirmed to 0.9 m^3s^{-1}. All recorded flows have been contained within the structure. Groundwater abstraction near Grimsby and irrigation abstractions have significant effect on low flows. # The catchment is 81% Chalk and largely rural.		1987	741	106	118	126	0.40	1.7	20/10	0.14	01/10	0.7	0.37	0.17
		1988	693	99	107	114	0.37	2.4	29/01	0.09	10/10	0.9	0.21	0.10
		1989	515	74	39	41	0.13	0.9	18/12	0.04	02/09	0.2	0.12	0.05
		1990	502	72	36	38	0.12	1.7	07/02	0.03	02/08	0.3	0.09	0.04
029002	**Great Eau at Claythorpe Mill** C.A: 77.4 km²	**62-85**	**679**		**278**		**0.68**	**13.3**	**11/07 1968**	**0.17**	**26/08 1976**	**1.2**	**0.56**	**0.28**
M.A: NRA-A	Level: 7m Local Number:													
F.A.R: GI	B.F.I: .88 Sensitivity: 11.6	1986	807	119	350	126	0.86					1.2	0.88	0.48
Comment: Simple low flow Crump profile weir 3.073m wide with flanking broad-crest sections. Total width 9.687m. Crump portion is theoretically rated and upper portion rated theoretically assuming it to be a broad-crested weir. Flows to May 1973 suspect due to error in gauged head and rounding of crest during cleaning. Small amounts of abstraction for irrigation in summer. # The catchment is 81% Chalk and predominantly rural.		1987	760	112	368	132	0.90	3.3	16/10	0.46	01/10	1.3	0.81	0.48
		1988	725	107	354	127	0.87	5.0	29/01	0.40	18/11	1.5	0.65	0.43
		1989	534	79	184	66	0.45	1.8	18/12	0.28	15/10	0.6	0.44	0.29
		1990	517	76	165	59	0.41	2.1	07/02	0.24	16/10	0.6	0.36	0.26
029003	**Lud at Louth** C.A: 55.2 km²	**68-85**	**697**		**273**		**0.48**	**6.8**	**02/11 1968**	**0.09**	**07/09 1976**	**0.9**	**0.36**	**0.13**
M.A: NRA-A	Level: 15m Local Number:													
F.A.R: G	B.F.I: .90 Sensitivity: 25.9	1986	781	112	319	117	0.56	2.8	30/12	0.17	26/10	0.9	0.57	0.19
Comment: Crump profile weir, 4.569m wide, at upstream end of long culvert. Theoretical rating confirmed by current metering, capacity limited to 20 m^3s^{-1} - not yet exceeded by culvert. Flows recorded 1966-1968 at sharp-crested weir at Bridge Street. No major abstractions or returns, but mill regulation produces short term spikes. 1920 flood estimated at about 140 m^3s^{-1}. # Catchment is 73% Chalk and largely rural.		1987	741	106	348	127	0.61	1.9	10/10	0.27	29/09	0.9	0.58	0.29
		1988	708	102	336	123	0.59	3.4	29/01	0.20	07/10	1.1	0.43	0.24
		1989	535	77	137	50	0.24	2.4	26/08	0.10	25/11	0.4	0.24	0.11
		1990	509	73	138	51	0.24	1.6	25/01	0.14	21/12	0.4	0.20	0.15
029004	**Ancholme at Bishopbridge** C.A: 54.7 km²	**68-85**	**644**		**282**		**0.49**	**23.0**	**26/04 1981**	**0.00**	**30/09 1972**	**1.2**	**0.29**	**0.01**
M.A: NRA-A	Level: 4m Local Number:													
F.A.R: SRGI	B.F.I: .45 Sensitivity: 63.3	1986	660	102	337	120	0.58	5.3	02/02	0.04	01/07	1.0	0.52	0.09
Comment: Compound Crump profile weir, with central crest 2.448m wide and total width of 9.131m. Theoretical rating confirmed to 5.5 m^3s^{-1}, but structure drowns in high flows and is affected by weed growth in summer. Flows are very heavily augmented in summer from Toft Newton Reservoir. # Catchment is 53% clay, 47% Lincolnshire Limestone, flat and rural.		1987	673	105	328	116	0.57	5.0	20/10	0.08	01/06	1.1	0.43	0.13
		1988	588	91	308	109	0.53	5.0	24/01	0.04	05/11	1.0	0.46	0.06
		1989	531	82	321	114	0.56					1.0	0.51	0.09
		1990	457	71	413	146	0.72	5.5	07/02	0.05	21/05	1.3	0.65	0.07
029005	**Rase at Bishopbridge** C.A: 66.6 km²	**71-85**	**648**		**222**		**0.47**	**21.4**	**26/04 1981**	**0.02**	**27/08 1976**	**1.0**	**0.26**	**0.06**
M.A: NRA-A	Level: 4m Local Number:													
F.A.R: PGEI	B.F.I: .55 Sensitivity: 39.1	1986	726	112	258	116	0.55	12.6	02/02	0.08	23/10	1.1	0.40	0.10
Comment: Crump profile weir (crest length 3.658m) with theoretical calibration. Station drowns above about 9 m^3s^{-1}, and relationship between upstream and downstream levels depends on weed growth and the disposition of sluices and gates at Harlam Weir downstream. Abstractions for public supply in upper reaches has some effect on summer low flows. # Catchment is rural and 89% clay.		1987	723	112	305	137	0.64	12.6	16/10	0.15	05/08	1.1	0.46	0.18
		1988	620	96	204	92	0.43	8.5	29/01	0.07	17/08	1.1	0.20	0.09
		1989	519	80	98	44	0.21	5.9	18/12	0.03	09/09	0.4	0.10	0.04
		1990	471	73	96	43	0.20	8.5	07/02	0.04	06/08	0.5	0.09	0.05
029009	**Ancholme at Toft Newton** C.A: 27.2 km²	**74-85**	**624**		**190**		**0.16**	**7.1**	**26/04 1981**	**0.00**	**13/09 1976**	**0.4**	**0.06**	**>0.00**
M.A: NRA-A	Level: 8m Local Number:													
F.A.R: GI	B.F.I: .52 Sensitivity: 74.8	1986	656	105	163	86	0.14	1.5	30/12	0.01	17/07	0.4	0.08	0.01
Comment: Flat V weir (3.03m wide) with theoretical calibration confirmed by check gaugings. There is no drowning or bypassing, and the station is immediately upstream of entry point of flows from Toft Newton reservoir. No major abstractions or returns. # The catchment is on Lincolnshire Limestone and clays and is flat and rural.		1987	666	107	218	115	0.19	1.4	21/10	0.02	31/05	0.4	0.14	0.03
		1988	582	93	152	80	0.13	1.5	23/01	0.01	24/09	0.4	0.05	0.01
		1989	538	86	66	35	0.06	1.1	18/12	0.00	21/08	0.2	0.02	>0.00
		1990	457	73	76	40	0.07	2.8	07/02	0.00	03/07	0.2	0.01	
030001	**Witham at Claypole Mill** C.A: 297.9 km²	**59-85**	**622**		**184**		**1.74**	**37.5**	**11/02 1977**	**0.02**	**24/07 1976**	**3.8**	**1.03**	**0.33**
M.A: NRA-A	Level: 17m Local Number:													
F.A.R: RPE	B.F.I: .67 Sensitivity: 10.8	1986	660	106	213	116	2.01	15.5	10/01	0.41	29/09	3.8	1.48	0.55
Comment: An old weir at three levels with a total width of 24.99m converted into a standard Lea designed broad-crested weir. It is rated theoretically and there is no bypassing or drowning. Low flows in summer are moderately influenced by transfer of water from Rutland Water (since 1985) and abstractions for public supply at Saltersford. # The catchment is clay (50%) with limestone (40%) and gravel, and is largely rural.		1987	682	110	242	132	2.28	13.4	21/10	0.56	19/08	4.0	2.04	0.74
		1988	598	96	204	111	1.92	19.9	24/01	0.49	26/09	4.2	1.11	0.55
		1989	573	92	126	68	1.19	11.0	07/04	0.29	07/09	2.4	0.78	0.39
		1990	500	80	128	70	1.21	14.6	28/02	0.27	14/08	3.0	0.63	0.33
030002	**Barlings Eau at Langworth Bridge** C.A: 210.1 km²	**60..85**	**618**		**194**		**1.29**	**36.3**	**21/01 1985**	**0.00**	**29/08 1976**	**3.2**	**0.48**	**0.04**
M.A: NRA-A	Level: 4m Local Number: 30902													
F.A.R: GI	B.F.I: .46 Sensitivity: 29.6	1986	658	106	205	106	1.36	28.8	30/12	0.05	16/10	3.1	0.65	0.06
Comment: A natural section was replaced in November 1965 by a low flow compound Crump profile weir, which ceased operating in September 1978. The present Flat V weir has been operating since June 1980 and the theoretical rating is confirmed by check gaugings. Structure drowns at about 19 m^3s^{-1}. Irrigation abstractions reduce summer low flows. # Mostly Boulder Clay with some limestone in the headwaters, flat and predominantly rural but with some new urban development.		1987	666	108	277	143	1.85	31.4	21/10	0.14	12/08	3.6	1.04	0.22
		1988	594	96										
		1989	519	84										
		1990	446	72										
030003	**Bain at Fulsby Lock** C.A: 197.1 km²	**62..85**	**673**		**212**		**1.32**	**57.0**	**26/04 1981**	**0.00**	**14/07 1976**	**2.9**	**0.72**	**0.14**
M.A: NRA-A	Level: 10m Local Number:													
F.A.R: SPI	B.F.I: .58 Sensitivity: 24.2	1986	756	112	261	123	1.63	27.4	20/05	0.22	07/10	3.3	1.26	0.24
Comment: Broad-crested weir 15.08m wide rated by model tests situated in old lock. Small bypass channel upstream feeds original river course and a disused model flume, gauged by sharp-crested weir. Flows over bypass not processed since 1981 and subsequent low flows therefore underestimated. Revesby Reservoir has a very minor influence, and abstractions for irrigation may be significant in dry summers. # Rural catchment, mostly clay with Chalk and sandstone in the headwaters.		1987	729	108	286	135	1.79	17.9	10/10	0.28	08/07	3.7	1.33	0.36
		1988	667	99	227	107	1.42	21.4	24/01	0.23	16/08	3.4	0.64	0.26
		1989	516	77	88	42	0.55	5.6	18/12	0.06	27/07	1.2	0.28	0.09
		1990	471	70	76	36	0.48	7.2	07/02	0.03	04/08	1.4	0.19	0.06
030004	**Partney Lymn at Partney Mill** C.A: 61.6 km²	**62..85**	**693**		**265**		**0.52**	**13.4**	**11/07 1968**	**0.06**	**07/07 1976**	**1.0**	**0.36**	**0.17**
M.A: NRA-A	Level: 15m Local Number:													
F.A.R: PI	B.F.I: .66 Sensitivity: 23.7	1986	790	114	309	117	0.60	11.3	20/05	0.20	22/07	1.1	0.44	0.23
Comment: Crump weir with 5m crest rated by model tests and confirmed by check gaugings. The weir is probably non-modular at very high flows due to backing up behind struts and a bridge, but is bypassed just before this point. Abstraction for irrigation in upper reaches may have effect on low flows in summer. # Equally divided between sandstone and Boulder Clay and wholly rural.		1987	745	108	339	128	0.66	7.3	16/10	0.22	13/07	1.2	0.50	0.24
		1988	697	101	302	114	0.59	9.5	24/01	0.23	16/08	1.0	0.40	0.26
		1989	525	76	164	62	0.32	3.3	18/12	0.11	20/07	0.6	0.22	0.13
		1990	509	73	129	49	0.25	3.2	07/02	0.08	11/08	0.4	0.19	0.11
030006	**Slea at Leasingham Mill** C.A: 48.4 km²	**74..85**	**625**		**381**		**0.58**	**5.2**	**01/03 1977**	**0.00**	**04/12 1985**	**1.6**	**0.32**	
M.A: NRA-A	Level: 12m Local Number:													
F.A.R: PGI	B.F.I: .87 Sensitivity:	1986	598	96	333	87	0.51	1.5	10/02	0.00	24/09	1.2	0.44	
Comment: Rectangular thin-plate weir 1.372m wide set in old gate site, modified in 1984. Theoretical rating, with section above thin-plate treated as broad-crested weir. No drowning. Groundwater abstraction has potential for reducing summer low flows. # Unresponsive catchment, predominatly limestone and rural.		1987	670	107	402	106	0.62	1.9	14/04	0.00	01/01	1.2	0.65	0.05
		1988	576	92	370	97	0.57	2.6	04/02	0.00	01/09	1.5	0.18	
		1989	539	86						0.00	18/01			
		1990	483	77	164	43	0.25			0.00	01/01	0.9		

		Period	Rainfall (mm)	% of pre-1986	Runoff (mm)	% of pre-1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
030011	**Bain at Goulceby Bridge** C.A: 62.5 km²	**71-85**	**692**		**191**		**0.38**	**16.4**	**26/04**	**0.03**	**29/06**	**0.8**	**0.25**	**0.10**
M.A: NRA-A	Level: 52m Local Number:								**1981**		**1976**			
F.A.R: SGI	B.F.I: .73 Sensitivity: 31.6	1986	786	114	221	116	0.44	3.0	02/02	0.11	20/09	0.8	0.40	0.12
Comment: Free-fall drop under bridge calibrated by current metering until December 1969 and standard full-range Crump profile weir (crest length 4.877m) since August 1971 (no records between). Abstraction for irrigation could have significant effect on low flows in dry summers. # North-south trending rural catchment underlain by Chalk (50%) and sandstone (20%) on the scarp slope of the Lincolnshire Wolds.		1987	726	105	241	126	0.48	2.0	01/04	0.15	12/08	0.8	0.44	0.18
		1988	688	99	205	107	0.40	2.5	24/01	0.07	02/11	0.9	0.25	0.14
		1989	527	76	86	45	0.17	0.9	18/12	0.05	26/07	0.3	0.13	0.06
		1990	471	68	77	40	0.15	1.1	07/02	0.04	06/08	0.4	0.09	0.05
030012	**Stainfield Beck at Stainfield** C.A: 37.4 km²	**70..85**	**628**		**231**		**0.27**	**21.5**	**21/01**	**0.00**	**27/08**	**0.6**	**0.11**	**0.01**
M.A: NRA-A	Level: 8m Local Number:								**1985**		**1976**			
F.A.R: N	B.F.I: .45 Sensitivity: 63.6	1986	712	113	217	94	0.26			0.02	16/08	0.6	0.16	0.02
Comment: Compound Crump profile weir which becomes non-modular above about 2 m^3s^{-1}. Central weir 1.225m wide, total width 5.791m. Dividing walls lowered in 1986 to stop debris entrapment. Crest tapping record no longer processed, although there is a chart recorder. No major abstractions or returns. # Flat, rural catchment underlain by Kimmeridge Clay.		1987	693	110	303	131	0.36			0.04	08/08	0.7	0.21	0.06
		1988	644	103	220	95	0.26			0.03	16/08	0.7	0.10	0.04
		1989	516	82	99	43	0.12	3.4	18/12	0.00	21/08	0.3	0.04	0.01
		1990	451	72	84	36	0.10	2.7	07/02	0.00	05/08	0.3	0.02	0.01
030013	**Heighington Beck at Heighington** C.A: 21.2 km²	**76-85**	**634**		**219**		**0.15**	**1.2**	**13/02**	**0.00**	**26/08**	**0.3**	**0.09**	**0.03**
M.A: NRA-A	Level: 11m Local Number:								**1977**		**1976**			
F.A.R: GI	B.F.I: .75 Sensitivity: 61.1	1986	626	99	158	72	0.11	0.4	13/01	0.03	17/10	0.2	0.07	0.03
Comment: Crump profile weir 3.51m wide with theoretical calibration. Expected to drown at high flows. Summer low flows may be heavily influenced by groundwater abstraction for irrigation. # Very slow responding, permeable (98% limestone) rural catchment.		1987	679	107	233	106	0.16	0.9	10/04	0.05	16/08	0.3	0.13	0.06
		1988	607	96	173	79	0.12	0.7	31/01	0.02	07/10	0.3	0.06	0.03
		1989	528	83	79	36	0.05	0.3	24/12	0.02	16/10	0.1	0.04	0.02
		1990	457	72	105	48	0.07	0.3	13/02	0.02	12/08	0.2	0.05	0.02
030014	**Pointon Lode at Pointon** C.A: 11.9 km²	**72..85**	**575**		**180**		**0.07**	**4.9**	**08/03**	**0.00**	**15/09**	**0.2**	**0.03**	
M.A: NRA-A	Level: 3m Local Number:								**1975**		**1984**			
F.A.R: I	B.F.I: .48 Sensitivity:	1986	623	108	169	94	0.06	2.3	10/01	0.00	06/08	0.1	0.04	0.01
Comment: Crump profile weir 2.445m wide with theoretical calibration. Expected to drown at high flows. Abstractions for irrigation have minor effect on summer low flows. # Drainage channel in low lying area draining highland limestone, although limestone is exposed under only 21% of catchment; rest covered by Drift (Boulder Clay).		1987	667	116	240	133	0.09	2.8	22/01	0.01	14/01	0.2	0.06	0.01
		1988	590	103	203	113	0.08	4.0	23/01	0.00	30/08	0.2	0.03	0.01
		1989	538	94										
		1990	449	78										
030015	**Cringle Brook at Stoke Rochford** C.A: 50.5 km²	**76-85**	**729**		**206**		**0.33**	**2.1**	**27/04**	**0.03**	**07/09**	**0.7**	**0.28**	**0.09**
M.A: NRA-A	Level: 76m Local Number:								**1981**		**1976**			
F.A.R: N	B.F.I: .89 Sensitivity: 20.8	1986	749	103	203	99	0.32	1.6	16/04	0.09	10/11	0.6	0.29	0.10
Comment: Sharp-crested weir 2.74m wide in tunnel under A1. Weir drowns above about 0.25 m^3s^{-1}, but flows depend on position of weirs and sluices immediately downstream. Rating includes an allowance for drowning using assumed positions of downstream weirs and sluices. Major supply abstraction point downstream of station. Site moved upstream in 1987. # Rural catchment, underlain by Oolitic Limestone and Lias clay.		1987	735	101	219	106	0.35	1.5	07/04	0.12	21/08	0.6	0.36	0.13
		1988	640	88	175	85	0.28	1.7	24/01	0.08	28/11	0.6	0.16	0.08
		1989	615	84	107	52	0.17	0.8	18/12	0.06	27/10	0.4	0.13	0.06
		1990	510	70	112	54	0.18	1.1	07/02	**0.00**	**30/10**	0.5	0.10	0.03
030017	**Witham at Colsterworth** C.A: 51.3 km²	**78-85**	**684**		**180**		**0.29**	**11.5**	**25/06**	**0.02**	**22/10**	**0.6**	**0.18**	**0.04**
M.A: NRA-A	Level: 87m Local Number:								**1982**		**1979**			
F.A.R: R	B.F.I: .50 Sensitivity: 29.0	1986	701	102	172	96	0.28	6.2	10/01	0.04	06/11	0.6	0.16	0.05
Comment: Flat V weir 4.996m wide; theoretical calibration. Summer flows very heavily augmented by transfers from Rutland Water until June 1985, when direct Rutland/Saltersford pipeline opened. # Rural catchment underlain by limestone and Boulder Clay.		1987	699	102	169	94	0.27	6.2	07/04	0.04	20/08	0.6	0.20	0.04
		1988	597	87	122	68	0.20	8.1	24/01	**0.02**	**13/11**	0.5	0.06	0.02
		1989	613	90	87	48	0.14	4.4	14/12	**0.02**	**13/10**	0.3	0.05	0.02
		1990	499	73	72	40	0.12	5.5	07/02	**0.01**	**05/11**	0.3	0.03	0.02
031001	**Eye Brook at Eye Brook Reservoir** C.A: 60.1 km²	**37..85**	*657*		**113**		**0.21**	**33.9**	**09/03**	**0.00**	**30/10**	**0.5**	**0.04**	**0.03**
M.A: CDWC	Level: 55m Local Number:								**1975**		**1956**			
F.A.R: SR	B.F.I: .41 Sensitivity:	1986			288	255	0.55	12.0	10/01	0.07	07/11	1.4	0.26	0.13
Comment: Originally operated by Corby and District Water Co. Immediately downstream of reservoir built to supply water to Corby Steelworks. Crump weir with 10.89m crest replaced broad-crested weir with central rectangular notch in 1957. Small Crump weir for compensation flows. Records also kept of reservoir levels. Water from reservoir lost to catchment but licensed abstractions have been halved since 1980. # Mostly clay with some sand and gravel. Catchment is largely rural. Surface area of reservoir constitutes about 3% of catchment.		1987			320	283	0.61	19.2	07/04	0.07	19/05	1.4	0.34	0.13
		1988			276	244	0.52	25.4	24/01	0.05	11/05	1.1	0.06	
		1989			131	116	0.25			0.04	21/06	0.7	0.06	
		1990			128	113	0.24	3.3d	08/02	0.04	02/05	0.9		
031002	**Glen at Kates Brdg and King St** C.A: 341.9 km²	**60-85**	*622*		**114**		**1.23**	**23.6d**	**27/04**	**0.00**	**29/08**	**2.8**	**0.57**	**0.04**
M.A: NRA-A	Level: 6m Local Number: 31802								**1981**		**1976**			
F.A.R: GI	B.F.I: .59 Sensitivity: 68.0	1986	660	106	126	111	1.37	14.5d	10/01	0.10	04/11	2.7	0.91	0.12
Comment: 9.7m wide Flat V weir at Kates Bridge (replaced broad-crested weir in November 1971) plus standing-wave flume at King Street on the Greatford Cut. All recorded discharges within modular limits. The Glen is influent in upper reaches. Low flows reduced by irrigation abstractions and influenced by pumping from gravel works; GW abstraction beyond the catchment boundary also affects flows. # Gauges are at the point Glen becomes a Fenland river. Rural catchment, clay 59% and limestone 30% in headwaters.		1987	670	108	144	126	1.56	13.3d	16/10	0.19	21/08	3.2	1.19	0.24
		1988	598	96	121	106	1.31	21.6d	24/01	0.06	30/11	3.2	0.45	0.11
		1989	590	95	41	36	0.45	11.3	19/12	0.04	03/12	0.9	0.13	0.04
		1990	475	76	44	39	0.48	14.8	08/02	0.00	05/08	1.2	0.10	0.01
031004	**Welland at Tallington** C.A: 717.4 km²	**67-85**			**193**		**4.40**	**77.3d**	**10/03**	**0.44**	**28/10**	**9.4**	**2.57**	**0.79**
M.A: NRA-A	Level: m Local Number: 31804								**1975**		**1972**			
F.A.R: SPEI	B.F.I: .54 Sensitivity:	1986			213	110	4.86	39.3	11/01	1.33	31/08	10.2	3.11	1.81
Comment: Flows measured over broad-crested weir (total width 28.35m) on main river and two Crump profile weirs (both with 6.1m crest length) on West Deeping and Lolham Mill streams. Total flow is sum of three. Weir at Lolham drowns in summer due to weeds, and true flows estimated. Significant quantities of water abstracted upstream for transmission to Rutland Water with significant effect on low flows. # Gauging site where river becomes Fenland river. Rural catchment, largely clay, containing Rutland Water (controls 11%).		1987			227	118	5.18	42.9	08/04	1.44	29/06	10.1	3.71	1.68
		1988			198	103	4.49			1.01	01/10	10.7	2.49	1.23
		1989			124	64	2.83	32.8	20/12	0.68	07/09	4.9	1.58	0.97
		1990			101	52	2.30	33.1	09/02	0.68	24/08	4.1	1.32	0.81
031006	**Gwash at Belmesthorpe** C.A: 150.0 km²	**67-85**	**632**		**180**		**0.86**	**40.7**	**09/12**	**0.15**	**06/09**	**1.6**	**0.68**	**0.29**
M.A: NRA-A	Level: 24m Local Number:								**1969**		**1976**			
F.A.R: SRP	B.F.I: .79 Sensitivity: 23.0	1986	702	111	173	96	0.82	3.5	11/09	0.41	16/11	1.2	0.76	0.48
Comment: Full range Crump profile weir (crest length 8.5m) with no drowning problems. Site is 13km downstream of Rutland Water and flows have been very significantly influenced since 1975. # Geologically a mixed catchment, almost 50% clay and 40% limestone (but flow pattern is dominated by the reservoir). Land use is principally agricultural.		1987	685	108	174	97	0.83	3.6	12/01	0.40	15/08	1.2	0.82	0.45
		1988	623	99	154	86	0.73	3.0	08/09	0.28	08/10	1.2	0.58	0.31
		1989	641	101	89	49	0.42	1.2	23/05	0.25	26/11	0.6	0.41	0.28
		1990	483	76	103	57	0.49	1.4	27/02	0.21	12/12	1.0	0.40	0.22

		Period	Rainfall (mm)	% of pre-1986	Runoff (mm)	% of pre-1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
031007	**Welland at Barrowden** C.A: 411.6 km²	**68..85**	**544**		**184**		**2.40**	**107.8**	**10/03 1975**	**0.03**	**19/08 1972**	**5.3**	**0.95**	**0.22**
M.A: NRA-A	Level: 35m Local Number:													
F.A.R: SEI	B.F.I: .45 Sensitivity: 13.5	1986	718	111	228	124	2.98	40.0	11/01	0.38	27/07	6.6	1.77	0.44
Comment: Crump weir 3.04m wide measures flows to 4.2 m^3s^{-1}. Higher flows bypass weir via syphon and are measured downstream at Tixover (31005). Tixover is a rated section about 18m wide with rating depending on position of downstream sluices: assumed open in floods. Very high Tixover flows possibly influenced by overbank spillage upstream. Eye Brook reservoir has little influence, but low flows reduced by abstractions. # Mostly Boulder Clay overlying limestone. Rural catchment.		1987	687	107	239	130	3.12	42.3	08/04	0.38	21/08	6.8	1.99	0.48
		1988	639	99	189	103	2.46	58.9	25/01	0.28	19/09	6.0	0.75	0.32
		1989	687	107	150	82	1.96			0.19	04/09	4.5	0.79	0.22
		1990	490	76	106	58	1.38			0.13	13/08	3.4	0.38	0.16
031010	**Chater at Fosters Bridge** C.A: 68.9 km²	**68-85**	**662**		**240**		**0.52**	**20.8**	**15/08 1980**	**0.02**	**22/08 1976**	**1.2**	**0.27**	**0.06**
M.A: NRA-A	Level: 38m Local Number:													
F.A.R: N	B.F.I: .52 Sensitivity:	1986	717	108	266	111	0.58	9.9	10/01	0.11	16/10	1.2	0.37	0.12
Comment: Compound Crump profile weir with theoretical calibration. Central weir 1.054m wide, total width 6.077m. Not drowned but possibly bypassed in very extreme floods. No major abstractions or returns. # Rural catchment. Geology variable -includes clay (75%), limestone (13%) and sandstone (9%).		1987	680	103	286	119	0.62	10.1	07/04	0.11	07/08	1.3	0.40	0.13
		1988	629	95	235	98	0.51	16.0	24/01	0.09	01/10	1.2	0.22	0.10
		1989	657	99	178	74	0.39	7.7	15/12	0.07	07/09	0.7	0.21	0.11
		1990	482	73	132	55	0.29	6.4	28/02	0.05	16/10	0.6	0.11	0.06
031016	**North Brook at Empingham** C.A: 36.5 km²	**69-85**	**625**		**200**		**0.23**	**1.9**	**25/02 1977**	**0.00**	**18/08 1976**	**0.5**	**0.18**	**0.06**
M.A: NRA-A	Level: 50m Local Number:													
F.A.R: SI	B.F.I: .94 Sensitivity:	1986	690	110	232	116	0.27	0.7	10/01	0.10	26/10	0.5	0.23	0.11
Comment: Simple Crump profile weir, crest 2.36m broad. Rated up to 0.584m (2.503 m^3s^{-1}) only. Baseflow dominated flow regime. # Catchment contains two artificial lakes.		1987	676	108	280	140	0.32	1.0	07/04	0.12	26/09	0.5	0.31	0.14
		1988	602	96	252	126	0.29	1.1	04/02	0.10	26/11	0.5	0.21	0.11
		1989	626	100	132	66	0.15	0.5	23/05	0.09	01/11	0.3	0.13	0.09
		1990	480	77	161	81	0.19	0.6	28/02	0.07	06/11	0.4	0.14	0.07
031021	**Welland at Ashley** C.A: 250.7 km²	**70..85**	*643*		**162**		**1.29**	**39.6**	**02/02 1979**	**0.03**	**25/08 1976**	**3.3**	**0.53**	**0.14**
M.A: NRA-A	Level: 56m Local Number:													
F.A.R: REI	B.F.I: .41 Sensitivity: 32.4	1986	723	112	222	137	1.76			0.14	27/07	4.3	0.86	0.18
Comment: Crump profile weir in realigned channel beneath bridge. Weir has crest length of 6.97m and is theoretically calibrated to wing wall height with rated section above. Flows above 22 m^3s^{-1} - including all floods - influenced by bridge soffit and are therefore unreliable. Abstractions for irrigation and reservoir for maintenance of canal flow. # Largely rural with Market Harborough in headwaters: 85% Boulder Clay.		1987	693	108						0.16	04/08			
		1988	645	100	169	104	1.34			0.17	02/10	3.6	0.45	0.20
		1989	694	108	139	86	1.10			0.11	03/09	2.5	0.45	0.13
		1990	496	77	92	57	0.73			0.07	12/08	1.7	0.22	0.09
031023	**West Glen at Easton Wood** C.A: 4.4 km²	**72-85**	**652**		**165**		**0.02**	**7.8**	**14/08 1980**	**0.00**	**14/11 1985**	**0.1**	**0.00**	
M.A: NRA-A	Level: 81m Local Number:													
F.A.R: N	B.F.I: .14 Sensitivity:	1986	703	108	179	108	0.02	1.9	16/04	0.00	05/06	0.1	0.00	
Comment: Flat V weir with crest length of 8.05m theoretically rated to 10.7 m^3s^{-1}. Installed as part of study into recharge of Lincolnshire Limestone. No abstractions or returns. # Rural catchment entirely on Boulder Clay (therefore somewhat unusual in a predominantly limestone area): flows disappear into the limestone downstream of gauging station.		1987	700	107	210	127	0.03	1.9	20/10	0.00	04/05	0.1	0.01	
		1988	604	93	145	88	0.02	2.8	23/01	0.00	17/06	0.1	0.00	
		1989	605	93	109	66	0.02	1.0	14/12	0.00	07/01	0.0		
		1990	502	77	69	42	0.01	2.3	07/02	0.00	25/03	0.0		
031024	**Holywell Brook at Holywell** C.A: 22.3 km²	**71-85**	*611*		**160**		**0.11**	**1.7**	**09/02 1974**	**0.00**	**29/11 1976**	**0.2**	**0.09**	**0.01**
M.A: NRA-A	Level: 27m Local Number:													
F.A.R: G	B.F.I: .94 Sensitivity:	1986			211	132	0.15	0.4	06/05	0.06	08/11	0.2	0.15	0.07
Comment: Crump weir, 2.498 m wide. Calibrated up to around 1.8 cumecs only. Theoretical rating; very limited confidence in high flows. No major surface abstractions or returns but runoff may be affected by groundwater abstractions. Baseflow dominated flow regime. # A rural catchment developed mainly on Jurassic limestone with some Drift cover.		1987			234	146	0.17	0.5	23/11	0.07	31/08	0.2	0.17	0.08
		1988			197	123	0.14	0.5	04/02	0.02	31/12	0.3	0.10	0.03
		1989			72	45	0.05					0.1	0.03	0.01
		1990	479	78										
031025	**Gwash South Arm at Manton** C.A: 24.5 km²	**78-85**	**695**		**273**		**0.21**	**22.5**	**02/06 1981**	**0.00**	**01/09 1984**	**0.5**	**0.08**	**0.01**
M.A: NRA-A	Level: 84m Local Number:													
F.A.R: I	B.F.I: .28 Sensitivity: 50.0	1986	724	104	289	106	0.22	11.2	10/01	0.01	27/07	0.6	0.08	0.01
Comment: Flat V weir (crest length 5m) measuring inflows to Rutland Water. Weir is theoretically calibrated and never drowns, although is bypassed at high flows. No abstractions, small returns. # Rural catchment on Boulder Clay.		1987	720	104	297	109	0.23	12.4	07/04	0.01	07/08	0.5	0.10	0.02
		1988	652	94	225	82	0.17	14.3	23/01	0.01	25/09	0.5	0.04	0.01
		1989	692	100	178	65	0.14	7.0	14/12	0.00	24/08	0.3	0.03	0.01
		1990	513	74	106	39	0.08	3.8	07/02	**0.00**	**30/08**	0.2	0.01	>0.00
031026	**Egleton Brook at Egleton** C.A: 2.5 km²	**78-85**	**696**		**240**		**0.02**	**1.3**	**14/08 1980**	**0.00**	**17/10 1984**	**0.0**	**0.01**	**>0.00**
M.A: NRA-A	Level: 84m Local Number:													
F.A.R: N	B.F.I: .34 Sensitivity:	1986	720	103	248	103	0.02	0.8	10/01	0.00	10/07	0.1	0.01	
Comment: Flat V weir 2m wide measuring inflows to Rutland Water. Theoretically rated, but could drown at high flows due to sharp bend downstream and weed growth. No abstractions or returns - sensibly natural regime. # Rural catchment on Boulder Clay.		1987	711	102	280	117	0.02	0.7	07/04	0.00	08/07	0.0	0.01	
		1988	634	91	193	80	0.02	0.8	23/01	0.00	07/07	0.0	0.00	
		1989	661	95	134	56	0.01	0.4	18/12	0.00	19/08	0.0	0.00	
		1990	499	72	101	42	0.01	0.3	07/02	0.00	14/07	0.0	0.00	
032001	**Nene at Orton** C.A: 1634.3 km²	**39..85**	*630*		**178**		**9.25**	**382.3**	**18/03 1947**	**0.08**	**29/07 1948**	**24.4**	**4.60**	**1.08**
M.A: NRA-A	Level: 3m Local Number:													
F.A.R: SPEI	B.F.I: .52 Sensitivity:	1986	701	111	237	133	12.31	62.4	21/05	2.00	11/07	28.5	9.14	3.11
Comment: Series of sluices, weirs and lock. Ratings revised and historical data altered in 1975 and 1983. Ultrasonic gauge tested in 1976 but abandoned. Flows above 17 m^3s^{-1} measured at Wansford (32010) 12km upstream and corrected for smaller area. Wansford is a rated section, ratings and data were revised in 1981. Water abstracted at Wansford and sent to Rutland Water, with significant effect on low flows. # Lowest gauging point on Nene. Mostly clay (72%) and rural, but includes some towns and several small reservoirs.		1987	657	104	237	133	12.29	65.8	21/10	3.19	13/09	25.6	9.06	4.01
		1988	628	100						2.69	29/08			
		1989	641	102						1.78	23-08			
		1990	466	74										
032002	**Willow Brook at Fotheringhay** C.A: 89.6 km²	**38-85**	**611**		**273**		**0.78**	**15.0**	**17/03 1947**	**0.06**	**09/08 1944**	**1.3**	**0.63**	**0.23**
M.A: NRA-A	Level: 15m Local Number:													
F.A.R: SEI	B.F.I: .73 Sensitivity: 8.2	1986	694	114	331	121	0.94	7.1	10/01	0.43	05/10	1.6	0.77	0.47
Comment: Flume (1.676m wide throat) with rating based on model tests. Bypassing occurs at 6.5 m^3s^{-1} and is not allowed for. Lost 4.66 sq. km. of catchment to Harpers Brook in 1963. Low flows significantly influenced by extractions for Corby steelworks (including imports from Eye Brook) until 1980. Three small reservoirs continue to have minor influence on low flows. # Underlain by clay (75%) in headwaters and limestone (16.5%). Mostly rural but includes Corby.		1987	646	106	329	121	0.94	7.2	07/04	0.41	28/09	1.5	0.78	0.47
		1988	630	103	324	119	0.92	7.2	24/01	0.40	08/10	1.6	0.72	0.45
		1989	623	102	251	92	0.71	5.3	14/12	0.34	28/07	1.1	0.57	0.38
		1990	456	75	205	75	0.58	4.9	08/02	0.30	15/07	0.9	0.48	0.32

		Period	Rainfall (mm)	% of pre-1986	Runoff (mm)	% of pre-1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
032003	**Harpers Brook at Old Mill Bridge** C.A: 74.3 km^2	**38..85**	**628**		**174**		**0.41**	**22.0**	**26/04 1981**	**0.02**	**26/08 1976**	**0.9**	**0.19**	**0.07**
M.A: NRA-A	Level: 30m Local Number:													
F.A.R: N	B.F.I: .49 Sensitivity: 18.3	1986	690	110	237	136	0.56	14.8	10/01	0.09	15/10	1.3	0.29	0.10
Comment: Compound Crump profile weir replaced rated section in 1964. Central weir has 1.219m crest, total width is 3.657m. Calibration confirmed to 4.8 m^3s^{-1}, but weir drowns at about 7 m^3s^{-1} and is bypassed in extreme floods. Catchment area increased by 8% after diversion from Willow Brook in 1963. # Low lying impervious catchment (clay 90%), predominantly agricultural, but with some ironstone mines working until early 1980s.		1987	655	104	228	131	0.54	18.2	07/04	0.09	20/08	1.1	0.27	0.10
		1988	632	101	181	104	0.42	8.0d	/01	0.10	14/11	0.9	0.19	0.11
		1989	644	103	148	85	0.35	7.1	18/12	0.08	07/09	0.7	0.16	0.08
		1990	476	76	97	56	0.23	6.4	03/02	0.05	30/08	0.4	0.10	0.05
032004	**Ise Brook at Harrowden Old Mill** C.A: 194.0 km^2	**43..85**	**635**		**222**		**1.36**	**28.4**	**17/03 1947**	**0.05**	**18/08 1944**	**3.0**	**0.74**	**0.19**
M.A: NRA-A	Level: 45m Local Number:													
F.A.R: SI	B.F.I: .55 Sensitivity: 58.3	1986	722	114	269	121	1.65	12.8	11/01	0.31	16/07	3.5	1.15	0.36
Comment: Flume with low flow notch and side weir to 1965, compound Crump profile weir to April 1976, and theoretically-rated Flat V weir with 5.94m crest since. Crump weir modular to 15.6 m^3s^{-1}, but bypassed at 14.2m. Flat V also bypassed. Two small storage reservoirs with minor influence on low flows. # Underlain by clay (59%) and sandstone (24%), mostly rural but includes Kettering.		1987	670	106	250	113	1.54	14.9	08/04	0.27	20/08	3.1	1.16	0.32
		1988	643	101	218	98	1.33	17.5	24/01	0.25	02/10	2.9	0.67	0.32
		1989	670	106	188	85	1.16	11.6	18/12	0.24	08/09	2.4	0.64	0.28
		1990	476	75	128	58	0.79	10.9	08/02	0.12	06/08	1.9	0.34	0.15
032006	**Nene/Kislingbury at Upton** C.A: 223.0 km^2	**39-85**	*678*		**198**		**1.40**	**38.2d**	**17/03 1947**	**0.06**	**28/09 1944**	**3.1**	**0.76**	**0.25**
M.A: NRA-A	Level: 62m Local Number: 32806													
F.A.R: E	B.F.I: .57 Sensitivity: 20.5	1986	739	109	245	124	1.74	19.3d	10/01	0.40	13/10	3.6	1.29	0.44
Comment: Main channel flow measured in 3.2m wide standing wave flume under mill. Flow in bypass channel measured at Crump profile weir (crest 6.12m) since 1969 and flows summed to produce total. Before 1969 flows through bypass controlled by broad-crested weir with no recorder, and total flows based on average relationship between levels in main channel and bypass. Very high flows bypass both channels. No major abstractions but several sewage work returns. # Mostly clay (72%) and predominantly rural.		1987	675	100	238	120	1.69	15.3d	07/04	0.41	02/10	3.0	1.27	0.54
		1988	659	97	226	114	1.60	17.2d	24/01	0.41	30/10	3.4	0.87	0.48
		1989	684	101	178	90	1.26	16.9	18/12	0.31	08/09	2.6	0.76	0.34
		1990	546	81	150	76	1.06	15.9	07/02	0.22	09/08	2.2	0.51	0.25
032007	**Nene Brampton at St Andrews** C.A: 232.8 km^2	**39-85**	*671*		**162**		**1.20**	**30.0**	**15/08 1980**	**0.01**	**17/08 1944**	**2.6**	**0.60**	**0.20**
M.A: NRA-A	Level: 59m Local Number: 32807													
F.A.R: SPEI	B.F.I: .56 Sensitivity: 25.8	1986	732	109	243	150	1.80	15.7d	10/01	0.36	16/07	3.8	1.30	0.41
Comment: Main channel flow measured in 2.743m wide standing-wave flume in mill race. Flow in bypass channel measured at 9.11m wide broad-crested weir and flows summed to produce total. No recorder on bypass before 1969, and total flows estimated using average relationship between levels in flume and bypass. Bypassing of both structures commences at about 17 m^3s^{-1}. Abstraction from three water supply reservoirs reduce low flows. # Mostly clay (76%) and predominantly rural.		1987	672	100	230	142	1.70	15.3d	07/04	0.48	29/09	3.1	1.31	0.52
		1988	644	96	197	122	1.45	18.1d	24/01	0.37	01/10	3.0	0.81	0.43
		1989	674	100						0.26	18/10			
		1990	486	72										
032008	**Nene/Kislingbury at Dodford** C.A: 107.0 km^2	**45..85**	**673**		**176**		**0.60**	**11.6**	**01/05 1983**	**0.04**	**11/09 1949**	**1.3**	**0.32**	**0.11**
M.A: NRA-A	Level: 79m Local Number:													
F.A.R: E	B.F.I: .57 Sensitivity: 20.8	1986	753	112	236	134	0.80	10.7	10/01	0.17	17/07	1.7	0.57	0.19
Comment: Crump profile weir with 2.667m crest replaced broad-crested weir with low flow notch in 1967. Weir theoretically calibrated, but bypassing begins at 7 m^3s^{-1} and the weir drowns in high flows. Low flows influenced by returns from sewage treatment works. # Mostly clay (73%) and predominantly rural.		1987	683	101	227	129	0.77	10.7	07/04	0.20	26/09	1.4	0.56	0.23
		1988	666	99	218	124	0.74	11.6	24/01	0.19	07/10	1.5	0.39	0.21
		1989	680	101	171	97	0.58	8.0	18/12	0.15	14/09	1.2	0.32	0.16
		1990	543	81	136	77	0.46	8.6	07/02	0.11	09/10	0.9	0.22	0.12
033002	**Bedford Ouse at Bedford** C.A: 1460.0 km^2	**33-85**	*651*		**214**		**9.90**	**278.1d**	**15/03 1947**	**0.01**	**31/08 1934**	**26.1**	**4.44**	**0.90**
M.A: NRA-A	Level: 25m Local Number:													
F.A.R: SPGEI	B.F.I: .51 Sensitivity:	1986	704	108	281	131	13.02	86.4	12/01	2.15	30/07	32.1	8.54	2.54
Comment: 3 broad-crested weirs, 30m, 20m and 12m wide supplemented by 3 vertical sluice gates which are either fully open or shut. High flow rating confirmed by current meter measurements. Records before 1959 based on daily gauge board readings and gate openings. (Improved flow record, from 1972, d/s at 33039). Significant surface and groundwater abstractions in catchment for PWS, Milton Keynes' effluent now significant. # Geology - predominantly clay. Land use - agricultural with substantial urban development over last 15 years.		1987	678	104	301	141	13.92	88.4	23/10	2.80	01/09	31.5	8.77	3.22
		1988	634	97	259	121	11.94	125.0	26/01	3.20	25/06	25.4	6.36	3.36
		1989	644	99	226	106	10.45	80.7	23/12	1.60	06/09	26.7	4.96	2.19
		1990	486	75	172	80	7.98	102.0	05/02	1.10	07/08	18.7	3.15	1.39
033005	**Bedford Ouse at Thornborough Mill** C.A: 388.5 km^2	**51-85**	*662*		**208**		**2.56**	**38.8d**	**14/12 1979**	**0.00**	**26/08 1976**	**6.1**	**1.24**	**0.24**
M.A: NRA-A	Level: 71m Local Number:													
F.A.R: SPGEI	B.F.I: .50 Sensitivity:	1986	721	109	251	121	3.10	33.6d	10/01	0.39	29/09	7.7	1.89	0.43
Comment: Flat V Crump profile weir 10.2m wide and two sluice gates 3.6m broad. Prior to 1976 the weir was broad-crested with centre V notch. A bypass channel exists, but operation of the gates has ensured the highest flows have been recorded. # The catchment is flat and lies mainly on the Great Oolite. One large tributary drains an area of Oxford Clay. There is a water supply reservoir and a number of ornamental lakes in the catchment.		1987	657	99	240	115	2.96	25.3d	16/10	0.34	28/09	6.4	1.97	0.42
		1988	630	95	214	103	2.63	35.9d	24/01	0.44	19/09	6.4	1.13	0.50
		1989	644	97	181	87	2.23	28.8	26/02	0.19	10/09	5.3	0.80	0.24
		1990	504	76	144	69	1.77	28.4d	03/02	0.08	09/09	4.4	0.43	0.12
033006	**Wissey at Northwold** C.A: 274.5 km^2	**56-85**	**653**		**218**		**1.90**	**13.3**	**20/11 1974**	**0.20**	**27/08 1976**	**3.5**	**1.56**	**0.58**
M.A: NRA-A	Level: 5m Local Number:													
F.A.R: PGEI	B.F.I: .81 Sensitivity: 9.2	1986	669	102	172	79	1.50	6.0	31/12	0.47	26/09	2.7	1.37	0.49
Comment: Rectangular critical depth flume, 4.9m wide. In March 1981 some flow diverted to a new side channel just u/s of the station - about 10% of runoff not now gauged at low flows; pre- and post-1981 flows not entirely consistent. Drowning common - flows adjusted. Limited net impact of abstractions and discharges but spray irrigation increasing (substantial proportion from groundwater). # Geology - Chalk overlain by Boulder Clay (which is permeable in parts). Low population density. Largely arable, extensive heathland also.		1987	779	119	262	120	2.28	6.7d	28/08	1.14	14/07	3.3	2.10	1.24
		1988	683	105	259	119	2.25	7.7	31/01	0.70	20/09	4.4	1.75	0.76
		1989	558	85	128	59	1.12	5.3	21/12	0.30	10/09	2.1	0.93	0.33
		1990	532	81	116	53	1.01	6.6	04/02	0.20	07/09	2.0	0.66	0.23
033007	**Nar at Marham** C.A: 153.3 km^2	**53-85**	*684*		**246**		**1.20**	**7.8**	**12/02 1977**	**0.14**	**27/08 1976**	**2.2**	**1.01**	**0.53**
M.A: NRA-A	Level: 5m Local Number:													
F.A.R: PGEI	B.F.I: .91 Sensitivity: 12.0	1986	671	98	218	89	1.06	3.0	31/12	0.53	17/10	1.5	1.05	0.60
Comment: Critical depth flume, 7.16m wide. Prior to April 1982, flume (7.47m wide) contained low flow notch. Weed growth can be a problem during summer if not cut regularly. Surface water abstraction for PWS immediately upstream of station. # Geology - Chalk catchment overlain by clay in upper reaches. Land use - agricultural.		1987	820	120	318	129	1.55	5.0	12/10	0.79	14/07	2.1	1.42	0.94
		1988	688	101	321	130	1.56	5.4	30/01	0.63	01/11	2.7	1.15	0.73
		1989	594	87	144	59	0.70	2.4	20/12	0.32	24/08	1.1	0.66	0.35
		1990	557	81	117	48	0.57	3.1	02/03	0.17	05/09	1.0	0.46	0.22
033009	**Bedford Ouse at Harrold Mill** C.A: 1320.0 km^2	**55..85**	*653*		**225**		**9.40**	**143.0**	**29/12 1979**	**0.10**	**05/10 1959**	**22.9**	**4.81**	**1.49**
M.A: NRA-A	Level: 41m Local Number:													
F.A.R: SPGEI	B.F.I: .52 Sensitivity: 6.7	1986	707	108	259	115	10.84	92.4	11/01	1.93	29/07	25.5	7.05	2.39
Comment: Compound structure comprising a compound broad-crested weir plus two side spilling broad-crested weirs upstream. Not constructed for flow measurement. Rated by formulae. High flows estimated. Major abstractions in catchment. # Geology - Limestone overlain by Boulder Clay. Land use - mainly agricultural with substantial urban development over last 15 years (Milton Keynes).		1987	677	104	276	123	11.57	83.5	22/10	1.96	31/08	23.8	7.67	2.74
		1988	638	98	232	103	9.68	118.0	25/01	2.46	20/09	20.5	5.30	2.77
		1989	649	99										
		1990	495	76										
033011	**Little Ouse at County Bridge Euston** C.A: 128.7 km^2	**48..85**	*581*		**100**		**0.41**	**11.0d**	**10/03 1952**	**0.00**	**29/08 1976**	**0.8**	**0.30**	**0.10**
M.A: NRA-A	Level: 13m Local Number:													
F.A.R: GEI	B.F.I: .73 Sensitivity: 12.2	1986	651	112	98	98	0.40	2.8	30/12	0.12	17/08	0.7	0.37	0.15
Comment: Compound weir with triangular profile centre section, 3.4m broad; broad-crested flanks in trapezoidal channel - 9m. Groundwater abstractions for PWS and spray irrigation. # Geology - predominantly Chalk with some clay. Land use - agricultural.		1987	728	125	194	194	0.79	6.4d	12/10	0.26	14/07	1.2	0.56	0.31
		1988	645	111	180	180	0.73	5.5d	30/01	0.23	19/09	1.3	0.46	0.25
		1989	529	91	80	80	0.33	2.9	16/03	0.08	23/08	0.6	0.29	0.10
		1990	504	87	53	53	0.22	3.2	03/02	0.01	12/09	0.5	0.14	0.02

	Period	Rainfall (mm)	% of pre-1986	Runoff (mm)	% of pre-1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
033012 **Kym at Meagre Farm** C.A: 137.5 km²	**60-85**	*606*		**144**		**0.63**	**34.7**	**21/11 1974**	**0.00**	**30/08 1976**	**1.5**	**0.11**	**0.02**
M.A: NRA-A Level: 17m Local Number:													
F.A.R: EI B.F.I: .26 Sensitivity: 66.0	1986	639	105	152	106	0.66	16.8	10/01	0.00	30/06	1.9	0.17	0.02
Comment: Compound weir with triangular profile centre section and broad-crested flanks in a trapezoidal channel, 8.5m wide; centre section 3m wide. Rating modified to correct for drowning. Surface water abstractions for agriculture. # Geology - predominately clay catchment - very flashy by Anglian standard. Land use - agricultural.	1987	669	110	215	149	0.94	23.3	20/10	0.04	13/07	2.1	0.29	0.05
	1988	614	101	161	112	0.70	20.7	24/01	0.03	30/08	1.5	0.17	0.05
	1989	594	98	128	89	0.56	16.2	21/12	0.01	04/08	1.3	0.08	0.02
	1990	422	70	76	53	0.33	20.1	03/02	0.02	22/07	0.7	0.04	0.02
033013 **Sapiston at Rectory Bridge** C.A: 205.9 km²	**49..85**	*600*		**102**		**0.66**	**10.9**	**03/02 1979**	**0.01**	**14/08 1949**	**1.4**	**0.44**	**0.12**
M.A: NRA-A Level: 16m Local Number:													
F.A.R: GEI B.F.I: .64 Sensitivity: 40.4	1986	646	108	96	94	0.63	3.9	30/12	0.17	21/08	1.2	0.51	0.21
Comment: Rectangular thin-plate weir, 8.8m broad, supressed end contractions. Minor groundwater abstractions for public water supply and agriculture. # Geology - predominately Chalk with Boulder Clay cover. Land use - agricultural.	1987	729	122	175	172	1.14	**12.6**	**12/10**	0.29	29/05	1.9	0.71	0.36
	1988	641	107	170	167	1.11	11.0	31/01	0.30	01/10	2.1	0.65	0.33
	1989	526	88	76	75	0.49	5.3	17/03	0.10	22/11	1.0	0.33	0.12
	1990	484	81	49	48	0.32	5.4	04/02	0.02	23/07	0.7	0.17	0.04
033014 **Lark at Temple** C.A: 272.0 km²	**60-85**	**608**		**150**		**1.30**	**22.1**	**17/09 1968**	**0.28**	**23/08 1976**	**2.2**	**1.02**	**0.53**
M.A: NRA-A Level: 9m Local Number:													
F.A.R: GEI B.F.I: .78 Sensitivity: 6.8	1986	656	108	133	89	1.15	7.3	30/12	0.49	11/10	1.7	1.04	0.62
Comment: Compound broad-crested weir with rectangular cross-section, 5.8m broad, central notch 3m broad. Full range rating confirmed by current meter measurements. Flows affected by milling upstream of gauging station. Significant groundwater abstractions in catchment for PWS, industry and agriculture. # Geology - predominantly Chalk - 70% overlain with Boulder Clay. Land use - agricultural.	1987	738	121	214	143	1.85	9.6	12/10	0.97	20/08	2.8	1.49	1.06
	1988	644	106	223	149	1.92	14.2	30/01	0.82	19/09	3.0	1.41	0.93
	1989	525	86	122	81	1.05	6.2d	17/03	0.37	20/08	1.8	0.88	0.53
	1990	458	75	86	57	0.75	8.8	04/02	**0.28**	**14/08**	1.2	0.60	0.33
033015 **Ouzel at Willen** C.A: 277.1 km²	**62-85**	**650**		**225**		**1.97**	**34.1**	**26/12 1985**	**0.12**	**25/08 1976**	**4.3**	**1.13**	**0.45**
M.A: NRA-A Level: 57m Local Number:													
F.A.R: GEI B.F.I: .54 Sensitivity: 8.9	1986	713	110	274	122	2.41	19.9	10/01	0.57	16/08	5.5	1.63	0.63
Comment: 10m wide Flat V Crump profile weir replaced compound broad-crested weir, 9.2m broad, in 1977 when river realigned. Radial lifting gate immediately u/s of weir diverts very high flows to adjacent balancing reservoir which empties d/s of weir. Annual floods do not bypass. # The river flows across the Greensand and Oxford Clay. Milton Keynes and Leighton Buzzard are the only towns in an otherwise rural catchment.	1987	707	109	287	128	2.52	32.3	21/10	0.64	09/09	4.9	1.65	0.75
	1988	649	100										
	1989	650	100	206	92	1.81	17.6d	27/02	0.43	06/07	4.1	0.93	0.48
	1990	502	77										
033018 **Tove at Cappenham Bridge** C.A: 138.1 km²	**62..85**	**670**		**241**		**1.05**	**34.0**	**27/06 1973**	**0.07**	**26/08 1976**	**2.3**	**0.56**	**0.19**
M.A: NRA-A Level: 81m Local Number:													
F.A.R: EI B.F.I: .53 Sensitivity: 12.0	1986	740	110	275	114	1.20	22.5	10/01	0.25	16/10	2.7	0.77	0.28
Comment: Compound broad-crested trapezoidal weir, 7.6m broad; central notch, 2.7m broad. Theoretical rating since Aug 1970. Prior to that data hydraulic model derived rating. The weir is subject to drowning at high flows. # Geology - predominantly Chalk overlain with Boulder Clay. Land use - agricultural.	1987	675	101	265	110	1.16	19.6	07/04	0.24	29/09	2.2	0.80	0.28
	1988	661	99	229	95	1.00	16.2	20/03	0.26	20/09	2.4	0.47	0.27
	1989	687	103										
	1990	551	82	154	64	0.67	15.8	03/02	0.11	04/10	1.5	0.29	0.15
033019 **Thet at Melford Bridge** C.A: 316.0 km²	**62..85**	**615**		**181**		**1.81**	**15.3**	**29/04 1981**	**0.10**	**25/08 1976**	**3.6**	**1.30**	**0.47**
M.A: NRA-A Level: 11m Local Number:													
F.A.R: GEI B.F.I: .78 Sensitivity: 14.2	1986	657	107	182	101	1.83	6.6	11/01	0.43	22/07	3.5	1.65	0.55
Comment: Triangular profile weir, 6.2m broad. Theoretical rating modified in April 1968. Weir subject to drowning during summer due to weed growth downstream. # Predominantly Chalk catchment; approx 70% overlain by Boulder Clay. Land use - arable.	1987	746	121	295	163	2.95	13.3	29/08	0.91	14/07	4.7	2.52	1.27
	1988	685	111	276	152	2.76	12.5	01/02	0.82	14/09	5.2	2.01	0.86
	1989	541	88	145	80	1.45	5.6	03/03	0.32	25/08	2.8	1.00	0.37
	1990	530	86	117	65	1.17	6.3	04/02	0.32	16/07	2.1	0.78	0.53
033020 **Alconbury Brook at Brampton** C.A: 201.5 km²	**63..85**	**593**		**123**		**0.78**	**36.6**	**20/12 1976**	**0.00**	**23/08 1976**	**2.1**	**0.14**	**0.01**
M.A: NRA-A Level: 9m Local Number:													
F.A.R: EI B.F.I: .29 Sensitivity: 74.1	1986	630	106	139	113	0.89	14.2	21/05	0.02	28/09	2.5	0.28	0.02
Comment: Broad-crested weir (in trapezoidal section) with central low flow notch (Crump profile). Theoretical rating but hydraulic model calibration for flanks prior to April 1978. Drowns out at approx. 1m stage; spills at 2m. Rating modified by current meter measurement to correct for drowning. High flows impeded by upstream and downstream bridges. # Predominantly impervious catchment. Land use; mainly arable.	1987	646	109	178	145	1.14	14.8	21/10	0.04	01/06	2.9	0.44	0.06
	1988	607	102	145	118	0.92	14.0	24/01	0.04	15/08	2.4	0.28	0.06
	1989	567	96	92	75	0.59	11.0	20/12	0.00	20/07	1.7	0.10	
	1990	411	69	53	43	0.34	10.6d	03/02	0.00	13/07	0.9	0.04	
033021 **Rhee at Burnt Mill** C.A: 303.0 km²	**62-85**	**568**		**130**		**1.25**	**19.4**	**29/03 1979**	**0.05**	**22/08 1976**	**2.5**	**0.83**	**0.27**
M.A: NRA-A Level: 9m Local Number:													
F.A.R: GEI B.F.I: .74 Sensitivity: 19.4	1986	624	110	105	81	1.01	3.5	03/02	0.35	03/10	1.7	0.88	0.50
Comment: Trapezoidal cross-section weir with triangular profile crest, 6.1m broad. Weir drowns out at high flows; rating modified by current meter measurements to correct for drowning. Weir also subject to drowning during summer due to weed growth downstream. Substantial groundwater abstractions for PWS. Augmentation from groundwater sources to regulate river flow. # Predominantly Chalk catchment - approx 30% overlain with Boulder Clay. Land use arable.	1987	638	112	157	121	1.51	9.7	17/10	0.49	13/07	2.6	1.04	0.56
	1988	614	108	171	132	1.64	11.5	30/01	0.51	29/08	3.0	1.03	0.54
	1989	544	96	95	73	0.92	6.4	27/02	0.28	23/08	1.8	0.70	0.31
	1990	426	75										
033022 **Ivel at Blunham** C.A: 541.3 km²	**59..85**	*590*		**175**		**3.01**	**32.6**	**21/12 1960**	**0.41**	**19/08 1976**	**5.2**	**2.22**	**1.09**
M.A: NRA-A Level: 19m Local Number:													
F.A.R: GEI B.F.I: .73 Sensitivity: 8.6	1986	640	108	169	97	2.90	12.0	20/05	1.23	02/08	5.0	2.52	1.40
Comment: Crump profile weir 7.31m wide. Bypassing not thought to have occurred. Drowning occurs at 0.91m (theoretical rating includes correction for drowning). Hydrograph reflects u/s mill operation. Effluents from STW has substantial effect on low flows. Many surface water abstractions for spray irrigation. GW abstractions for PWS. # The Ivel rises near Hitchin and Baldock and flows north across the Greensand, Chalk and Gault Clays to meet the Great Ouse south of Bedford. Predominantly rural land use.	1987	679	115	217	124	3.72	24.8d	21/10	1.50	11/07	5.7	2.80	1.74
	1988	622	105	224	128	3.83	23.7d	29/01	1.70	16/08	6.6	2.94	1.80
	1989	579	98	158	90	2.72	19.4	21/12	1.11	22/08	5.1	1.94	1.24
	1990	458	78	142	81	2.44	23.1d	04/02	0.85	12/08	4.3	1.58	1.01
033023 **Lea Brook at Beck Bridge** C.A: 101.8 km²	**62-85**	**550**		**77**		**0.25**	**5.3**	**07/02 1984**	**0.00**	**26/10 1964**	**0.6**	**0.15**	**0.02**
M.A: NRA-A Level: 4m Local Number:													
F.A.R: GEI B.F.I: .71 Sensitivity: 90.1	1986	634	115	43	56	0.14	2.3	30/12	0.02	21/07	0.3	0.10	0.02
Comment: Crump profile weir 4m wide under an arched bridge. Soffit of bridge 2m above crest. All but the very highest flows are contained. The low flow calibration has been confirmed by current metering. There is some doubt about the high flow calibration owing to two large concrete blocks which spoil the entry condition. Some groundwater abstraction for water supply. # A rural Chalk catchment with approximately 70% Boulder Clay cover.	1987	721	131	142	184	0.46	5.0	11/10	0.13	20/08	0.8	0.29	0.17
	1988	628	114	145	188	0.47	5.3	30/01	0.08	18/11	0.9	0.26	0.08
	1989	512	93	46	60	0.15	2.9	16/03	0.01	27/10	0.3	0.05	0.02
	1990	450	82	30	39	0.10	4.9	03/02	0.01	13/10	0.2	0.04	0.02
033024 **Cam at Dernford** C.A: 198.0 km²	**49..85**	*595*		**157**		**0.98**	**14.1**	**02/02 1979**	**0.03**	**04/07 1949**	**1.6**	**0.76**	**0.36**
M.A: NRA-A Level: 15m Local Number:													
F.A.R: GEI B.F.I: .77 Sensitivity: 14.6	1986	667	112	141	90	0.89	4.8	25/12	0.44	09/10	1.3	0.81	0.48
Comment: Rectangular thin-plate weir, 5.8m broad. Bridge pier may affect approach velocity at high flows. Weir subject to drowning. Five groundwater abstractions for PWS. Flow regime affected by industrial effluent deriving from groundwater within the catchment. # Predominantly pervious catchment (60%). Land use - arable.	1987	736	124	238	152	1.49	12.7	11/10	0.65	20/08	2.2	1.09	0.78
	1988	621	104	220	140	1.38	13.3	30/01	0.50	27/08	2.3	0.98	0.61
	1989	552	93	123	78	0.77	8.9	17/03	0.33	25/08	1.2	0.63	0.36
	1990	452	76	108	69	0.68	10.9	04/02	0.23	06/12	1.2	0.44	0.27

		Period	Rainfall (mm)	% of pre-1986	Runoff (mm)	% of pre-1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
033026	**Bedford Ouse at Offord** C.A: 2570.0 km²	**70-85**	*607*		**169**		**13.78**	**148.4d**	**22/11 1974**	**0.51**	**27/08 1976**	**33.8**	**6.35**	**1.93**
M.A: NRA-A	Level: 11m Local Number:													
F.A.R: SPGEI	B.F.I: .48 Sensitivity: 5.7	1986	672	111	189	112	15.44	89.7d	10/01	1.50	10/10	40.0	10.07	2.43
Comment: Complex of automatic radial tilting weir, 15.2m broad; triangular profile weir, 14.8m broad; compound broad-crested weir, 22.7m broad. Navigation lock opened at flows above 40 m^3s^{-1}. Abstraction 2km upstream for Grafham Water reservoir (approx. 2 m^3s^{-1}). Substantial surface water abstractions for PWS, industry and agriculture. Significant groundwater abstractions. # Predominantly agricultural with substantial urban areas (Milton Keynes). Geology - predominantly Chalk.		1987	676	111	227	134	18.46	136.0d	21/10	2.20	20/08	41.6	11.69	3.71
		1988	626	103	193	114	15.65	112.0d	29/01	2.40	30/08	34.1	8.38	3.15
		1989	616	101	152	90	12.42	108.0d	21/12	1.60	31/08	36.2	3.66	2.14
		1990	464	76	120	71	9.77	128.0d	04/02	1.40?	12/08	24.3	2.92	1.78
033027	**Rhee at Wimpole** C.A: 119.1 km²	**65-85**	**575**		**140**		**0.53**	**8.9**	**06/05 1978**	**0.00**	**27/08 1976**	**1.2**	**0.30**	**0.07**
M.A: NRA-A	Level: 18m Local Number:													
F.A.R: GEI	B.F.I: .65 Sensitivity: 30.0	1986	616	107	109	78	0.41	2.1	02/02	0.09	06/10	0.8	0.31	0.15
Comment: Trapezoidal critical depth flume, 6.6m broad; horizontal crest 3.8m. Subject to drowning at peak levels; correction incorporated into theoretical rating. Spills occasionally - high flows impeded by bridge abutments 20m downstream. Some surface water and groundwater abstractions in catchment. # Predominantly Chalk catchment with approx. 20% Boulder Clay cover. Agriculture is the dominant land use.		1987	636	111	169	121	0.64	6.4	16/10	0.14	27/09	1.3	0.37	0.16
		1988	624	109	201	144	0.76	8.8	30/01	0.16	16/11	1.5	0.41	0.18
		1989	560	97	111	79	0.42	3.5	21/12	0.09	02/12	0.9	0.29	0.10
		1990	430	75	90	64	0.34	5.5d	03/02	0.05	30/08	0.8	0.12	0.06
033028	**Flit at Shefford** C.A: 119.6 km²	**66-85**	**608**		**201**		**0.76**	**7.5**	**06/05 1978**	**0.14**	**26/08 1976**	**1.3**	**0.59**	**0.31**
M.A: NRA-A	Level: 37m Local Number:													
F.A.R: GEI	B.F.I: .72 Sensitivity: 10.5	1986	654	108	240	119	0.91	5.4	03/04	0.35	16/10	1.6	0.77	0.45
Comment: Trapezoidal critical depth flume, 9.8m broad; 2.1m broad at horizontal crest. Structure-full 0.76m stage. Subject to drowning. Flows affected by upstream mill operation. Surface water abstraction for spray irrigation. Abstraction for PWS closed 1985. Flows augmented by effluent from Luton. # Geology - predominantly Greensand (60%). Land use - agricultural.		1987	697	115	266	132	1.01	**8.2**	**21/10**	0.49	09/07	1.6	0.81	0.56
		1988	626	103	271	135	1.02	7.1	20/03	0.50	16/08	1.6	0.82	0.55
		1989	600	99	242	120	0.92					1.6	0.66	0.46
		1990	472	78	212	105	0.80	6.0d	03/02	0.37	07/08	1.2	0.58	0.41
033029	**Stringside at White Bridge** C.A: 98.8 km²	**65-85**	*637*		**176**		**0.55**	**4.6**	**28/03 1979**	**0.02**	**25/08 1976**	**1.1**	**0.43**	**0.09**
M.A: NRA-A	Level: 3m Local Number:													
F.A.R: GI	B.F.I: .85 Sensitivity: 21.1	1986	640	100	114	65	0.36	1.5	30/12	0.06	07/10	0.7	0.34	0.07
Comment: A trapezoidal critical depth flume, calibrated by model and designed to operate in the non-modular range. High flows should be reliable in periods when the channel has been maintained. Two groundwater abstractions for PWS. # A rural catchment developed mainly on Chalk with some clay. Very low population density - no towns.		1987	723	114	219	124	0.69	3.3	10/10	0.21	21/08	1.1	0.67	0.26
		1988	612	96	183	104	0.57	**4.6**	**29/01**	0.11	07/10	1.2	0.33	0.13
		1989	549	86	60	34	0.19	0.8	23/04	0.02	07/09	0.4	0.14	0.03
		1990	502	79	60	34	0.19	1.9	03/02	**0.01**	**06/09**	0.5	0.09	0.01
033031	**Broughton Brook at Broughton** C.A: 66.6 km²	**71-85**	**623**		**148**		**0.31**	**25.3**	**15/08 1980**	**0.02**	**13/07 1976**	**0.7**	**0.12**	**0.04**
M.A: NRA-A	Level: 57m Local Number:													
F.A.R: GE	B.F.I: .38 Sensitivity:	1986	685	110	158	107	0.33	12.6	10/01	0.04	01/08	0.9	0.14	0.04
Comment: Flat V Crump profile weir 7.0m wide installed in 1977 when river realigned. Prior to 23/6/77 trapezoidal critical depth flume 7.4m wide, horizontal crest 1m wide. Flume subject to drowning - flows corrected. Groundwater abstraction for pubic water supply. # The catchment is largely rural and flat, the edge just impinging on the Chiltern escarpment. It is an impervious (entirely clay) catchment.		1987	695	112	164	111	0.35	12.6	21/10	0.04	20/08	0.7	0.15	0.04
		1988	646	104	132	89	0.28	8.6	23/01	0.04	26/08	0.6	0.11	0.04
		1989	625	100	126	85	0.27	13.3	20/12			0.6	0.07	0.03
		1990	466	75										
033032	**Heacham at Heacham** C.A: 59.0 km²	**65-85**	**693**		**114**		**0.21**	**1.2**	**01/08 1980**	**0.03**	**25/08 1976**	**0.4**	**0.18**	**0.06**
M.A: NRA-A	Level: 9m Local Number:													
F.A.R: GI	B.F.I: .96 Sensitivity: 33.5	1986	690	100	113	99	0.21	0.4	10/01	0.10	12/11	0.3	0.20	0.10
Comment: Two Crump profile weirs in parallel, 3m broad. Weirs never drown. Groundwater abstraction for public water supply and irrigation. Topographical catchment area substantially exceeds the true contributing area (by a factor of about two). # Geology - predominantly Chalk (approx. 40%); overlain by Boulder Clay. Land use - agricultural.		1987	756	109	143	125	0.27	0.5	10/10	0.13	24/09	0.4	0.29	0.13
		1988	623	90	152	133	0.28	0.9	08/02	0.11	18/12	0.5	0.23	0.11
		1989	569	82	49	43	0.09	0.2	15/06	0.04	11/12	0.1	0.10	0.04
		1990	556	80	35	31	0.07	0.1	26/03	0.03	23/12	0.1	0.06	0.03
033033	**Hiz at Arlesey** C.A: 108.0 km²	**73-85**	**608**		**197**		**0.67**	**6.3**	**18/11 1974**	**0.20**	**27/08 1976**	**1.1**	**0.59**	**0.35**
M.A: NRA-A	Level: 36m Local Number:													
F.A.R: GEI	B.F.I: .85 Sensitivity:	1986	668	110	188	95	0.64	3.8	20/05	0.40	08/10	0.9	0.61	0.43
Comment: Crump profile weir, 7m broad. Subject to drowning at peak flows. Augmentation by effluent affects diurnal flow pattern. Significant groundwater abstractions for PWS. # Predominantly Chalk catchment. Land use - agricultural with significant urban development (Hitchin).		1987	700	115	222	113	0.76	5.4d	10/10	0.44	02/10	1.1	0.61	0.48
		1988	641	105	241	122	0.82	5.3	29/01	0.48	30/08	1.3	0.67	0.50
		1989	573	94	169	86	0.58	3.0	20/12	0.34	25/09	0.9	0.52	0.36
		1990	480	79	166	84	0.57	5.4	03/02	0.32	13/09	0.9	0.45	0.34
033034	**Little Ouse at Abbey Heath** C.A: 699.3 km²	**68-85**	**603**		**176**		**3.89**	**23.9**	**30/03 1979**	**0.48**	**28/08 1976**	**7.3**	**2.91**	**1.30**
M.A: NRA-A	Level: 7m Local Number:													
F.A.R: GEI	B.F.I: .80 Sensitivity: 10.6	1986	656	109	154	88	3.41	15.2	31/12	1.23	19/08	6.0	3.10	1.36
Comment: Rectangular section Crump profile weir with crest tapping. Replaced 33008 in 1968. Weir subject to drowning and spills on rare occasions. Since the late 1980s, low flows augmented from groundwater in drought conditions, thus the recent min. dmfs provide an unrepresentative guide to drought intensity. # Geology - Chalk with approx. 85% Boulder Clay cover. Land use - predominantly agricultural with large areas of forest and heathland.		1987	740	123	249	141	5.53	**25.3**	**13/10**	2.03	13/07	8.7	4.59	2.59
		1988	667	111	242	138	5.36	23.8	31/01	1.84	16/09	9.6	3.82	2.12
		1989	536	89	129	73	2.85	12.1d	17/03	0.91	24/08	5.2	2.15	1.11
		1990	507	84	97	55	2.14	15.2	04/02	0.86	16/07	3.9	1.50	0.99
033037	**Bedford Ouse at Newp't Pagnell Wr** C.A: 800.0 km²	**69-85**	**651**		**219**		**5.56**	**74.8d**	**16/03 1982**	**0.10**	**25/08 1976**	**13.1**	**2.69**	**0.74**
M.A: NRA-A	Level: 54m Local Number:													
F.A.R: PGEI	B.F.I: .48 Sensitivity: 6.4	1986	718	110	168	77	4.27	62.0	11/01	0.43	08/10	11.4	1.93	0.51
Comment: Compound Crump profile weir, (29.3m broad, with crest tapping and central notch, 3m broad) plus complementary Crump weir (with crest tapping) 3.7m broad, constructed in old mill throttle, 7m upstream of a double arch culvert; subject to drowning at high flows. Abstractions for PWS approx. 25km upstream. # Predominantly pervious catchment (60%) Land use - mostly arable and grassland but Milton Keynes is in the headwaters. Runoff under review.		1987	665	102	164	75	4.17	47.2	08/04	0.45	02/10	9.9	2.18	0.55
		1988	637	98	143	65	3.61	66.2	24/01	0.47	19/09	9.2	1.22	0.56
		1989	657	101	127	58	3.22	43.0	22/12	0.24	08/09	9.2	1.01	0.32
		1990	507	78	95	43	2.42	50.5d	04/02	0.14	15/09	5.9	0.54	0.17
033039	**Bedford Ouse at Roxton** C.A: 1660.0 km²	**72-85**	**633**		**211**		**11.12**	**99.0d**	**24/11 1974**	**0.21**	**25/08 1976**	**27.2**	**5.65**	**1.82**
M.A: NRA-A	Level: 16m Local Number:													
F.A.R: PGEI	B.F.I: .54 Sensitivity: 10.5	1986	692	109	239	113	12.57	81.9	13/01	2.00	10/10	29.8	8.32	2.62
Comment: Flat V Crump profile weir with crest tapping, 26m broad, situated immediately upstream of confluence with R. Ivel. Subject to drowning at very high flows and can spill on rare occasions. The adjacent lock acts as an overspill in flood conditions. Significant surface water and groundwater abstractions for PWS, industry and agriculture. # Geology Predominantly Clay. Land use is predominantly agricultural with substantial urban development (Milton Keynes).		1987	676	107	265	126	13.97	71.5	10/04	2.85	01/10	32.2	9.25	3.39
		1988	630	100	225	107	11.80	91.8d	27/01	2.93	29/08	25.9	6.64	3.22
		1989	636	100	197	93	10.34	69.5d	23/12	1.75	18/10	26.9	4.89	1.96
		1990	481	76	152	72	8.00	87.4d	06/02	1.13	07/08	18.8	3.09	1.30

		Period	Rainfall (mm)	% of pre-1986	Runoff (mm)	% of pre-1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
033040	**Rhee at Ashwell** C.A: km²	**65..85**	*577*				**0.07**	**0.4**	**30/05 1979**	**0.02**	**30/07 1973**	**0.1**	**0.05**	**0.02**
M.A: NRA-A	Level: 40m Local Number:													
F.A.R: RG	B.F.I: .97 Sensitivity: 14.1	1986					0.06	0.2	19/01	0.03	29/11	0.1	0.05	0.04
Comment: Trapezoidal Standing Wave flume in moulded glass reinforced plastic. Situated 0.5km downstream of source of R. Rhee. Flows influenced by large groundwater abstractions for PWS. A minimum spring flow of 0.03 m^3s^{-1} is maintained by artificial groundwater recharge for conservation purposes. # Geology - predominantly Chalk. Land use - agricultural.		1987					0.06	0.3	30/10	0.03	29/09	0.1	0.06	0.04
		1988					0.09	0.2	01/02	0.03	16/12	0.2	0.09	0.03
		1989					0.05	0.2	06/07	0.03	09/12	0.1	0.05	0.03
		1990	448	78			0.06	0.2	19/03	0.03	18/12	0.1	0.04	0.03
033044	**Thet at Bridgham** C.A: 277.8 km²	**67-85**	*626*		**183**		**1.61**	**13.8**	**04/02 1979**	**0.12**	**27/08 1976**	**3.4**	**1.12**	**0.39**
M.A: NRA-A	Level: 15m Local Number:													
F.A.R: GEI	B.F.I: .74 Sensitivity: 14.9	1986	655	105	165	90	1.46	6.2	11/01	0.32	21/08	3.0	1.23	0.39
Comment: Crump profile weir, 6m broad. Prior to Oct 1979, broad-crested weir (crest: 7.4m), situated under double-arch bridge. Theoretical rating for original weir confirmed by current meter measurements. Groundwater abstractions in catchment. # Geology - Chalk with approx. 90% Boulder Clay cover. Rural catchment with one or two small towns.		1987	743	119	258	141	2.27	8.5d	26/08	0.60	14/07	3.9	1.93	0.87
		1988	682	109	254	139	2.23	12.0	31/01	0.51	13/08	4.4	1.52	0.60
		1989	543	87	132	72	1.16	5.1	03/03	0.21	25/08	2.4	0.71	0.28
		1990	532	85	104	57	0.92	6.4	04/02	0.20	16/07	1.7	0.59	0.37
033045	**Wittle at Quidenham** C.A: 28.3 km²	**67-85**	*609*		**153**		**0.14**	**3.2d**	**16/09 1968**	**0.00**	**27/08 1976**	**0.3**	**0.08**	**0.02**
M.A: NRA-A	Level: 24m Local Number:													
F.A.R: GI	B.F.I: .64 Sensitivity: 32.4	1986	647	106	119	78	0.11	0.7	10/01	0.02	07/10	0.2	0.08	0.02
Comment: Compound broad-crested weir, (crest: 3m), with central notch separated by splitter plates; situated under road bridge. Theoretical rating modified by current meter measurements. Weir drowned in 1968 floods. # Geology - predominantly Chalk overlain with Boulder Clay. Land use - agricultural.		1987	714	117	241	158	0.22	2.6	15/10	0.04	20/08	0.4	0.13	0.04
		1988	660	108	209	137	0.19	1.8	29/01	0.03	11/09	0.4	0.10	0.04
		1989	526	86	90	59	0.08	0.8	02/03	0.00	23/08	0.2	0.05	0.01
		1990	532	87	74	48	0.07	0.8	03/02	0.00	15/11	0.1	0.07	0.01
033046	**Thet at Red Bridge** C.A: 145.3 km²	**67-85**	*626*		**192**		**0.88**	**18.0d**	**17/09 1968**	**0.02**	**25/08 1976**	**2.0**	**0.53**	**0.13**
M.A: NRA-A	Level: 20m Local Number:													
F.A.R: GI	B.F.I: .63 Sensitivity: 23.8	1986	651	104	176	92	0.81	4.5	10/01	0.12	19/07	1.9	0.59	0.16
Comment: Crump profile weir, 4m broad. Theoretical rating confirmed by current metering to structure-full, thereafter rating allows for drowning and spilling. Groundwater abstractions for public water supply and industry; surface water abstractions for spray irrigation. # Geology predominantly Chalk overlain with Boulder Clay. Land use - agricultural.		1987	749	120	291	152	1.34	12.5	26/08	0.26	14/07	2.3	0.97	0.40
		1988	686	110	256	133	1.17	9.8	30/01	0.22	19/09	2.3	0.75	0.25
		1989	545	87	129	67	0.59	3.6	21/12	0.09	21/08	1.3	0.29	0.11
		1990	541	86	106	55	0.49	5.6	03/02	0.08	18/07	1.0	0.32	0.15
033048	**Larling Brook at Stonebridge** C.A: 21.4 km²	**69-85**	*622*		**77**		**0.05**	**0.6**	**01/02 1979**	**0.00**	**27/08 1976**	**0.1**	**0.04**	**0.01**
M.A: NRA-A	Level: 25m Local Number: 33348													
F.A.R: GI	B.F.I: .82 Sensitivity: 13.5	1986	669	108	74	96	0.05	0.2	30/12	0.02	16/08	0.1	0.05	0.02
Comment: A concrete flume of triangular cross-section with 1:1.5 side slopes, depth 0.8m. Theoretical rating. # Geology comprises of Chalk overlain by glacial sand and gravel. Land use - rural, largely non arable.		1987	769	124	150	195	0.10	**1.5**	**25/08**	0.04	13/07	0.2	0.08	0.05
		1988	692	111	181	235	0.12	0.8	29/01	0.04	19/09	0.2	0.10	0.04
		1989	549	88	71	92	0.05	0.3	20/12	0.01	29/09	0.1	0.04	0.01
		1990	514	83	38	49	0.03	0.3	03/02	**0.00**	**24/08**	0.1	0.02	
033050	**Snail at Fordham** C.A: 60.6 km²	**60..85**	*576*		**160**		**0.31**	**2.2d**	**06/05 1978**	**0.06**	**24/09 1964**	**0.5**	**0.28**	**0.12**
M.A: NRA-A	Level: 10m Local Number:													
F.A.R: GI	B.F.I: .89 Sensitivity: 21.4	1986	613	106	141	88	0.27	1.0	30/12	0.15	09/08	0.4	0.27	0.17
Comment: Flat V Crump profile weir, 4m broad. Prior to 1985 subsidiary Crump profile weir (0.7m) broad, measured bypass channel discharge. Flows combined into single series. Weir removed 12/84 and main weir rating adjusted to compensate (flows increased by 2%). Significant groundwater abstractions for PWS and surface water abstractions for spray irrigation. # Geology - Predominantly Chalk; the southern part of the catchment is covered by Boulder Clay. Land use - 50% rural; 50% urbanised (Newmarket).		1987	692	120	221	138	0.42	1.9	11/10	0.26	16/08	0.6	0.36	0.29
		1988	622	108	231	144	0.44	2.2	29/01	0.24	30/08	0.7	0.37	0.26
		1989	505	88	135	84	0.26	1.1	08/07	0.13	09/09	0.4	0.25	0.14
		1990	439	76	109	68	0.21	2.0	03/02	0.08	22/09	0.4	0.17	0.09
033051	**Cam at Chesterford** C.A: 141.0 km²	**64-85**	**602**		**133**		**0.60**	**13.0**	**01/02 1979**	**0.07**	**26/07 1976**	**1.1**	**0.42**	**0.18**
M.A: NRA-A	Level: 35m Local Number:													
F.A.R: GEI	B.F.I: .68 Sensitivity: 13.9	1986	678	113	114	86	0.51	3.5	25/12	0.18	10/10	0.9	0.42	0.21
Comment: Compound broad-crested weir, 22.3m broad (in trapezoidal section) with central notch 3m broad, 0.23m deep. Significant groundwater abstractions for Public Water Supply. # Geology - predominantly Chalk - approx. 70% Boulder Clay cover. Land use - arable.		1987	755	125	192	144	0.86	11.9	10/10	0.33	12/07	1.4	0.53	0.37
		1988	638	106	173	130	0.77	11.4	29/01	0.25	08/09	1.2	0.52	0.33
		1989	563	94	95	71	0.42	9.0	16/03	0.14	07/09	0.6	0.32	0.16
		1990	459	76									-	
033052	**Swaffham Lode at Swaffham Bulbeck** C.A: 36.4 km²	**63..85**	*549*		**141**		**0.16**	**0.6**	**28/01 1980**	**0.02**	**09/09 1976**	**0.3**	**0.15**	**0.07**
M.A: NRA-A	Level: 3m Local Number:													
F.A.R: GE	B.F.I: .95 Sensitivity:	1986	613	112	94	67	0.11	0.2	23/05	0.06	04/10	0.1	0.11	0.07
Comment: Crump profile weir, 2.5m broad, situated immediately upstream of road bridge. Prior to 1973 thin-plate weir, 1.45m broad. Significant groundwater abstractions for public water supply. # Geology - predominantly Chalk. Land use - arable.		1987	692	126	152	108	0.18	0.3	30/10	0.11	20/08	0.3	0.16	0.13
		1988	588	107	166	118	0.19	**0.6**	**29/01**	0.08	12/11	0.3	0.15	0.09
		1989	501	91	78	55	0.09	0.2d	07/04	0.04	12/11	0.2	0.09	
		1990	424	77										
033053	**Granta at Stapleford** C.A: 114.0 km²	**49..85**			**59**		**0.21**	**9.6d**	**21/12 1960**	**0.00**	**24/10 1976**	**0.5**	**0.13**	**0.01**
M.A: NRA-A	Level: 15m Local Number: 33053													
F.A.R: GEI	B.F.I: .57 Sensitivity: 70.0	1986			60	102	0.22	3.3	30/12	0.04	11/10	0.4	0.17	0.05
Comment: Compound weir with Crump notch (1.5 metres broad) and broad-crested flanks (3.0 metres broad) superseded - in 1981 - original thin-plate weir; some flows estimated, only monthly means are considered valid. # Headwaters drain the Chalk, mainly impervious below. Land use is dominated by arable agriculture.		1987			156	264	0.56	5.1	26/08	0.18	13/07	1.0	0.33	0.20
		1988												
		1989												
		1990												
033054	**Babingley at Castle Rising** C.A: 47.7 km²	**76-85**	*694*		**366**		**0.55**	**2.1**	**28/03 1979**	**0.13**	**14/07 1976**	**0.8**	**0.51**	**0.30**
M.A: NRA-A	Level: 5m Local Number:													
F.A.R: GEI	B.F.I: .94 Sensitivity:	1986	684	99	315	86	0.48	1.0	10/01	0.24	16/10	0.7	0.47	0.26
Comment: Triangular profile Flat V Crump weir, 4.5m broad; level of wingwalls - 1.2m above crest. Subject to drowning. Significant groundwater abstraction for public water supply. # Geology - Chalk catchment. Land use - arable.		1987	771	111	373	102	0.56	1.3	10/10	0.31	16/08	0.7	0.62	0.34
		1988	651	94	384	105	0.58	1.5	29/01	0.26	07/10	1.0	0.47	0.27
		1989	594	86	179	49	0.27	0.6	20/01	0.13	28/10	0.4	0.28	0.15
		1990	565	81	161	44	0.24	0.6	04/05	**0.11**	**11/08**	0.4	0.22	0.13
033055	**Granta at Babraham** C.A: 98.7 km²	**63..85**	*590*		**79**		**0.25**	**6.5**	**06/05 1978**	**0.00**	**25/11 1976**	**0.5**	**0.15**	**0.04**
M.A: NRA-A	Level: 23m Local Number:													
F.A.R: GEI	B.F.I: .57 Sensitivity: 36.0	1986	651	110	68	86	0.21	3.6	30/12	0.04	11/10	0.4	0.16	0.05
Comment: Triangular profile Flat V weir, 8.3m broad; constructed on an old brick weir. Height of wing walls above crest - 0.6m. Significant groundwater abstractions for public water supply. # Geology - Chalk catchment. Land use - dominantly arable.		1987	770	131	160	203	0.50	**8.1**	**11/10**	0.10	20/08	1.0	0.28	0.14
		1988	595	101	128	162	0.40	**8.9**	**29/01**	0.07	27/11	0.8	0.21	0.09
		1989	520	88	49	62	0.15	4.3	16/03	0.01	09/12	0.3	0.08	0.02
		1990	453	77	34	43	0.11	4.8	03/02	0.00	14/10	0.2	0.04	>0.00

		Period	Rainfall (mm)	% of pre-1986	Runoff (mm)	% of pre-1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
033056	**Quy Water at Lode** C.A: 76.4 km²	**65..85**	*591*		**69**		**0.17**	**2.5**	**06/02**	**0.00**	**21/09**	**0.5**	**0.11**	**>0.00**
M.A: NRA-A	Level: 3m Local Number:								**1984**		**1976**			
F.A.R: GEI	B.F.I: .77 Sensitivity: 50.0	1986			61	88	0.15	**2.6**	**24/04**	0.02	09/10	0.3	0.14	0.02
Comment: Compound weir, 4.8m broad, with Crump profile centre section, 1m broad, 0.3m deep. At flows greater than 0.32 m^3s^{-1} flow occurs over broad-crested flanks between vertical side walls. Pre-1975 data imprecise. Peak flow data from 1979. In dry weather stream leaks through bed into the fen and can dry up. Three large abstractions in catchment for PWS. # Geology - Chalk with Upper Greensand in lower catchment. Land use - mainly agricultural with eastern edge of Cambridge encroaching into catchment.		1987			137	199	0.33	1.7	16/11	0.07	24/08	0.6	0.25	0.16
		1988			163	236	0.39	**2.7**	**07/08**	0.09	11/11	0.9	0.21	0.10
		1989			52	75	0.12	1.4	27/03	0.02	08/11	0.2	0.11	0.03
		1990												
033057	**Ouzel at Leighton Buzzard** C.A: 119.0 km²	**76-85**	**644**		**205**		**0.77**	**8.6**	**28/12**	**0.10**	**23/08**	**1.6**	**0.54**	**0.24**
M.A: NRA-A	Level: 81m Local Number:								**1979**		**1976**			
F.A.R: GEI	B.F.I: .68 Sensitivity: 8.6	1986			216	105	0.82	5.0	10/01	0.23	02/08	1.6	0.64	0.25
Comment: Crump profile weir, 6.0m broad, in trapezoidal section, 7.5m broad. The weir is subject to drowning at flows of approx. 4 m^3s^{-1}. Intake weir (1m broad) to gravel pit, immediately upstream of station - infiltrates into Lower Greensand aquifer. # Geology; predominantly Chalk. A rural catchment draining from the Chiltern escarpment. Land in the lower reaches is gently undulating.		1987			262	128	0.99	**9.5**	**20/10**	0.25	18/07	1.7	0.69	0.37
		1988			226	110	0.85	7.8	29/01	0.30	06/09	1.6	0.56	0.34
		1989			146	71	0.55	8.1	25/02	**0.05**	**07/12**	1.0	0.37	0.16
		1990												
033058	**Ouzel at Bletchley** C.A: 215.0 km²	**78-85**	*687*		**286**		**1.95**	**35.3d**	**06/05**	**0.41**	**05/11**	**4.0**	**1.27**	**0.56**
M.A: NRA-A	Level: 66m Local Number:								**1978**		**1985**			
F.A.R: GEI	B.F.I: .60 Sensitivity: 9.3	1986	715	104	276	97	1.88	16.4	10/01	0.46	15/08	4.4	1.27	0.50
Comment: Flat V weir, 10m broad. Constructed to measure flows just upstream of urban development (Milton Keynes). Small groundwater abstractions. Flows augmented by effluent from Leighton Buzzard. # Mixed geology - Upper Greensand and Oxford Clay. Land use - arable.		1987	714	104	311	109	2.12	29.5	21/10	0.63	26/09	3.8	1.42	0.70
		1988	650	95	273	95	1.86	26.0	24/01	0.59	30/08	3.7	1.13	0.65
		1989	650	95	216	76	1.47	24.5	21/12	0.42	27/09	3.1	0.79	0.44
		1990	508	74						**0.35**	**03/08**			
033063	**Little Ouse at Knettishall** C.A: 101.0 km²	**80-85**	***614***		**156**		**0.50**	**5.6**	**27/04**	**0.06**	**11/09**	**0.9**	**0.37**	**0.17**
M.A: NRA-A	Level: 16m Local Number:								**1981**		**1982**			
F.A.R: GEI	B.F.I: .70 Sensitivity: 19.0	1986	651	106	119	76	0.38	2.9	30/12	0.13	16/08	0.7	0.31	0.14
Comment: Compound Crump profile weir, 4.5m broad. Structure drowns above 3.35 m^3s^{-1}. Minor abstractions and returns. 3 wells constructed in 1987 to augment low flows. # Geology - predominantly Chalk. Land use - arable.		1987	726	118	227	146	0.73	6.8	27/08	0.23	10/07	1.2	0.48	0.26
		1988	641	104	201	129	0.64	4.8	30/01	0.22	19/09	1.1	0.41	0.24
		1989	527	86	95	61	0.31	3.0	16/03	0.11	24/09	0.5	0.23	0.12
		1990	508	83	69	44	0.22	3.5	03/02	0.05	31/08	0.4	0.17	0.05
033064	**Whaddon Brook at Whaddon** C.A: 16.0 km²	**80-85**			**160**		**0.08**	**0.4**	**31/05**	**0.03**	**13/12**	**0.1**	**0.07**	**0.05**
M.A: NRA-A	Level: 16m Local Number:								**1983**		**1981**			
F.A.R: GE	B.F.I: .90 Sensitivity: 12.5	1986			152	95	0.08	0.3	20/10	0.04	10/10	0.1	0.08	0.05
Comment: Pre-cast fibreglass flume set in concrete; long-crested flume crest 0.1m broad. Flows affected by effluent from Royston STW upstream of station. # The stream is largely groundwater fed. Geology - Chalk. Land use - rural.		1987			174	109	0.09	0.2	20/11	0.05	12/08	0.1	0.08	0.06
		1988			222	139	0.11	0.4	29/01	0.06	27/08	0.2	0.09	0.06
		1989			143	89	0.07	0.6d	13/12	0.03	04/12	0.1	0.07	0.04
		1990												
033065	**Hiz at Hitchin** C.A: 6.8 km²	**80-85**	***602***		**186**		**0.04**	**1.8**	**04/12**	**0.01**	**17/05**	**0.1**	**0.03**	**0.02**
M.A: NRA-A	Level: 63m Local Number:								**1985**		**1984**			
F.A.R: GEI	B.F.I: .85 Sensitivity:	1986	692	115	99	53	0.02	0.4	20/05	0.01	19/01	0.0	0.02	0.01
Comment: Old concrete weir with crest reshaped by steel beam to form compound Crump profile, 6.2m wide; central notch 1m wide, 0.14m deep. Substantial abstractions for PWS. # Small spring fed stream flowing through Hitchin market place. Geology - predominantly Chalk catchment with small amounts of sand, gravel and clay. Land use - 90% arable, 10% urban.		1987	716	119	114	61	0.02	0.4	29/07	0.00	24/02	0.1	0.02	0.01
		1988	661	110	262	141	0.06	0.4	08/05	0.01	15/09	0.1	0.04	0.02
		1989	584	97										
		1990	491	82										
033066	**Granta at Linton** C.A: 59.8 km²	81-85	*589*		108		0.20	4.7	09/12	0.02	18/09	0.4	0.11	0.03
M.A: NRA-A	Level: 40m Local Number:								1982		1982			
F.A.R: GEI	B.F.I: .47 Sensitivity: 25.0	1986	665	113	87	81	0.16	3.2	25/12	0.02	09/10	0.4	0.10	0.03
Comment: Compound Crump weir. Flows possibly affected by groundwater abstractions. Definite impact of groundwater augmentation during dry summers. # A Chalk catchment with arable farming the dominant land use.		1987	790	134	198	183	0.38	5.5	09/10	0.09	05/06	0.7	0.19	0.10
		1988	606	103	141	131	0.27	5.2	29/01	0.04	25/11	0.5	0.12	0.04
		1989	531	90	67	62	0.13	4.4	16/03	0.01	07/12	0.3	0.05	0.01
		1990	460	78	45	42	0.09	4.9	03/02	0.00	23/10	0.2	0.03	
033067	**New River at Burwell** C.A: 19.6 km²	82-85	*575*		399		0.25	0.7	21/05	0.10	06/11	0.4	0.24	0.12
M.A: NRA-A	Level: 3m Local Number:								1983		1985			
F.A.R: GEI	B.F.I: .96 Sensitivity: 15.5	1986	592	103	240	60	0.15	0.2	31/12	- 0.09	09/10	0.2	0.15	0.10
Comment: Crump weir. Flows affected by groundwater abstractions. # A Chalk catchment with arable farming the dominant land use.		1987	649	113	417	105	0.26	0.5	24/11	0.19	21/08	0.4	0.23	0.21
		1988	612	106	526	132	0.33	1.0	30/01	0.16	02/11	0.5	0.27	0.16
		1989	495	86	268	67	0.17	0.3d	07/04	0.09	21/10	0.2	0.18	0.09
		1990	424	74										
033068	**Cheney Water at Gatley End** C.A: 5.0 km²	82-85	*582*		114		0.02	0.1	07/08	0.00	31/12	0.0	0.01	
M.A: NRA-A	Level: 43m Local Number:								1984		1985			
F.A.R:	B.F.I: .96 Sensitivity:	1986			75	66	0.01	0.0	20/05	0.00	01/01	0.0	0.01	
Comment: Crump weir. Flows possibly affected by groundwater abstractions. Station also known as Steeple Morden. # A Chalk catchment devoted largely to arable farming.		1987			100	88	0.02	0.0	16/12	0.00	05/10	0.0	0.02	>0.00
		1988			177	155	0.03	0.1	07/02	0.00	27/10	0.1	0.02	
		1989			56	49	0.01	0.0d	26/05	0.00	18/09	0.0	0.01	
		1990												
034001	**Yare at Colney** C.A: 231.8 km²	**59-85**	**654**		**196**		**1.44**	**21.6**	**17/09**	**0.12**	**12/07**	**3.1**	**0.96**	**0.37**
M.A: NRA-A	Level: 8m Local Number:								**1968**		**1976**			
F.A.R: GI	B.F.I: .65 Sensitivity: 9.1	1986	654	100	174	89	1.28	5.3	31/12	0.26	23/07	2.8	0.90	0.38
Comment: A compound weir 11.9m wide reconstructed in January 1964 from single level broad-crested weir. The present structure has a Crump section 8.9m wide seperated by a pier from a broad-crested weir at a lower level. The topographical catchment exceeds the contributing area (groundwater catchment). Mill sluices artificially regulate flow. Groundwater is abstracted for agricultural uses. # A predominantly rural catchment of Boulder Clay overlying Chalk.		1987	748	114	266	136	1.96	16.9	27/08	0.45	12/07	3.5	1.44	0.59
		1988	688	105	259	132	1.90	10.5	25/01	0.49	10/09	4.0	1.17	0.64
		1989	557	85	134	68	0.98	5.8	21/12	0.25	28/10	1.9	0.58	0.33
		1990	549	84	117	60	0.86			0.15	03/08	1.7	0.60	0.17
034002	**Tas at Shotesham** C.A: 146.5 km²	**57..85**	**611**		**161**		**0.75**	**62.3**	**16/09**	**0.08**	**05/09**	**1.6**	**0.43**	**0.18**
M.A: NRA-A	Level: 10m Local Number:								**1968**		**1964**			
F.A.R: GEI	B.F.I: .58 Sensitivity: 15.8	1986	633	104	114	71	0.53	4.4	30/12	**0.07**	**16/08**	1.1	0.34	0.09
Comment: Originally a flume set between high rough walls bypassed at 14 m^3s^{-1}. Reconstructed in 1970 as a Flat V Crump and a bypass channel with movable gates added in 1980. Some high flows only partially gauged as water diverts around the station through the bypass channel. Small net augmentation of flows (sewage effluent). # Predominantly Boulder Clay with some valley deposits.		1987	726	119	195	121	0.91	19.0	25/08	0.20	20/08	1.6	0.59	0.29
		1988	672	110	190	118	0.88	7.9	29/01	0.27	16/09	1.6	0.57	0.31
		1989	539	88						0.19	23/08			
		1990	550	90										

		Period	Rainfall (mm)	% of pre-1986	Runoff (mm)	% of pre-1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
034003 **Bure at Ingworth** C.A: 164.7 km²		**59-85**	**676**		**211**		**1.10**	**18.3**	**26/04 1981**	**0.38**	**24/08 1976**	**1.7**	**0.96**	**0.59**
M.A: NRA-A Level: 12m Local Number:		1986	687	102	228	108	1.19	3.5	30/12	0.68	17/07	1.8	1.09	0.76
F.A.R: GI B.F.I: .83 Sensitivity: 8.6		1987	788	117	278	132	1.45	12.8	26/08	0.79	06/07	2.0	1.24	0.88
Comment: Two ogee profile weirs beneath bridge arches bypassed at 4.3 m^3s^{-1} but maintains modularity. Limited ground and surface water abstractions with some returns from public and agricultural uses. # Rural land use. Catchment comprises of sands, gravels and loams.		1988	624	92	262	124	1.36	6.6	29/01	0.84	01/10	2.0	1.14	0.87
		1989	574	85	174	82	0.91	4.0	19/12	0.52	23/08	1.2	0.82	0.60
		1990	590	87	164	78	0.86	3.3d	03/02	0.43	17/08	1.3	0.73	0.48
034004 **Wensum at Costessey Mill** C.A: 536.1 km²		**60-85**	**679**		**245**		**4.16**	**36.8d**	**28/04 1981**	**0.51**	**11/07 1976**	**7.5**	**3.19**	**1.54**
M.A: NRA-A Level: 5m Local Number:		1986	669	99	222	91	3.77	13.7	31/12	1.18	28/09	6.7	3.30	1.61
F.A.R: GI B.F.I: .73 Sensitivity:		1987	807	119	335	137	5.69	24.8d	16/10	1.56	06/07	9.5	4.74	2.08
Comment: The river divides 80m upstream of control. The main channel passes under the disused mill over three broad-crested weirs. When the discharge exceeds 7 m^3s^{-1}, the operation of four flood gates enables the second channel to act as a bypass. Some artificial regulation of flow is caused by sluice action at Taversham. Moderate surface and groundwater abstractions. # Rural catchment of predominantly Boulder Clay with some sands and gravels.		1988	672	99											
		1989	592	87	158	64	2.68	12.1d	21/12	0.92	29/07	4.6	2.22	1.24
		1990	574	85	135	55	2.30	13.6d	04/02	**0.48**	**10/09**	3.7	2.04	0.63
034005 **Tud at Costessey Park** C.A: 73.2 km²		**61-85**	**668**		**151**		**0.35**	**10.4**	**26/04 1981**	**0.02**	**25/08 1976**	**0.7**	**0.25**	**0.10**
M.A: NRA-A Level: 9m Local Number:		1986	659	99	137	91	0.32	2.5	30/12	0.09	18/08	0.6	0.23	0.10
F.A.R: GI B.F.I: .65 Sensitivity: 16.4		1987	747	112						0.12	13/07			
Comment: Four trapezoidal standing-wave flumes under a road bridge have movable dam boards placed across the two outer arches to increase the sensitivity of low flow measurements. The groundwater catchment is smaller than the topographical catchment with consequent losses to adjacent catchments and low annual gauged runoff. # Surface geology is predominantly Boulder Clay with valley gravels. Rural land use.		1988	684	102	215	142	0.50	3.7	24/01	0.17	18/08	0.9	0.34	0.18
		1989	572	86	104	69	0.24	1.8d	21/12	0.07	24/08	0.4	0.17	0.09
		1990	542	81										
034006 **Waveney at Needham Mill** C.A: 370.0 km²		**63-85**	*589*		**151**		**1.77**	**113.3**	**16/09 1968**	**0.19**	**23/08 1973**	**4.1**	**0.77**	**0.32**
M.A: NRA-A Level: 17m Local Number:		1986	668	113	151	100	1.77	16.2	31/12	0.33	18/08	4.4	1.01	0.36
F.A.R: RI B.F.I: .47 Sensitivity:		1987	715	121	287	190	3.37	78.0	26/08	0.43	13/07	6.8	1.46	0.57
Comment: A compound Crump weir 8.5 m wide in the main channel with a single crested Crump in the mill bypass. Sluice action at a mill 2.4 km upstream is infrequent but is evident in flow records. Surface water abstractions, and the use of river gravels as an aquifer, influence flows but the overall impact is minimal. Was affected by the Waveney Groundwater Scheme between 1975 and 1979. # Predominantly a Boulder Clay catchment with largely rural land use.		1988	647	110	250	166	2.93	72.1	29/01	0.43	11/09	5.8	0.91	0.48
		1989	494	84	94	62	1.10	15.3	17/03	0.23	28/07	2.2	0.48	0.27
		1990	531	90	69	46	0.81	14.9d	04/02	**0.17**	**30/07**	1.6	0.54	0.23
034007 **Dove at Oakley Park** C.A: 133.9 km²		**66-85**	**570**		**161**		**0.68**	**38.5**	**16/09 1968**	**0.11**	**14/09 1973**	**1.5**	**0.31**	**0.15**
M.A: NRA-A Level: 21m Local Number:		1986	671	118	155	96	0.66	10.2	30/12	0.14	17/08	1.6	0.38	0.17
F.A.R: RGI B.F.I: .44 Sensitivity: 10.1		1987	710	125	291	181	1.24	28.2	26/08	0.16	12/07	2.0	0.45	0.21
Comment: Compound Crump weir with low flow notch and crest tapping; non-modular at 13 m^3s^{-1} and bypassed at 18 m^3s^{-1}. Groundwater abstractions and effluent returns have a minor net effect on flows, however, between 1975 and 1979 effects more significant due to the Waveney Groundwater Scheme. # A rural catchment of Boulder Clay.		1988	634	111	406	252	1.72			0.19	17/08	2.0	0.32	0.21
		1989	482	85										
		1990	512	90	65	40	0.28					0.4	0.20	0.13
034008 **Ant at Honing Lock** C.A: 49.3 km²		**66..85**	**650**		**200**		**0.31**	**2.6d**	**26/04 1981**	**0.10**	**04/07 1976**	**0.4**	**0.29**	**0.18**
M.A: NRA-A Level: 2m Local Number:		1986	637	98	208	104	0.32	0.8	07/04	0.15	18/07	0.4	0.32	0.19
F.A.R: PGI B.F.I: .87 Sensitivity: 19.9		1987	729	112						0.21	11/07			
Comment: Crump type weir utilising the fall of an old navigation lock. Immediately upstream is a large marshy area with dense weed growth from which some flow bypasses the station. Groundwater abstractions moderately reduce the natural runoff. # Predominantly rural catchment of approximately 50% sand and gravel and 50% loam.		1988	624	96											
		1989	550	85	187	94	0.29	0.8	20/12	0.16	24/07	0.4	0.27	0.19
		1990	569	88										
034010 **Waveney at Billingford Bridge** C.A: 149.4 km²		**68-85**	**605**		**167**		**0.79**	**59.5**	**16/09 1968**	**0.02**	**12/07 1976**	**1.7**	**0.30**	**0.07**
M.A: NRA-A Level: 20m Local Number:		1986	651	108	138	83	0.65	7.5	31/12	0.07	12/10	1.6	0.38	0.10
F.A.R: REI B.F.I: .43 Sensitivity: 33.1		1987	717	119	281	168	1.33	26.2	26/08	0.12	13/07	2.6	0.61	0.19
Comment: Two gauging stations located u/s of two bridge arches: i) compound Crump with low flow notch (insensitive, suffers occasional drowning due to d/s weedgrowth); ii) simple Crump with lifting gate to retain higher summer levels. Bypassing occurs at 6.4 m^3s^{-1}, drowning can result from sluice action at Hoxne Mill. Surface and groundwater abstracted, effluent returned. Affected by Waveney Groundwater Scheme between 1975 and 1979. # The surface geology is predominantly Boulder Clay supporting arable and mixed agriculture.		1988	646	107	227	136	1.07	19.7	29/01	0.05	20/06	2.3	0.35	0.12
		1989	508	84										
		1990	543	90										
034011 **Wensum at Fakenham** C.A: 127.1 km²		**67..85**	**696**		**225**		**0.91**	**9.7**	**12/02 1977**	**0.13**	**25/08 1976**	**1.6**	**0.74**	**0.30**
M.A: NRA-A Level: 34m Local Number:		1986	689	99	197	88	0.79	3.4	02/01	0.31	09/10	1.4	0.75	0.34
F.A.R: GI B.F.I: .83 Sensitivity: 13.2		1987	845	121	300	133	1.21	5.3	12/10	0.50	17/08	1.8	1.05	0.59
Comment: Compound Crump with low flow notch. A lifting gate for retaining summer levels acts as a sharp-crested weir. Groundwater abstractions have a minimal impact on runoff. # A low lying rural catchment of Boulder Clay with large pockets of sand and gravel.		1988	668	96	294	131	1.18	5.4	30/01	0.43	08/10	2.3	0.87	0.50
		1989	601	86	116	52	0.47	4.4	19/12	0.21	24/08	0.8	0.41	0.24
		1990	588	84										
034012 **Burn at Burnham Overy** C.A: 80.0 km²		**66-85**	**679**		**127**		**0.32**	**1.4**	**20/02 1977**	**0.06**	**10/10 1974**	**0.5**	**0.28**	**0.12**
M.A: NRA-A Level: 3m Local Number:		1986	691	102	129	102	0.33	0.8	01/07	0.17	29/10	0.5	0.34	0.18
F.A.R: GEI B.F.I: .95 Sensitivity: 7.6		1987	790	116	171	135	0.43	0.9	18/04	0.28	20/09	0.5	0.45	0.29
Comment: A Crump weir which bypasses at 2.3 m^3s^{-1}. Annual hydrographs reflect high baseflow component from the Chalk aquifer. Groundwater abstractions have only a minimal impact on the natural runoff. May be a minor net import from outside the catchment due to effluent. # Predominantly Boulder Clay with underlying Chalk exposed in the valleys. Rural land use.		1988	613	90	194	153	0.49	1.1	30/07	0.15	08/10	0.9	0.46	0.18
		1989	557	82	54	43	0.14	0.6	10/06	**0.05**	**19/09**	0.2	0.13	0.09
		1990	542	80	44	35	0.11	0.3	01/03	0.07	17/09	0.1	0.11	0.07
034013 **Waveney at Ellingham Mill** C.A: 670.0 km²		72..85	567		32		0.70	9.8	20/10 1981	0.00	06/09 1979	0.9	0.58	0.22
M.A: NRA-A Level: 2m Local Number:		1986	655	116						0.27	26/06			
F.A.R: RI B.F.I: .83 Sensitivity:		1987	716	126										
Comment: Crump weir, 0.86m crest, plus complementary 1.515m Crump with variable level gates for high flows. # A mainly rural catchment developed predominantly on Boulder Clay.		1988	637	112										
		1989	494	87	21	64	0.46			0.31	24/08	0.5	0.47	0.34
		1990	540	95	20	61	0.43	0.9	05/02	0.18	16/08	0.5	0.46	0.26
034014 **Wensum at Swanton Morley Total** C.A: 363.0 km²		**69..85**			**232**		**2.67**	**31.4d**	**27/04 1981**	**0.40**	**19/08 1976**	**4.7**	**2.07**	**1.04**
M.A: NRA-A Level: m Local Number:		1986	678		221	95	2.55	10.1d	30/12	0.85	19/08	4.7	2.11	1.10
F.A.R: GEI B.F.I: .74 Sensitivity: 7.0		1987	822		326	141	3.75	27.5d	26/08	1.34	14/07	6.0	3.04	1.68
Comment: Two structures 150m apart operate in parallel. Beneath the two arch bridge are two Crump weirs which sometimes display non-modular flow as a result of summer weed growth downstream. Three Crump weirs are sited in arches beneath a second bridge. Groundwater abstractions cause a moderate reduction in the natural runoff. # A Boulder Clay catchment of low relief supporting mainly arable agriculture.		1988	676		299	129	3.43	15.9d	29/01	1.29	08/10	6.6	2.44	1.44
		1989	594		157	68	1.81	7.3d	21/12	0.60	09/08	3.1	1.34	0.89
		1990	581											

		Period	Rainfall (mm)	% of pre-1986	Runoff (mm)	% of pre-1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
034018	**Stiffkey at Warham All Saints** C.A: 77.1 km²	**72..85**	**659**		**236**		**0.58**	**12.5**	**11/02 1977**	**0.04**	**29/07 1976**	**1.1**	**0.45**	**0.17**
M.A: NRA-A	Level: 5m Local Number:													
F.A.R: PGI	B.F.I: .80 Sensitivity: 16.5	1986	680	103	198	84	0.48	1.9	30/12	0.17	18/07	0.9	0.41	0.21
Comment: Flat V weir with crest tapping, drowns above 0.8 m^3s^{-1}. Prior to 1978 (when dredging took place) downstream weed growth during summer months could cause complete drowning of gauging structure at lower flows. Large abstractions from groundwater for PWS causes a significant reduction in the natural runoff. # The catchment is predominantly Chalk and Boulder Clay. It supports rural land use.		1987	821	125										
		1988	625	95	275	117	0.67	4.6	30/01	0.27	08/10	1.3	0.50	0.28
		1989	578	88	112	47	0.27	1.2	19/12	0.09	25/07	0.4	0.24	0.11
		1990	559	85	103	44	0.25	1.6	03/02	0.04	13/08	0.5	0.21	0.07
034019	**Bure at Horstead Mill** C.A: 313.0 km²	**74-85**	**658**		**224**		**2.23**	**34.8**	**27/04 1981**	**0.43**	**08/07 1976**	**3.3**	**2.04**	**1.17**
M.A: NRA-A	Level: 1m Local Number:													
F.A.R: RGI	B.F.I: .79 Sensitivity: 9.1	1986	666	101	212	95	2.10	6.3	08/04	0.80	02/08	3.1	1.90	1.24
Comment: Compound Crump weir consisting of 5 Crumps: 4 at fixed levels, the narrowest of which incorporates a fish pass. A vertical lift gate converts the largest to a sharp edge weir, this gate is used, during summer months, to retain upstream water levels. Limited ground and surface water abstractions upstream. Hydrograph closely reflects mill gate operation. # Low lying rural catchment of sand and gravel.		1987	770	117	278	124	2.76	15.0	27/08	1.10	14/07	3.8	2.48	1.56
		1988	625	95	263	117	2.60	9.8d	30/01	0.71	15/07	4.0	2.21	1.45
		1989	577	88	174	78	1.73			**0.24**	**18/09**	2.3	1.61	0.97
		1990	584	89										
035001	**Gipping at Constantine Weir** C.A: 310.8 km²	**64..85**	*581*		**126**		**1.24**	**44.3d**	**02/02 1979**	**0.04**	**22/08 1976**	**2.9**	**0.56**	**0.18**
M.A: NRA-A	Level: 2m Local Number:													
F.A.R: GI	B.F.I: .43 Sensitivity:	1986			131	104	1.29	10.6	31/12	0.24	02/08	3.1	0.65	0.28
Comment: A 152 ft long, broad-crested weir, within the tidal range. Only measures flow at low tide. Station is primarily retained for estimation of high flows. Weir calibrated by model tests, no checks made. Situation is a problem - upstream and downstream bends are measured to correct for drowning. Major artificial influences, however, imports to the catchment are minor. # A rural catchment, the only town being Ipswich. Bolder Clay overlying Chalk.		1987			223	177	2.19	30.2	11/10	0.08	06/06	4.6	1.45	0.20
		1988												
		1989												
		1990												
035002	**Deben at Naunton Hall** C.A: 163.1 km²	**64..85**	**588**		**144**		**0.75**	**29.4**	**17/09 1968**	**0.01**	**14/07 1976**	**1.7**	**0.29**	**0.09**
M.A: NRA-A	Level: 6m Local Number:													
F.A.R: RGI	B.F.I: .36 Sensitivity: 10.6	1986	698	119	162	113	0.84	11.7	31/12	0.07	19/07	2.1	0.37	0.10
Comment: A compound Crump (with crest tapping) and low flow notch. Bypassing occurs at 12 m^3s^{-1} and seasonal weed growth causes drowning. Some groundwater is transfered to beyond the catchment boundary and some is abstracted from within the catchment. The overall impact is to significantly reduce the natural runoff. # The catchment is largely Boulder Clay and sand and gravel. Rural land use.		1987	727	124	274	190	1.42	16.5	16/10	0.12	04/07	3.3	0.51	0.22
		1988	689	117	254	176	1.31	16.3	29/01	0.13	07/09	3.1	0.42	0.19
		1989	480	82										
		1990	521	89										
035003	**Alde at Farnham** C.A: 63.9 km²	**61-85**	**591**		**136**		**0.27**	**15.6**	**10/12 1965**	**0.02**	**08/07 1976**	**0.6**	**0.10**	**0.05**
M.A: NRA-A	Level: 5m Local Number:													
F.A.R: GI	B.F.I: .37 Sensitivity: 17.4	1986			147	108	0.30	7.2	30/12	0.05	16/08	0.7	0.13	0.06
Comment: Broad-crested weir of ogee section with low flow notch and steel plate divide walls. Significant groundwater abstractions: some water exported. The groundwater contours show only token relationship to the surface topography. # The catchment is comprised of Boulder Clay and sand. Predominantly rural land use.		1987			260	191	0.53	10.2	16/10	0.05	12/07	0.9	0.16	0.07
		1988												
		1989	496	84	89	65	0.18	4.7	16/03	0.04	21/08	0.4	0.07	0.04
		1990	534	90						0.02	11/08			
035004	**Ore at Beversham Bridge** C.A: 54.9 km²	**65-85**	**603**		**177**		**0.31**	**11.9**	**26/12 1985**	**0.02**	**26/06 1976**	**0.6**	**0.14**	**0.07**
M.A: NRA-A	Level: 2m Local Number:													
F.A.R: GI	B.F.I: .46 Sensitivity: 11.9	1986	684	113	192	108	0.33	5.2	30/12	0.05	02/08	0.6	0.17	0.08
Comment: A compound Crump weir with low flow notch and crest tapping that occasionally drowns as a result of downstream weedgrowth and siltation. Groundwater catchment exceeds topographic catchment. Groundwater abstractions make a moderate reduction in the natural runoff. # The catchment is 60% Boulder Clay and 40% sand and gravel. Rural land use.		1987	724	120	288	163	0.50	5.7	01/01	0.09	14/01	1.1	0.21	0.12
		1988	659	109										
		1989	475	79										
		1990	532	88										
035008	**Gipping at Stowmarket** C.A: 128.9 km²	**64..85**	*571*		**151**		**0.62**	**34.4**	**01/02 1979**	**0.05**	**26/08 1973**	**1.4**	**0.23**	**0.09**
M.A: NRA-A	Level: 25m Local Number:													
F.A.R: GEI	B.F.I: .38 Sensitivity: 11.2	1986	650	114	152	101	0.62	8.8	30/12	0.09	29/06	1.5	0.35	0.10
Comment: Compound Crump weir rebuilt in 1966 from a compound broad-crested weir, known as a summer station, but which contained all flows. Minimal natural storage within the catchment and the Boulder Clay gives a flashy response. Abstractions from groundwater and effluent returns broadly balance. # Boulder Clay with valley sand and gravel. Predominantly rural land use.		1987	726	127	255	169	1.04	24.2	15/10	0.10	12/07	2.2	0.42	0.15
		1988	641	112										
		1989	494	87	92	61	0.38	6.6d	16/03	**0.05**	**23/09**	0.9	0.13	0.07
		1990	496	87	55	36	0.23	17.0	03/02	0.06	04/08	0.3	0.13	0.06
035010	**Gipping at Bramford** C.A: 298.0 km²	**69..85**	**557**		**121**		**1.14**	**42.4**	**02/02 1979**	**0.04**	**06/08 1976**	**2.4**	**0.50**	**0.18**
M.A: NRA-A	Level: 6m Local Number:													
F.A.R: GI	B.F.I: .49 Sensitivity: 16.2	1986			122	101	1.16	11.5	18/11	0.24	10/10	2.8	0.72	0.27
Comment: Compound Crump weir with three sections and a gate to convert the largest to a sharp-edge weir. Bypassing occurs at 12 m^3s^{-1} and sluice operation on the weir is evident in the daily flow record. Groundwater abstractions have a significant impact on the natural runoff. # The catchment is 90% Boulder Clay, the remaining 10% is of Crag deposits. Predominantly rural land use.		1987			199	164	1.88	23.0	26/08	0.29	21/08	4.1	1.09	0.48
		1988			193	160	1.82	23.5	30/01	0.40	15/08	3.9	0.84	0.48
		1989			93	77	0.88	11.6	17/03	0.17	11/09	2.0	0.43	0.20
		1990			49	40	0.46	11.3	04/02	0.10	05/09	0.9	0.27	0.11
035013	**Blyth at Holton** C.A: 92.9 km²	**70-85**	**578**		**140**		**0.41**	**32.2**	**01/02 1979**	**0.04**	**20/08 1976**	**0.8**	**0.13**	**0.07**
M.A: NRA-A	Level: 12m Local Number:													
F.A.R: GI	B.F.I: .35 Sensitivity:	1986	654	113	149	106	0.44	14.4	03/04	0.06	19/08	1.1	0.16	0.07
Comment: An asymmetric compound Crump with low flow notch. Groundwater abstractions have a significant effect on the natural runoff. The river responds very rapidly to rainfall. # The catchment is comprised of 44% Boulder Clay; 42% Crag and 13% alluvium. The land use is predominantly rural.		1987	698	121	228	163	0.67	19.8	15/10	0.07	14/07	1.4	0.22	0.09
		1988	621	107										
		1989	500	87	91	65	0.27			0.05	06/08	0.5	0.13	0.06
		1990	568	98	90	64	0.26			**0.03**	**12/08**	0.6	0.09	0.04
036001	**Stour at Stratford St Mary** C.A: 844.3 km²	**28..85**	**597**		**111**		**2.98**	**43.7**	**18/09 1968**	**0.03**	**12/07 1976**	**7.1**	**1.46**	**0.55**
M.A: EWC	Level: 5m Local Number:													
F.A.R: RPGEI	B.F.I: .50 Sensitivity:	1986	634	106	114	103	3.07			0.48	02/08	8.4	1.49	0.78
Comment: Three separate weirs and five sluice gates operated by Essex Water Co. at Stratford St. Mary WTW. Theoretically rated. Daily naturalised flows from 1932 to 1976. Records from 1928. Since April 1978 upper limit of reliable gauging 16 m^3s^{-1}. Extreme floods bypass on rb. WTW (including PWS abstractions) and, to lesser extent Ely Ouse Transfer Scheme (since 1971), highly influence flow. # Rural. Chalk overlain by Boulder Clay in upper catchment and London Clay in lower part.		1987	742	124	267	241	7.15			1.16	06/05		4.91	1.39
		1988	620	104	213	192	5.70			0.80	29/08		2.15	1.14
		1989	505	85	148	133	3.96			0.82	23/05	12.0	1.81	0.98
		1990	457	77	99	89	2.66			0.60	12/08	5.0	1.67	0.72
036002	**Glem at Glemsford** C.A: 87.3 km²	**60-85**	**598**		**172**		**0.48**	**24.1d**	**16/09 1968**	**0.05**	**24/08 1965**	**1.1**	**0.19**	**0.07**
M.A: NRA-A	Level: 34m Local Number:													
F.A.R: GI	B.F.I: .44 Sensitivity: 18.9	1986	645	108	163	95	0.45	5.7	30/12	0.07	08/10	1.0	0.23	0.09
Comment: Trapezoidal flume with bypassing at high flows; modest modular limit; downstream water level recorder to allow for drowning. Occasional problems with weedgrowth. Highest floods unreliably gauged. Naturalised flows from 1960 to September 1976. # Rural catchment of the Upper Stour. Upper Chalk (exposed in river valley sides) is overlain by glacial sand and gravel and semi-pervious Boulder Clay.		1987	781	131	296	172	0.82	14.4	10/10	0.14	01/06	1.7	0.42	0.17
		1988	613	103	212	123	0.59	13.8	29/01	0.10	08/10	1.1	0.23	0.12
		1989	506	85	123	72	0.34	7.4	16/03	0.06	15/10	0.8	0.13	0.08
		1990	437	73	79	46	0.22	11.7	03/02	0.06	08/08	0.4	0.10	0.07

		Period	Rainfall (mm)	% of pre-1986	Runoff (mm)	% of pre-1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
036003	**Box at Polstead** C.A: 53.9 km²	**60-85**	**582**		**123**		**0.21**	**9.0**	**01/02 1979**	**0.03**	**26/08 1976**	**0.4**	**0.13**	**0.06**
M.A: NRA-A	Level: 16m Local Number:													
F.A.R: GEI	B.F.I: .63 Sensitivity: 18.9	1986	623	107	115	93	0.20	2.1	30/12	0.06	02/08	0.3	0.16	0.07
Comment: Trapezoidal flume with high flow rated spillway. Throat tapping; rarely drowns. Subject to reed/weed growth problems. Naturalised flows from 1961 to 1976. Minimal ground and surface water abstractions for agricultural purposes. # Rural catchment, tributary of the Stour. Predominantly London Clay; Chalk in the north, all overlain by superficial deposits.		1987	715	123	208	169	0.36	6.6	15/10	0.10	09/07	0.6	0.21	0.12
		1988	620	107	203	165	0.35	**10.1**	**29/01**	0.09	07/10	0.5	0.18	0.11
		1989	497	85	102	83	0.17	4.0	16/03	0.07	28/07	0.3	0.11	0.07
		1990	477	82	72	59	0.12	4.4	03/02	0.04	24/07	0.2	0.09	0.05
036004	**Chad Brook at Long Melford** C.A: 47.4 km²	**65-85**	**585**		**156**		**0.24**	**15.0**	**16/09 1968**	**0.02**	**09/09 1967**	**0.5**	**0.08**	**0.03**
M.A: NRA-A	Level: 35m Local Number:													
F.A.R: GI	B.F.I: .47 Sensitivity:	1986	637	109	179	115	0.27	4.4	30/12	0.07	02/08	0.6	0.17	0.08
Comment: 'Essex' profile (modified Flat V Crump) weir with low flow side weir which drowns in summer due to weed growth. High flow spillway accurate to 1.1m. Full range. Theoretically rated. Naturalised flows from 1965 to 1976. # Rural catchment, tributary of the Upper Stour. Boulder Clay over Chalk.		1987	751	128	320	205	0.48	7.3	10/10	0.11	14/07	0.9	0.28	0.13
		1988	616	105	264	169	0.40	9.1	29/01	0.12	17/08	0.7	0.19	0.12
		1989	506	86	168	108	0.25	6.5	16/03	0.08	14/09	0.5	0.13	0.10
		1990	451	77	143	92	0.22	7.3	03/02	0.10	16/07	0.3	0.16	0.10
036005	**Brett at Hadleigh** C.A: 156.0 km²	**62-85**	**576**		**136**		**0.67**	**25.0**	**01/02 1979**	**0.03**	**26/08 1976**	**1.5**	**0.30**	**0.09**
M.A: NRA-A	Level: 18m Local Number:													
F.A.R: GEI	B.F.I: .46 Sensitivity:	1986	647	112	145	107	0.72	7.5	30/12	0.14	17/10	1.6	0.43	0.17
Comment: 'Essex' profile (modified Flat V Crump) weir with low flow side weir and high flow rated spillway. Downstream water level recorder to allow for drowning. Naturalised flows from 1962 to 1976. Post '76 adjustments, for groundwater abstractions for PWS and industrial abstraction from surface water, are not made to the gauged daily mean flows. Minor effluent returns may affect flow. # Predominantly rural catchment underlain by Upper Chalk covered mainly with semi-pervious Boulder Clay.		1987	715	124	236	174	1.17	**26.6**	**10/10**	0.20	07/07	2.4	0.58	0.27
		1988	632	110	209	154	1.03	26.1	29/01	0.24	30/09	1.9	0.42	0.26
		1989	497	86	114	84	0.56	12.3	17/03	0.09	30/09	1.2	0.33	0.11
		1990	481	84	52	38	0.26	12.9	04/02	0.05	20/10	0.4	0.11	0.07
036006	**Stour at Langham** C.A: 578.0 km²	**62-85**	**579**		**154**		**2.83**	**91.0**	**17/09 1968**	**0.09**	**09/07 1976**	**6.2**	**1.60**	**0.50**
M.A: NRA-A	Level: 6m Local Number:													
F.A.R: RPGI	B.F.I: .52 Sensitivity: 7.1	1986	636	110	148	96	2.71	23.3	31/12	0.51	02/08	6.0	1.70	0.75
Comment: Twin-trapezoidal flume, throat tapping. Spillway channel with weir constructed in 12/85 takes some flow above 1.45m. Bypassing also occurs over opposite bank above 1.85m. More bypassing possible from 0.5km u/s during extreme events. Naturalised flows to 9/76. Occasional high peaks due to gate action. Flow augmented by intermittent pumping from Ely/Ouse Transfer Scheme and occasional SAGS borehole pumping. # Mainly rural catchment. Chalk outcrops in N, London Clay in S, all covered by semi-pervious Boulder Clay.		1987	760	131	279	181	5.12	53.6	11/10	1.03	29/05	10.6	2.83	1.30
		1988	612	106	220	143	4.02	48.5	30/01	0.99	30/08	7.5	1.94	1.15
		1989	510	88	146	95	2.67	28.1	18/03	0.63	25/09	5.1	1.85	0.76
		1990	449	78	133	86	2.44	34.3	05/02	0.61	25/07	3.5	2.01	0.75
036007	**Belchamp Brook at Bardfield Bridge** C.A: 58.6 km²	**60..85**	**555**		**90**		**0.17**	**11.0**	**01/02 1979**	**0.00**	**27/07 1963**	**0.4**	**0.06**	**0.02**
M.A: NRA-A	Level: 27m Local Number:													
F.A.R: GIN	B.F.I: .41 Sensitivity: 33.9	1986	625	113	78	87	0.15	2.3	30/12	0.02	16/08	0.3	0.07	0.03
Comment: Trapezoidal flume with throat tapping. Full range station in winter, occasionally drowns in summer due to weed growth. Naturalised flows from 1965 to 1976, only minimal adjustments needed to flows since then. # Rural. Tributary of the Stour. Mixed geology: mostly glacial deposits overlying the predominant Chalk.		1987	742	134	212	236	0.39	**11.4**	**09/10**	0.05	27/05	0.7	0.17	0.06
		1988	614	111	176	196	0.33	**12.1**	**29/01**	0.04	08/10	0.5	0.10	0.05
		1989	511	92	79	88	0.15	7.5	16/03	0.01	29/06	0.3	0.06	0.03
		1990	442	80	52	58	0.10					0.2	0.03	0.02
036008	**Stour at Westmill** C.A: 224.5 km²	**60-85**	**596**		**171**		**1.22**	**60.0**	**16/09 1968**	**0.02**	**10/09 1966**	**2.5**	**0.54**	**0.12**
M.A: NRA-A	Level: 33m Local Number:													
F.A.R: RGEI	B.F.I: .41 Sensitivity: 15.2	1986	654	110	168	98	1.20	17.0	30/12	0.13	11/10	2.5	0.69	0.33
Comment: Compound trapezoidal critical depth flume with d/s level recorder. Affected by weed growth but rarely drowns out. Above 1.15m some flow passes over a broad-crested weir 100m u/s into a spillway. Since 22/3/71 flow augmented by intermittent pumping from the Ely/Ouse Transfer Scheme, archived flows adjusted for this until 1976. (Naturalised flows 1960 to 1976.) # Rural, agricultural catchment situated on Upper Chalk overlain by sand and gravel with a mantle of semi-pervious Boulder Clay.		1987	779	131	305	178	2.17	36.8	10/10	0.33	06/07	4.6	0.96	0.45
		1988	601	101	212	124	1.51	32.5	30/01	0.29	10/07	2.6	0.62	0.40
		1989	519	87	181	106	1.29	19.4	17/03	0.30	20/09	2.9	0.85	0.34
		1990	442	74	202	118	1.44	23.2	04/02	0.34	01/04	2.5	1.20	0.47
036009	**Brett at Cockfield** C.A: 25.7 km²	**68-85**	**613**		**160**		**0.13**	**8.1**	**15/09 1968**	**0.00**	**10/11 1977**	**0.3**	**0.03**	**>0.00**
M.A: NRA-A	Level: 59m Local Number:													
F.A.R: N	B.F.I: .31 Sensitivity:	1986	645	105	131	82	0.11	2.3	30/12	0.00	13/10	0.3	0.04	>0.00
Comment: 'Essex' profile (modified Flat V Crump weir). No spillway. Modular limit of 0.66m theoretically derived. No telemetry but planned for future. Naturalised flows from 1969 to 1976, only minimal adjustments needed since. # Small, rural catchment on headwaters of the Brett, a tributary of the R. Stour. Upper Chalk underlies the whole catchment with a mantle of Boulder Clay above.		1987	727	119	268	168	0.22	5.7	09/10	0.01	20/08	0.5	0.09	0.02
		1988	616	100	199	124	0.16	6.1	29/01	0.00	29/08	0.4	0.03	0.01
		1989	508	83	93	58	0.08	3.9	16/03	0.00	16/10	0.2	0.01	>0.00
		1990	454	74	41	26	0.03	4.1	03/02	0.00	16/05	0.1	0.00	
036010	**Bumpstead Brook at Broad Green** C.A: 28.3 km²	**68-85**	**603**		**157**		**0.14**	**21.0**	**15/09 1968**	**0.00**	**29/07 1982**	**0.3**	**0.02**	**>0.00**
M.A: NRA-A	Level: 56m Local Number:													
F.A.R: GIN	B.F.I: .22 Sensitivity:	1986	675	112	158	101	0.14	4.6	25/12	0.00	01/08	0.4	0.05	>0.00
Comment: 'Essex' profile (modified Flat V Crump) weir with crest tapping and high flow spillway. Modular limit approx. 6.0 m^3s^{-1}. Approx. limit of gauging is 12.5 m^3s^{-1}. Naturalised flows from 1968 to 1976, only minor adjustments needed to the gauged daily mean flows, virtually natural catchment. # Rural catchment at the head of the R. Stour. Complete cover of Boulder Clay over glacial gravel and Chalk.		1987	773	128	313	199	0.28	18.9	09/10	0.01	14/07	0.5	0.08	0.02
		1988	594	99	164	104	0.15	12.0	29/01	0.00	03/10	0.3	0.03	>0.00
		1989	528	88	84	54	0.08	8.4	16/03	0.00	18/07	0.2	0.01	
		1990	437	72	68	43	0.06	12.4	03/02	0.00	08/05	0.1	0.00	
036011	**Stour Brook at Sturmer** C.A: 34.5 km²	**68-85**	**593**		**205**		**0.22**	**25.3**	**15/09 1968**	**0.02**	**18/07 1973**	**0.5**	**0.09**	**0.04**
M.A: NRA-A	Level: 55m Local Number:													
F.A.R: GEI	B.F.I: .37 Sensitivity: 29.8	1986	670	113	216	105	0.24	4.7	25/12	0.05	18/09	0.5	0.13	0.05
Comment: 'Essex' profile (modified Flat V Crump) weir with crest tapping, insensitive. Immediately d/s of Haverhill - urban runoff and STW discharges cause short, sharp peaks. Modular limit approx. 5.0 m^3s^{-1}. Adjustments were made for industrial and sewage effluent and groundwater abstractions from 1968 to 1976. # Rural, agricultural catchment, with the exception of Haverhill, at the head of the R. Stour. Mostly Boulder Clay with some of the underlying sand and gravel and Chalk outcropping.		1987	783	132	364	178	0.40	9.8	10/10	0.07	28/05	0.7	0.18	0.09
		1988	594	100	240	117	0.26	9.2	29/01	0.03	15/11	0.5	0.12	0.06
		1989	527	89	164	80	0.18	6.9	16/03	0.03	17/08	0.4	0.09	0.05
		1990	447	75	137	67	0.15	8.3	03/02	0.04	06/08	0.2	0.09	0.05
036012	**Stour at Kedington** C.A: 76.2 km²	**68-85**	**601**		**252**		**0.61**	**42.0**	**16/09 1968**	**0.01**	**08/08 1976**	**1.6**	**0.32**	**0.03**
M.A: NRA-A	Level: 53m Local Number:													
F.A.R: RGEI	B.F.I: .51 Sensitivity: 29.9	1986	649	108	214	85	0.52	9.9	25/12	0.06	28/08	1.0	0.31	0.14
Comment: 'Essex' profile (modified Flat V Crump) weir, insensitive. No spillway. Crest tapping prone to siltation making modular limit uncertain until 1970, when channel improved for Ely/Ouse Transfer Scheme making station full range. Ponding u/s above 11.5 m^3s^{-1}. Structure built on peat, some percolation beneath. Naturalised flows 1968-1976. Post '76 adjustments made for Ely/Ouse Transfer Scheme. # Rural catchment on Upper Stour. Boulder Clay overlying Chalk, some outcropping.		1987	778	129	324	129	0.78	18.1	10/10	0.11	05/07	1.6	0.33	0.16
		1988	616	102	239	95	0.57	16.7	29/01	0.08	09/07	0.9	0.32	0.14
		1989	522	87	446	177	1.08	12.8	16/03	0.12	07/05	2.6	0.52	0.19
		1990	453	75	698	277	1.69	15.6	03/02	0.13	04/01	3.7	0.94	0.18
036015	**Stour at Lamarsh** C.A: 480.7 km²	**72-85**	**586**		**151**		**2.31**	**61.0**	**02/02 1979**	**0.19**	**28/08 1976**	**4.6**	**1.20**	**0.54**
M.A: NRA-A	Level: 18m Local Number:													
F.A.R: RPGEI	B.F.I: .50 Sensitivity: 3.5	1986	644	110	151	100	2.31	28.3	31/12	0.64	12/10	4.4	1.33	0.76
Comment: Flat V weir with low flow sharp-crested rectangular notch. Flood banks contain approx. 35.0 m^3s^{-1}. No spillway. Breaching u/s may cause bypassing. Naturalised flows 1972-1976, since then adjustments needed for abstractions, discharges and PWS predominantly for Haverhill. Ely/Ouse Transfer Scheme adjustments already made. # Predominantly rural catchment except for Haverhill. Upper Chalk beneath whole catchment, covered mainly by Boulder Clay and London Clay in south.		1987	774	132	272	180	4.14			**1.00**	**15/07**	8.8	2.12	1.16
		1988	611	104	205	136	3.11	38.9	30/01	0.86	07/08	5.3	1.43	0.95
		1989	513	88	142	94	2.16	30.6	17/03	0.65	29/09	3.9	1.53	0.74
		1990	445	76	134	89	2.05	33.5	04/02	0.76	13/10	2.8	1.68	0.84

		Period	Rainfall (mm)	% of pre-1986	Runoff (mm)	% of pre-1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
037002	**Chelmer at Rushes Lock** C.A: 533.9 km²	**32..85**	**588**		**106**		**1.80**					**4.7**	**0.80**	**0.10**
M.A: NRA-A	Level: 11m Local Number:													
F.A.R: PGEI	B.F.I: .45 Sensitivity: 35.3	1986	627	107	152	143	2.58			0.48	01/08	5.9	1.55	0.59
Comment: Sharp-crested, shallow V profile weir (insensitive), replaced broad-crested timber weir in 1972. Complex hydrometric history. Weir constructed to supply head for lock (navigable river), discharge through lock not measured. Weir repaired in 1982 because of serious leekage. No accurate measure of low or high flow, upper limit is 0.7m (19.99 m^3s^{-1}). Bypassing begins at 0.57m. Flows naturalised from 1932 to 1976. # Rural catchment apart from Chelmsford, Brentwood and Billericay. London Clay overlain by semi-pervious Boulder Clay.		1987	695	118	195	184	3.29			0.50	16/08	7.2	1.89	0.74
		1988	634	108	164	155	2.77			0.37	16/08	6.6	1.32	0.55
		1989	554	94	101	95	1.71			0.31	18/08	3.7	0.85	0.40
		1990	470	80	83	78	1.41			0.23	29/07	2.5	0.66	0.32
037003	**Ter at Crabbs Bridge** C.A: 77.8 km²	**32-85**	**579**		**103**		**0.25**	**10.1**	**22/11 1974**	**0.00**	**06/08 1976**	**0.5**	**0.12**	**0.03**
M.A: NRA-A	Level: 15m Local Number:													
F.A.R: PI	B.F.I: .49 Sensitivity: 28.3	1986	599	103	111	108	0.27	4.5	03/01	0.05	24/08	0.5	0.18	0.08
Comment: Trapezoidal flume with throat tapping, replaced less accurate station - Hatfield Peverel, 900m d/s, in 1964. Theoretically rated. Modular limit 0.95m, no level yet recorded above 1.6m (structure full). Hatfield Peverel record held with this station - 1932 to 1964. Naturalised flows - 1964 to 1976. Minor surface water abstractions for spray irrigation, small discharges from STW but net export through PWS. # Rural, agricultural catchment on London Clay overlain by Boulder Clay.		1987	665	115	177	172	0.44	5.8	15/10	0.07	12/07	0.7	0.25	0.12
		1988	639	110	186	181	0.46			0.07	30/09	0.9	0.20	0.11
		1989	549	95	105	102	0.26	4.0	17/03	0.04	25/07	0.5	0.14	0.06
		1990	459	79	80	78	0.20	6.4	03/02	0.01	18/09	0.4	0.09	0.02
037005	**Colne at Lexden** C.A: 238.2 km²	**59-85**	**570**		**135**		**1.02**	**22.6**	**02/02 1979**	**0.03**	**30/08 1965**	**2.2**	**0.56**	**0.20**
M.A: NRA-A	Level: 8m Local Number:													
F.A.R: RPI	B.F.I: .52 Sensitivity: 9.7	1986	610	107	120	89	0.91	6.9	26/12	0.22	16/08	1.8	0.65	0.25
Comment: Compound trapezoidal flume with downstream level recorder. Occasional weedgrowth problems. Spillway flow commences at 17.0 m^3s^{-1} (1.75m), flows above this are estimated. Naturalised flows for period 1959 to 1976. # Rural catchment. Upper Chalk with surface cover of semi-pervious Boulder Clay on which pasture and arable cultivation predominate.		1987	704	124	216	160	1.63	**24.8**	**11/10**	0.35	07/07	3.0	0.91	0.44
		1988	616	108	200	148	1.51	21.1	29/01	0.25	14/09	2.7	0.71	0.36
		1989	529	93	115	85	0.87	12.4	17/03	0.19	06/08	1.7	0.45	0.24
		1990	457	80	92	68	0.69	17.4	04/02	0.11	08/08	1.3	0.39	0.15
037006	**Can at Beach's Mill** C.A: 228.4 km²	**62-85**	**588**		**173**		**1.25**			**0.06**	**26/08 1976**	**2.8**	**0.57**	**0.19**
M.A: NRA-A	Level: 23m Local Number:													
F.A.R: EI	B.F.I: .42 Sensitivity: 8.1	1986	632	107	186	108	1.35			0.16	02/08	3.1	0.74	0.23
Comment: Triple throated compound flume (built within mill race) with levels recorded in each, used for rating. Trapezoidal centre section for low flows. Limit of station - 35 m^3s^{-1}. Spillway flow starts at 2.0m - very significant part of flow, allowance for this not made in record. Naturalised flows from 1962 to 1976. Adjustments needed for industrial and sewage effluent. # Rural, agricultural catchment just west of Chelmsford, 350m d/s of confluence with R. Wid. London Clay overlain with Boulder Clay in north, exposed in south.		1987	712	121	265	153	1.92			0.22	11/07	3.8	0.83	0.35
		1988	622	106	209	121	1.51			0.24	30/08	3.5	0.58	0.26
		1989	552	94	130	75	0.94			0.15	17/06	1.9	0.43	0.21
		1990	481	82	105	61	0.76			0.13	03/08	1.3	0.33	0.16
037007	**Wid at Writtle** C.A: 136.3 km²	**64-85**	**610**		**196**		**0.85**	**37.1**	**21/11 1974**	**0.05**	**26/08 1976**	**2.0**	**0.37**	**0.12**
M.A: NRA-A	Level: 27m Local Number:													
F.A.R: EI	B.F.I: .40 Sensitivity: 19.5	1986	640	105	224	114	0.97	20.1	03/01	0.14	15/08	2.2	0.55	0.17
Comment: 'Essex' profile (modified Flat V Crump) weir. Rated spillway starts at 1.25m. Full range, modular station.Weir began to subside in 1991. Flow during summer months consists predominantly of STW discharge, of which approximately 0.08 m^3s^{-1} is derived from outside the catchment, adjustments needed for this. Flows naturalised from 1964 to 1976.Responsive regime. # Low-lying, rural catchment on London Clay with scattered areas of Boulder Clay above.		1987	720	118	312	159	1.35	26.2	15/10	0.19	10/07	2.8	0.61	0.25
		1988	618	101	251	128	1.08	27.1	29/01	0.17	16/08	2.3	0.42	0.19
		1989	542	89	150	77	0.65	14.8	20/12	0.11	17/06	1.4	0.32	0.15
		1990	474	78	129	66	0.56	25.3	03/02	0.12	03/08	1.0	0.25	0.14
037008	**Chelmer at Springfield** C.A: 190.3 km²	**65-85**	**585**		**169**		**1.02**	**27.2**	**10/12 1982**	**0.13**	**27/08 1976**	**2.0**	**0.56**	**0.27**
M.A: NRA-A	Level: 23m Local Number:													
F.A.R: PGI	B.F.I: .55 Sensitivity: 28.1	1986	638	109	168	99	1.01	9.6	03/01	0.25	01/08	2.0	0.74	0.33
Comment: 'Essex' profile (modified Flat V Crump) weir. Full range station, no drowning. Naturalised flows from 1965 to 1976. Surface water abstraction mainly for spray irrigation, some industrial purposes. Groundwater abstractions from confined Chalk aquifer for PWS and industrial activities. # Rural catchment, gauging station in northern suburb of Chelmsford. Boulder Clay over London Clay, all underlain by Upper Chalk.		1987	691	118	237	140	1.43	20.6	16/10	0.38	09/07	2.6	0.87	0.46
		1988	645	110	239	141	1.44	26.2	29/01	0.38	26/06	2.5	0.76	0.47
		1989	564	96	160	95	0.97	15.2	17/03	0.35	09/08	1.7	0.58	0.38
		1990	470	80	136	80	0.82	25.0	04/02	0.24	03/08	1.4	0.44	0.28
037009	**Brain at Guithavon Valley** C.A: 60.7 km²	**62-85**	**581**		**189**		**0.36**	**9.6**	**22/11 1974**	**0.09**	**27/07 1964**	**0.6**	**0.26**	**0.15**
M.A: NRA-A	Level: 16m Local Number:													
F.A.R: GEI	B.F.I: .67 Sensitivity: 12.2	1986	594	102	204	108	0.39	3.5	03/01	0.17	02/08	0.7	0.32	0.19
Comment: 'Essex' profile (modified Flat V Crump) weir with throat tapping and high flow spillway. Full range station. Drowning occurs at very low levels but with minimal effect. Station prone to vandalism. Some abstractions for agriculture; naturalised flows available from 1962 to 1976. # Mainly rural catchment, except for Witham and Braintree, on a tributary of the R. Blackwater. Boulder Clay over London Clay.		1987	665	114	241	128	0.46	**11.5**	**16/10**	0.17	05/11	0.6	0.31	0.20
		1988	624	107	297	157	0.57	9.7	29/01	0.24	16/08	0.9	0.37	0.25
		1989	535	92	194	103	0.37	3.4	17/03	0.19	08/08	0.6	0.29	0.20
		1990	454	78	170	90	0.33	8.9	03/02	0.14	16/08	0.5	0.22	0.16
037010	**Blackwater at Appleford Bridge** C.A: 247.3 km²	**62-85**	**573**		**150**		**1.18**	**21.6**	**11/12 1982**	**0.09**	**06/10 1964**	**2.4**	**0.70**	**0.31**
M.A: NRA-A	Level: 15m Local Number:													
F.A.R: RPGI	B.F.I: .56 Sensitivity: 9.3	1986	612	107	140	93	1.10	9.6	03/01	0.25	08/10	2.3	0.80	0.35
Comment: Double throated trapezoidal flume with throat tappings and a high flow rated spillway starting at 1.80m. Drowning starts at 1.2m (13.0 m^3s^{-1}), degree of drowning variable. Naturalised flows from 1962-1976. Intermittently affected, since 1971, by Ely/Ouse Transfer Scheme pumping. Abstractions from both Chalk and gravel aquifers for PWS. # Rural catchment. Boulder Clay over London Clay, with Chalk in the headwaters.		1987	693	121	212	141	1.66	**26.1**	**11/10**	0.35	15/07	3.1	0.96	0.47
		1988	613	107	210	140	1.65	**26.8**	**29/01**	0.31	15/08	2.7	0.84	0.48
		1989	530	92	145	97	1.14	11.1	17/03	0.25	06/08	1.8	0.97	0.37
		1990	444	77	161	107	1.26	16.9	04/02	0.17	24/07	1.9	1.01	0.44
037011	**Chelmer at Churchend** C.A: 72.6 km²	**63-85**	**585**		**152**		**0.35**	**17.1**	**10/12 1982**	**0.01**	**14/07 1976**	**0.8**	**0.14**	**0.06**
M.A: NRA-A	Level: 52m Local Number:													
F.A.R: I	B.F.I: .43 Sensitivity: 17.0	1986	667	114	157	103	0.36	5.1	25/12	0.06	24/08	0.8	0.20	0.07
Comment: Trapezoidal flume (with central division wall in stilling basin) with throat recorder and spillway for flows over 1.42m. Measures up to the 1 in 10 year flood (approx. 1.69m) above which bypassing occurs. Drowning minimal. Naturalised flows from 1963 to 1976. Minimal adjustments needed. # Rural, upland (for East Anglia) catchment at head of R. Chelmer. Upper quarter of catchment is Chalk, remainder is London Clay, both overlain by Boulder Clay. Responsive.		1987	715	122	232	153	0.54	**19.1**	**09/10**	0.07	13/07	1.0	0.25	0.10
		1988	641	110	216	142	0.50	12.7	29/01	0.09	18/09	0.9	0.21	0.11
		1989	564	96	135	89	0.31	11.4	16/03	0.04	08/09	0.6	0.13	0.07
		1990	463	79	103	68	0.24	13.5	03/02	0.03	08/08	0.4	0.09	0.04
037012	**Colne at Poolstreet** C.A: 65.1 km²	**63-85**	**573**		**132**		**0.27**	**18.8**	**13/03 1969**	**0.00**	**24/09 1976**	**0.7**	**0.06**	**>0.00**
M.A: NRA-A	Level: 43m Local Number:													
F.A.R: GI	B.F.I: .27 Sensitivity:	1986	644	112	121	92	0.25	5.2	25/12	0.00	08/10	0.7	0.12	0.01
Comment: Trapezoidal flume with throat tapping. V notch plate installed in summer to measure low flows. High flow spillway (above 1.34m). Above 1.6m flows are estimated as major bypassing occurs. Rarely non-modular. Naturalised flows from 1963-1976. Great Yeldham PWS borehole may influence flows, but unquantifiable. Period of Ely/Ouse Transfer Scheme pumping in 1982. # Rural, upland (for East Anglia) catchment of the R. Colne. Upper Chalk underlies whole catchment, London Clay present in southern half, all overlain with Boulder Clay.		1987	739	129	245	186	0.51	**19.2**	**25/08**	0.04	10/05	1.0	0.19	0.05
		1988	605	106	168	127	0.34	11.7	29/01	0.01	08/09	0.7	0.09	0.01
		1989	537	94	96	73	0.20	3.7	26/02	0.00	04/08	0.5	0.04	>0.00
		1990	440	77	66	50	0.14	11.3	03/02	0.00	04/08	0.3	0.02	

	Period	Rainfall (mm)	% of pre-1988	Runoff (mm)	% of pre-1988	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
037013 **Sandon Brook at Sandon Bridge** C.A: 60.6 km²	**63-85**	*564*		**151**		**0.29**	**15.0**	**09/12 1982**	**0.01**	**30/06 1976**	**0.6**	**0.10**	**0.04**
M.A: NRA-A Level: 20m Local Number:													
F.A.R: SRE B.F.I: .34 Sensitivity: 32.6	1986	609	108	160	106	0.31	6.4	03/01	0.04	12/10	0.8	0.15	0.05
Comment: 'Essex' profile (modified Flat V Crump) weir with crest tapping. Insensitive. Modular limit approx 0.6m. Subject to weed growth and accretion. CA excludes 13.7 km² draining to Hanningfield Reservoir 10km u/s. Naturalised flows (1963-1976) account for reservoir compensation water (0.011 m^3s^{-1}) and storm overflows. Minor additions from industrial effluent. # Rural catchment. Tributary of R. Chelmer. Glacial sand and gravel form high ground in NE over London Clay. Patches of Boulder Clay in S.	1987	670	119	216	143	0.41	11.8	15/10	0.04	12/07	0.9	0.18	0.06
	1988	628	111	215	142	0.41	**15.7**	**29/01**	0.03	02/10	0.8	0.12	0.05
	1989	533	95	106	70	0.20	6.2	16/03	0.03	26/11	0.4	0.12	0.04
	1990	443	79	82	54	0.16	10.2	03/02	0.01	16/09	0.2	0.06	0.03
037016 **Pant at Copford Hall** C.A: 62.5 km²	**65-85**	**616**		**171**		**0.34**	**16.8**	**16/09 1968**	**0.00**	**26/08 1976**	**0.9**	**0.10**	**0.02**
M.A: NRA-A Level: 58m Local Number:													
F.A.R: RGI B.F.I: .37 Sensitivity: 29.7	1986	668	108	140	82	0.28	4.4	25/12	0.02	15/08	0.7	0.13	0.02
Comment: 'Essex' profile (modified Flat V Crump) weir (insensitive) with crest tapping. Measures upto 12.0 m^3s^{-1}, flows above this are estimated because of the spillway. Naturalised flows 1965-1976. Intermittent pumping of Ely/Ouse Transfer Scheme has major effect on station being only 5km d/s of the Great Sampford Outfall. # Rural tributary of the R. Blackwater. Boulder Clay over glacial gravel on Upper Chalk, gravel exposed along the whole river valley.	1987	752	122	239	140	0.47	14.7	09/10	0.03	14/07	1.0	0.15	0.05
	1988	610	99	166	97	0.33	13.4	29/01	0.01	06/09	0.7	0.08	0.02
	1989	538	87	174	102	0.35	8.6	16/03	0.02	19/06	1.0	0.12	0.03
	1990	449	73	309	181	0.61	11.5	03/02	0.02	11/04	1.3	0.38	0.03
037017 **Blackwater at Stisted** C.A: 139.2 km²	**69-85**	**582**		**170**		**0.75**	**17.5**	**06/05 1978**	**0.05**	**06/08 1976**	**1.5**	**0.40**	**0.16**
M.A: NRA-A Level: 32m Local Number:													
F.A.R: RGEI B.F.I: .50 Sensitivity: 17.8	1986	639	110	136	80	0.60	5.6	23/01	0.10	06/09	1.4	0.41	0.14
Comment: 'Essex' profile (modified Flat V Crump) weir with crest tapping. No spillway. Modest modular limit affected by weed growth. Urban runoff from Braintree. Naturalised flows 1969-1976. Minor adjustments needed for ground and surface water abstractions; sewage and industrial effluent and Ely/Ouse discharges, net affect - minor export of water. # Predominantly rural, plus Braintree. Upper two-thirds of catchment -Chalk, remainder London Clay (exposed in valleys), all overlain with Boulder Clay and glacial gravel.	1987	713	123	217	128	0.96	**17.7**	**10/10**	0.15	14/07	1.8	0.48	0.21
	1988	612	105	188	111	0.83	15.3	30/01	0.10	14/08	1.5	0.37	0.17
	1989	532	91	147	86	0.65	13.3	17/03	0.12	05/08	1.1	0.48	0.14
	1990	443	76	188	111	0.83	14.6	04/02	0.08	22/07	1.4	0.56	0.18
037020 **Chelmer at Felsted** C.A: 132.1 km²	**70-85**	**581**		**158**		**0.66**	**16.2**	**10/12 1982**	**0.06**	**10/07 1976**	**1.3**	**0.32**	**0.16**
M.A: NRA-A Level: 40m Local Number:													
F.A.R: EI B.F.I: .52 Sensitivity: 18.1	1986	652	112	156	99	0.65	6.3	25/12	0.17	27/08	1.4	0.43	0.20
Comment: 'Essex' profile (modified Flat V Crump) weir with crest tapping measuring upto 1.21m - limit of reliable gauging, above this flows estimated. Flood plain storage starts at 1.1m, no spillway. Drowning commences at 0.6m, its severity variable. Naturalised flows 1970-1976. Minimal abstractions, adjustments needed for STW and industrial effluent discharges. # Rural, agricultural catchment. Boulder Clay and glacial gravel covering Chalk in extreme north, London Clay elsewhere.	1987	697	120	224	142	0.94	**16.4**	**10/10**	0.17	03/10	1.7	0.52	0.23
	1988	646	111	218	138	0.91	**20.5**	**29/01**	0.17	04/10	1.7	0.45	0.23
	1989	565	97	140	89	0.58	11.7	16/03	0.15	22/08	1.1	0.29	0.19
	1990	466	80	120	76	0.50	15.4	03/02	0.12	07/08	1.0	0.23	0.14
037021 **Roman at Bounstead Bridge** C.A: 52.6 km²	**70-85**	**547**		**126**		**0.21**	**9.1**	**21/11 1974**	**0.04**	**05/10 1978**	**0.4**	**0.13**	**0.06**
M.A: NRA-A Level: 5m Local Number:													
F.A.R: GEI B.F.I: .59 Sensitivity: 24.4	1986	583	107	119	94	0.20	4.4	05/07	0.06	01/07	0.3	0.16	0.08
Comment: Initially a temporary broad-crested weir 3/65-9/69 with low flow V notch (data suspect). 'Essex' profile (modified Flat V Crump) weir with crest tapping from 11/3/70. Low modular limit (0.4m); affected by weed growth and siltation (structure drowned from winter 1990/91 to May 92). Limited overspill starts at 0.35m - 3.0 m^3s^{-1}. Flows naturalised 1970-1976. # Rural catchment in conservation area. London Clay covered with glacial gravel and Boulder Clay in the upper third.	1987	681	124	221	175	0.37					0.6	0.21	0.11
	1988	623	114	276	219	0.46	**10.1**	**29/01**	0.13	17/08	0.8	0.23	0.15
	1989	512	94	147	117	0.25	5.6	16/12	0.07	03/11	0.5	0.14	0.09
	1990	454	83	124	98	0.21	6.4	03/02	0.05	08/08	0.3	0.11	0.06
037022 **Holland Brook at Thorpe le Soken** C.A: 54.9 km²	**70-85**	**534**		**108**		**0.19**	**10.0**	**09/12 1982**	**0.00**	**27/08 1976**	**0.4**	**0.06**	**0.01**
M.A: NRA-A Level: 1m Local Number:													
F.A.R: GI B.F.I: .41 Sensitivity: 60.2	1986	595	111	110	102	0.19	4.5d	08/01	0.00	20/08	0.4	0.10	0.01
Comment: 'Essex' profile (modified Flat V Crump) weir (very insensitive) with crest tapping. Tidal influence very important, gauging limits variable due to d/s tidal conditions, with drowning starting at very low levels. Very gentle river gradient makes siltation a major problem, accompanied by weed growth. Flows naturalised 1970-1976, abstractions significant at low flows. # Rural catchment covered with gravel sands; gravel and loam with London Clay being exposed in valleys and NE of the area.	1987	647	121	327	303	0.57	**13.3**	**16/10**	0.02	09/07	1.0	0.18	0.04
	1988	635	119	294	272	0.51	12.0	22/01	0.02	30/08	0.8	0.13	0.03
	1989	448	84	105	97	0.18					0.5	0.03	0.01
	1990	463	87	43	40	0.07	5.5	03/02	**0.00**	**16/06**	0.2	0.02	>0.00
037024 **Colne at Earls Colne** C.A: 154.2 km²	**71-85**	**561**		**138**		**0.67**	**18.8**	**02/02 1979**	**0.05**	**27/08 1976**	**1.4**	**0.32**	**0.12**
M.A: NRA-A Level: 25m Local Number:													
F.A.R: GEI B.F.I: .47 Sensitivity: 20.1	1986	617	110	118	86	0.58	6.9	25/12	0.10	20/08	1.2	0.37	0.13
Comment: 'Essex' profile (modified Flat V Crump) weir with crest tapping prone to siltation. Flows are estimated when siltation severely affects response of station. Low modular limit - approx. 0.5m. No spillway. Naturalised flows 1971-76. Adjustments now needed for additions and abstractions. # Predominantly rural catchment, just d/s of Halstead. Upper Chalk underlies whole catchment, mostly overlain by London Clay with Boulder Clay above.	1987	712	127										
	1988	616	110	200	145	0.97	16.3	30/01	0.16	11/09	1.8	0.42	0.20
	1989	542	97	114	83	0.56	12.9	17/03	0.12	24/08	1.2	0.27	0.14
	1990	453	81	88	64	0.43	15.5	04/02	0.07	06/08	0.8	0.21	0.09
037034 **Mardyke at Stifford** C.A: 90.7 km²	**74..85**			**149**		**0.43**	**20.0**	**17/05 1975**	**0.00**	**02/07 1975**	**0.9**	**0.13**	**0.05**
M.A: NRA-A Level: m Local Number:													
F.A.R: GEI B.F.I: .26 Sensitivity: 28.2	1986			106	71	0.30	8.1	03/01	0.05	30/06	0.6	0.15	0.05
Comment: 'Essex' profile (modified Flat V Crump) weir with downstream tapping. Tidal influence very important. Low modular limit, degree of drowning variable, dependant on tidal conditions downstream. Can be 100% drowned.	1987			287	193	0.83	**26.5**	**10/10**	0.03	15/01	1.9	0.20	0.08
	1988			172	115	0.49	23.6	29/01	0.03	17/11	0.8	0.13	0.05
	1989			83	56	0.24	16.2	05/04	0.03	25/06	0.3	0.10	0.05
	1990			74	50	0.21	16.7	03/02	0.02	29/05	0.3	0.07	0.05

Summary of Archived Data – 1

Gauged daily flows, monthly peaks and monthly rainfall

Stn. number	Gauged daily flows, monthly peaks and rainfall			
029001	60s	eBBAAAAAAB	70s	AAAAAAAAAE
	80s	AAAAAAAAAA	90s	AAe
029002	60s	–eAAAAABA	70s	AAAAADAAAA
	80s	AAAAAAEAAA	90s	AAe
029003	60s	·····EA	70s	AAAAAAAAAA
	80s	AAAAAAAAAA	90s	A†
029004	60s	·····EA	70s	AAAAAAAAAA
	80s	AAAAAAAAAE	90s	AAe
029005	70s	·EAAAAAAAA	80s	AAAAAAAAAA
	90s	AAe		
029009	70s	···eAAAAA	80s	AAAAAAAAAA
	90s	AAe		
030001	50s	·····E	60s	AAAAAAAAAA
	70s	AAAAAAAAAA	80s	AAAAAAAAAA
	90s	AAe		
030002	60s	eAAAAAAAAA	70s	AAAAAAAAE†
	80s	EEEEAEAA††	90s	††
030003	60s	–eAAAAABE	70s	AAAAAAAAAA
	80s	AAAAABAAAA	90s	AAe
030004	60s	–eEABAAAB	70s	AAAAAAAAAE
	80s	AAAAAAAAAA	90s	AAe
030005	60s	·····fc	70s	cccccccccc
	80s	ccccf–a		
030006	70s	···EBBBAA	80s	AEEAAAAAAA
	90s	AAe		
030011	70s	·EAAAAAAAA	80s	AAAAAADAA
	90s	AAe		
030012	70s	EAAAAAAAAA	80s	DEBABBEEEA
	90s	AAe		
030013	70s	·····eAAA	80s	AAAAAAAAAA
	90s	AAe		
030014	70s	–eEAABAAA	80s	BAAAAAAAAE
	90s	††		
030015	70s	·····eAAA	80s	AAAAAAAAAA
	90s	AAe		
030017	70s	·····eA	80s	AAAAAAAAAA
	90s	AAe		
030018	80s	···eaAaaaa	90s	AAe
031001	30s	·····fCF	40s	CCCCCf···
	50s	···fBBBBBB	60s	BBBBBBAAEA
	70s	AABAAAAEAB	80s	BAAAAAaabf
	90s	ccf		
031002	30s	·····†	40s	·····
	50s	·····	60s	fCCCCCCCCc
	70s	CCCCCCCCCC	80s	CCCCCCAAAA
	90s	AEe		
031004	60s	·····fcc	70s	cccccccccc
	80s	ccccccaada	90s	ade
031006	60s	·····EAA	70s	BAAAAAAAAA
	80s	AAAAAAAAAA	90s	AEe
031007	60s	·····EE	70s	BBCCCBCBAA
	80s	AAAAAAAAAD	90s	DEe
031010	60s	·····DA	70s	ABAABAAAAA
	80s	AAAAAABAAA	90s	AAe
031013	60s	·····E	70s	EEBBBEEEDA
	80s	DEEEEEEEEE	90s	EEe
031016	60s	·····E	70s	ABAAAAAAAA
	80s	AAAAAAAAAA	90s	AAe
031017	70s	EEBEEBEEEE·	80s	EEEeee††††
	90s	††		
031020	70s	eEEBBEEFEE	80s	EEEeee††††
	90s	††		
031021	70s	eEAEEBBEAA	80s	·AEEEEEEEEE
	90s	EAe		
031022	60s	·····†	70s	EEEEBBEEEE
	80s	EEEeeeEEEE	90s	EEe
031023	70s	··EBABBBAB	80s	AAAAAAAAAA
	90s	AAe·		
031024	70s	·EAABBBBBB	80s	BBAaaaaaae
	90s	E†		
031025 ·	70s	·····eA	80s	EAAAAAABAA
	90s	AAe		
031026	70s	·†††††††EA	80s	AAAAAAAAAA
	90s	AEe		
031028	80s	··fbaeAAAE	90s	AAe
032001	30s	·····f	40s	eBAAAAAAAA
	50s	ABAAAAAAAB	60s	BAAABAABCC
	70s	BAAABBCCAA	80s	BAAAAAAAEE
	90s	E†		
032002	30s	·····eA	40s	AABABABABA
	50s	BABABBAAAB	60s	AABBAAAAAA
	70s	BAAAAAAAAA	80s	AAAAAAAAAA
	90s	AEe		
032003	30s	·····eA	40s	ABBAABAAAB
	50s	AAAAABABAB	60s	BBAABEAAAA
	70s	AAAAAAAADA	80s	AAAAAAAAEA
	90s	AAe		
032004	40s	···eAABAAA	50s	AAAAAAAAAB
	60s	BBBAEEAAAB	70s	AAAAAAEAAA
	80s	AAAAAAABAA	90s	AAe
032006	30s	·····e	40s	BAAABAABAA
	50s	ABAAAABBBB	60s	BBBBAAAAAb
	70s	ccccccccCCC	80s	CcccccAAAA
	90s	AAe		
032007	30s	·····e	40s	AAAAABAABA
	50s	ABAABABAAA	60s	BBAAAABAAb
	70s	cccccccCCC	80s	BcccccAAAD
	90s	DDe		
032008	40s	····eAAAB	50s	ABAAABABAA

Stn. number	Gauged daily flows, monthly peaks and rainfall			
033004	30s	·····fCCC	40s	CCCCCCFFCC
	50s	CCCCCBABCC	60s	CCCCCCFCFC
	70s	CCCCFCCCCC	80s	CFCCCFF†††
	90s	††		
033005	50s	·cbCCCCCCC	60s	BAAAABBCCB
	70s	BCBBBBBBCB	80s	BBBBBBBBBB
	90s	BE		
033006	50s	·····eBCC	60s	BAAAAAABBB
	70s	ABAABBABAB	80s	ABBBBBBBBA
	90s	AAe		
033007	50s	···eBCCCCC	60s	CCCCCBBBAB
	70s	BAAAAABAAA	80s	AABBAAAAAA
	90s	BBe		
033008	50s	·····fc	60s	cbaaabbbf·
	70s	·····	80s	·····††††
	90s	††		
033009	50s	····eABCC	60s	BAEAAAAABA
	70s	BABBAAAAAA	80s	BAAABAAAAE
	90s	††		
033011	40s	·····ff	50s	ffffcfccff
	60s	eaAAAAAAEA	70s	BAAAAAAAAA
	80s	BAAAAAABBA	90s	AAe
033012	60s	eAAAAAAAEA	70s	BAAAAAAAAA
	80s	AAAAAAAAAA	90s	AAe
033013	40s	·····f	50s	ffffccccff
	60s	eAAAAAAAAA	70s	AAAAAAAAAA
	80s	AAAABABAAA	90s	ABe
033014	60s	eAAAAAAAAA	70s	ABAAAAAAAA
	80s	AAAAAAAAAB	90s	BEe
033015	60s	··AAAAAAAA	70s	AAAAAAAABB
	80s	DAAAAAAAEB	90s	††
033016	50s	·····f	60s	bAAEEEFEAB
	70s	BCCCCCCCCC	80s	CCCF††
033018	60s	··EAAAAEEA	70s	AAAAAAAAAA
	80s	BAAABBAABE	90s	BAe
033019	50s	·····††††	60s	††eAAAAAEA
	70s	ABAAAAAAAB	80s	AAAAAABAAA
	90s	AAe		
033020	50s	·····†††	60s	††·eAEBBEE
	70s	EBBBBAAAAA	80s	AABAABAAAB
	90s	BAe		
033021	60s	··eAAAAABB	70s	BBBAAAAAAA
	80s	BAABABBAAB	90s	EBe
033022	50s	·····f	60s	ebeeeBAAAB
	70s	AAAAAAAAAA	80s	AAAAAABBBA
	90s	BBe		
033023	60s	··eAAAAAEA	70s	AABAAAAAAA
	80s	AAAAAABBAB	90s	BE
033024	40s	·····e	50s	EEBCCCFCCC
	60s	CCCeAAAAAA	70s	ABAAAAAAAA
	80s	AAAAAAAAAA	90s	ABe
033025	60s	···fEAAAAA	70s	AAEABCF†††
033026	70s	fcCCCCCCCC	80s	CCCCCCCCCC
	90s	CC!		
033027	60s	·····eAABE	70s	BBAAAAAAAA
	80s	ABBAAAAABB	90s	BAe
033028	60s	·····EAEE	70s	ABAAAAAAAA
	80s	ABAAAABAAE	90s	BAe
033029	60s	·····eAAEA	70s	ABCAAAABAA
	80s	AAAABABAAA	90s	BBe
033030	50s	·····fcc	60s	cccf··eaaa
	70s	aababaaaaa	80s	e·····††††
	90s	††		
033031	70s	·AAABAABAA	80s	AAAAAAAAAA
	90s	F†		
033032	60s	·····EAAAA	70s	AAAAABAAAA
	80s	AAAAAAAAAA	90s	AAe
033033	70s	···EAAAAAA	80s	AAAAAAABAA
	90s	AAe		
033034	60s	·····†EA	70s	AAAAAAAAAA
	80s	AAAAAAAAAB	90s	BAe
033035	50s	·····fC	60s	CCCCCCCCCC
	70s	CCCCCCC†††	80s	††††††CCCC
	90s	CC		
033037	60s	·····E	70s	ABAAAAAAAA
	80s	AAAAABBBAB	90s	BAe
033039	70s	··EAAADBAA	80s	AABBABABBB
	90s	BAe		
033040	60s	·····fffff	70s	CBAAAAAAAA
	80s	AAAABBabaa	90s	BBe
033044	60s	·····fcc	70s	ccCABBAAAA
	80s	ABAAAABBBA	90s	BAe
033045	60s	·····fcc	70s	ccCAAAAAAA
	80s	BABAAABBAA	90s	BAe
033046	60s	·····fcc	70s	cCCAABAAAA
	80s	BAAAABBAAA	90s	AAe
033048	60s	·····f	70s	cccAAAAAAA
	80s	BBBAAaAAAA	90s	BE
033049	70s	···aaaaaaa	80s	e·····††††
	90s	††		
033050	60s	fffffffccc	70s	f···FCCCCC
	80s	BCCBaeAAAB	90s	ABe
033051	60s	···fCCCCC	70s	CAAABAAAAA
	80s	AAAAAAAAAA	90s	E†
033052	60s	·†·ccc·ccc	70s	caeeAAAABA
	80s	AAABAAAAAC	90s	††
033053	40s	·····f	50s	fIccccccccc
	60s	ccclcffbcc	70s	cccccccccc
	80s	ccbaabaa		
033054	70s	·····fCAA	80s	AABAABAAAA
	90s	AAe		
033055	60s	···fcccf··	70s	·····fBAA ·

Stn. number	Gauged daily flows, monthly peaks and rainfall			
034003	50s	·····e	60s	AAAAAAAAAA
	70s	AAAAAAAAAB	80s	AABAAAAABA
	90s	BAe		
034004	60s	eAAAAAAAAA	70s	AAAAAAAAAB
	80s	ABAAAAABEC	90s	CCf
034005	60s	·eAAAAAAAA	70s	AAAAAAAAAB
	80s	ABAAAAAEAB	90s	EAe
034006	60s	···eAAAbAA	70s	AAAAAAAAAA
	80s	AAAAAAAAAA	90s	BAe
034007	60s	·····eAAB	70s	AAAAAAAAAA
	80s	AAAAAAAABE	90s	EBe
034008	60s	·····EABA	70s	AAAEEAAAAF
	80s	FCFDBBBEED	90s	FCf
034010	60s	·····EA	70s	AAAAAAAAAA
	80s	EABAAEAAAE	90s	EAe
034011	60s	·····AAA	70s	ABAABAABBE
	80s	ABAAAAAABA	90s	EEe
034012	60s	·····eAAA	70s	AADABAAAAA
	80s	AAAAAAAABA	90s	AAe
034013	70s	··EEEAEADB	80s	ADEDDEEEEE
	90s	ABe		
034014	60s	·····f	70s	cfccfccfIc
	80s	ccffcbCAAC	90s	EC
034018	70s	··FFCCADDE	80s	AAAAAEAEAB
	90s	BAe		
034019	70s	···EAAAAA	80s	AAAAAAAABE
	90s	EAe		
035001	60s	·†††FEE†††	70s	†††††FFCFE
	80s	befababbe		
035002	60s	···eAAAAA	70s	AAAABAEAAB
	80s	AAAAAAABAE	90s	EAe
035003	60s	·eAAAAAAAA	70s	ABAAAAAAAA
	80s	ABBAAAaaeA	90s	EEe
035004	60s	·····EAAAA	70s	AAAAAAAAAB
	80s	ABBAAAAAEE	90s	EAe
035008	60s	···ffEAAA	70s	AAAAAAAAAA
	80s	ABBAAAAAEB	90s	BBe
035010	60s	·····e	70s	AAAAAAAAAE
	80s	ABBAAAaabb	90s	aae
035013	60s	·····†	70s	EAAAAAAAAB
	80s	ABAAAAAAEE	90s	EEe
035014	40s	·····fc	50s	cfcffcccc
	60s	ccccccccff	70s	·····
	80s	·····†	90s	††
036001 ·	20s	·····CC	30s	†FCCCCCCCC
	40s	CCCCCCCCCC	50s	CCCCCCBAAA
	60s	BBBAABAAAA	70s	BBBBABCCCC
	80s	CCCCCCCCCC	90s	CCf
036002	60s	eAABAAAABA	70s	AAAAAAAAAA
	80s	AAAAAAAAAA	90s	AAe
036003	60s	fBAAAAAAAA	70s	AAAAAAAAAA
	80s	AAAAAAAAAA	90s	AAe
036004	60s	·····fBAAA	70s	AAAAAAAAAA
	80s	AAAAAAAAAA	90s	AAe
036005	60s	··eBAAAAAA	70s	AAAAAAAAAA
	80s	AAABAAAAAA	90s	AAe
036006	60s ·	··eBABAAAA	70s	AAAAAAAAAA
	80s	AAAAAAAAAA	90s	AAe
036007	60s	fCCFBDABAA	70s	AAAAAAAAAA
	80s	AAAAABAAAA	90s	EAe
036008	60s	EAAAABAAAA	70s	AAAAAAAAAA
	80s	AAAAAAAAAA	90s	AAe
036009	60s	·····EA	70s	AAAAAAAAAA
	80s	AAAAAAAAAA	90s	AAe
036010	60s	·····EA	70s	AAAAAAAAAA
	80s	AAAAAAAAAA	90s	AAe
036011	60s	·····EA	70s	AAAAAAAAAA
	80s	AAAAAAAAAB	90s	ABe
036012	60s	·····EA	70s	AAAAAAAAAA
	80s	AAAAAAAAAA	90s	AAe
036015	70s	··EAAAAAAA	80s	AAABAAAEAA
	90s	AAe		
037002	30s	··FCCCCBBB	40s	BBABABABAA
	50s	BBBBBBBEBB	60s	BEBBABBBAA
	70s	BAAAAAAAAA	80s	AAAAAAAAAA
	90s	AAe		
037003	30s	··FCCCCCCC	40s	CCCCCCCCCC
	50s	BAAAABBBBA	60s	BBABAAAAAA
	70s	AAAAAAAAAA	80s ·	AAAAABAAAA
	90s	AAe		
037004	30s	··fccccccc	40s	cccccccccc
	50s	baaaabaaab	60s	bbaababbe·
	70s	·····	80s	·····
	90s	††		
037005	50s	·····e	60s	AAAABAAAAB
	70s	AAAAAAAAAA	80s	AAAAAAAAAA
	90s	AAe		
037006	60s	··eAAAAAAA	70s	AAAAAAAAAA
	80s	AAAAAAAAAA	90s	AAe
037007	60s	···eBAAAA	70s	AAAAAAAAAA
	80s	AAAABAAAAA	90s	AAe
037008	60s	·····eAAAA	70s	AAAAAAAAAA
	80s	AAAAAAAAAA	90s	AAe
037009	60s	··eAAAAAAA	70s	AAAAAAAAAA
	80s	AAAAAAAAAA	90s	AAe
037010	60s	··eBAAAAAA	70s	AAAAAAAAAA
	80s	AAAAAAAAAA	90s	ABe
037011	60s	··eAAAAAA	70s	AAAAAAAAAA
	80s	AAAAAAAAAB	90s	AAe

Stn. number	Gauged daily flows, monthly peaks and rainfall			
	60s	BBBBBAEABA	70s	AAAAAAAAAA
	80s	AAAAAAAAAA	90s	AAe
032015	60s	------B	70s	EEBBEEEEEE
	80s	EEEeeeEEEE	90s	EEf
032020	70s	EAAAABABAB	80s	ABAEAE††††
	90s	††		
032023	70s	fEBEBEEEEE	80s	EE†-ee††††
	90s	††		
033001	30s	----fcCC	40s	ECCCCCCCCC
	50s	FFCCCCCCCC	60s	CCF†††††††
	70s	†††††††††	80s	----††††
	90s	††		
033002	30s	-cCCcCBB	40s	BBBBBCCCCC
	50s	CCCCCCCCCB	60s	BAAAAAAAAB
	70s	BAAAAAAAAB	80s	BAABAAAAAA
	90s	AA		
033003	30s	---fCCC	40s	CCFCFCCCCC
	50s	BAEABBABCC	60s	BAAAAACCAA
	70s	BCCCCCCCCC	80s	CCCCCFFF††
	90s	††		

Stn. number	Gauged daily flows, monthly peaks and rainfall			
	80s	AAAAAAAABA	90s	ABe
033056	60s	---ccfic	70s	cicfffCCCB
	80s	BAAAAAAaaa		
033057	70s	---FBAA	80s	AAAAAAaaab
033058	70s	-----††EA	80s	AAAAaaAAAA
	90s	F†e		
033063	80s	eAAabAABAA	90s	ABe
033064	80s	eaaabaaaaa		
033065	80s	fCCcaAAABE	90s	††
033066	80s	-eAaaBBAAA	90s	BAe
033067	80s	-eaaAAAAC	90s	††
033068	80s	-fcbBaaab		
034001	50s	------e	60s	AAAAAAAAAA
	70s	AAAAAAAAAA	80s	AAAAAAAAAA
	90s	EBe		
034002	50s	-----eAA	60s	AAAAAAAAAA
	70s	EAAAAAAAAA	80s	AEBAAAAAAE
	90s	EBe		

Stn. number	Gauged daily flows, monthly peaks and rainfall			
037012	60s	--eBAAAAA	70s	AAAAAABAAA
	80s	AAAABAAAAE	90s	EAe
037013	60s	--eAAAAAA	70s	AAAAAAAAAA
	80s	AAAABAAAAA	90s	AAe
037016	60s	---EAAAA	70s	AAAAAAAAAA
	80s	AAAAAAAAAA	90s	AAe
037017	60s	--------E	70s	AAAAAAAAAA
	80s	AAAAAAAAAA	90s	AAe
037020	60s	--------†	70s	EAAAAAAAAA
	80s	AAAABAAAAA	90s	AAe
037021	60s	--------†	70s	EAAAAAAAAA
	80s	AAAAAAAEAA	90s	AAe
037022	60s	--------†	70s	EAAAAAAAAB
	80s	AAAABBBAAE	90s	AAe
037024	70s	-EAAAAAAAA	80s	AAABBBAEAA
	90s	AAe		
037025	60s	-----CBAAE	70s	EEEE†††--
	80s	--†--††††	90s	††
037026	60s	-ebaaebaaa	70s	aaaaaee
037027	60s	feeeaebaaa	70s	ae
037028	60s	feeaaebaaa	70s	aaaaeee
037029	60s	eeaaabcaaa	70s	baaaeae
037030	60s	-EEEBBAAB	70s	e--------
	80s	----††††	90s	††
037031	70s	----eBAA	80s	AAABAAAE††
	90s	††		
037033	70s	-----eAAAA	80s	AAAAAEeaaa
	90s	AAe		
037034	70s	----feeaaa	80s	aaedaeaaba
	90s	aae		
037037	80s	-eebbeEEEB	90s	BBe
037038	50s	-eaeee--ea	60s	beeebabbab
	70s	abbae		

Summary of Archived Data – 2

Naturalised daily and monthly flows

Stn. number	Naturalised daily, and monthly flows			
030003	60s	-----FF		
031001	40s	FEFFEF----	50s	---FEEEEEF
	60s	EEFEEBAACA	70s	ABFEEFFFFE
	80s	CF		
031006	70s	FEEEEF		
031007	60s	--------FF	70s	FF--FF
031010	70s	-FEEEF		
031013	70s	---FFF		
031016	70s	-FEEEF		
031017	70s	---FFF		
031020	70s	-FFFFF		
031021	70s	-FFFFF		
031022	70s	---FFF		
032001	40s	FEEEEEEEEE	50s	EEEEEEEEEE
	60s	EEEEEEEEEE	70s	FEEEF
032002	30s	--------FF	40s	EEEEEEEEEE
	50s	EEEEEF----	60s	-FEEEEEEEE
	70s	EEEEEF		
032003	70s	FEEEEF		
032004	40s	---FEEEEEE	50s	EEEEEEEEEE
	60s	EEEEFFEEEF	70s	FEEEEF
032006	30s	---------F	40s	EEEEEEEEEE
	50s	EEEEEEEEEE	60s	EEEEEEEEEF
032007	30s	---------F	40s	EEEEEEEEEE
	50s	EEEEEEEEEE	60s	EEEEEEEEEF
032008	40s	-----FFEEE	50s	EEEEEEEEEE
	60s	EEEEEEFEEE	70s	EEEEEF

Stn. number	Naturalised daily, and monthly flows			
032020	70s	FEEEFF		
032023	70s	-F-FFF		
033001	50s	-FEEEEEF		
033002	60s	--FEEBAAAA	70s	AAAAAAA
033003	50s	FF-FEEEF		
033004	40s	-----FFFEE	50s	EEEEFEEF
033005	50s	--FEEEEEEE	60s	EEEEEEBBAA
	70s	AC		
033006	50s	------FEEE	60s	EEEEF
033007	50s	---FEEEEEE	60s	EEEFEECCCF
	70s	EF		
033011	60s	-FEEF		
033026	70s	-CAAAAC		
033035	50s	--------CA	60s	AAAABAAAAA
	70s	AAAAAC		
036001	30s	--CAAAAAAA	40s	AAAAAAAAAA
	50s	AAAAAAAAAA	60s	AAAAAAAAAA
	70s	AAAAAAC		
036002	60s	CAAAAAAAAA	70s	AAAAAC
036003	60s	-CAAAAAAAA	70s	AAAAAAC
036004	60s	-----CAAAA	70s	AAAAAAC
036005	60s	--CAAAAAAA	70s	AAAAAAC
036006	60s	--CAAAAAAA	70s	AAAAAAC
036007	60s	-----CAAAA	70s	AAAAAAC
036008	60s	CAAAAAAAAA	70s	AAAAAAC
036009	60s	--------CC	70s	AAAAAAC
036010	60s	--------CA	70s	AAAAAAC

Stn. number	Naturalised daily, and monthly flows			
036011	60s	--------CA	70s	AAAAAAC
036012	60s	--------CA	70s	AAAAAAC
036015	70s	-CAAAC		
037002	30s	--CAAAAAAA	40s	ACCAAAAAAA
	50s	AAAAAAAAAA	60s	AAAAAAAAAA
	70s	AAAAAAC		
037003	30s	--CAAAAAAA	40s	AAAAAAAAAA
	50s	AAAAAAAAAA	60s	AC--CAAAAA
	70s	AAAAAAC		
037004	30s	--DAAAAAAA	40s	AAAAAAAAAA
	50s	AAAAAAAAAA	60s	AAAAAAAAA
037005	50s	--------C	60s	AAAAAAAAAA
	70s	AAAAAAC		
037006	60s	--CAAAAAAA	70s	AAAAAAC
037007	60s	----CAAAAA	70s	AAAAAAC
037008	60s	-----CAAAA	70s	AAAAAAC
037009	60s	--CAAAAAAA	70s	AAAAAAC
037010	60s	--CAAAAAAA	70s	AAACCAC
037011	60s	---CAAAAAA	70s	AAAAACC
037012	60s	---CAAAAAA	70s	AAAAAAC
037013	60s	---CAAAAAA	70s	AAAAAAC
037016	60s	-----CAAAA	70s	AAAACAC
037017	60s	--------C	70s	AAAACAC
037020	70s	CAAAAAC		
037021	70s	CAAAAAC		
037023	70s	-CAAC		
037024	70s	-CAAAAC		

Gauged daily flows, monthly peaks and monthly rainfall

KEY:

	Complete rainfall	Incomplete or missing rainfall
Complete daily and complete peaks	A	a
Complete daily and partial peaks	B	b
Complete daily and no peaks	C	c
Partial daily and complete peaks	D	d
Partial daily and partial peaks	E	e
Partial daily and no peaks	F	f
No flow data	†	-

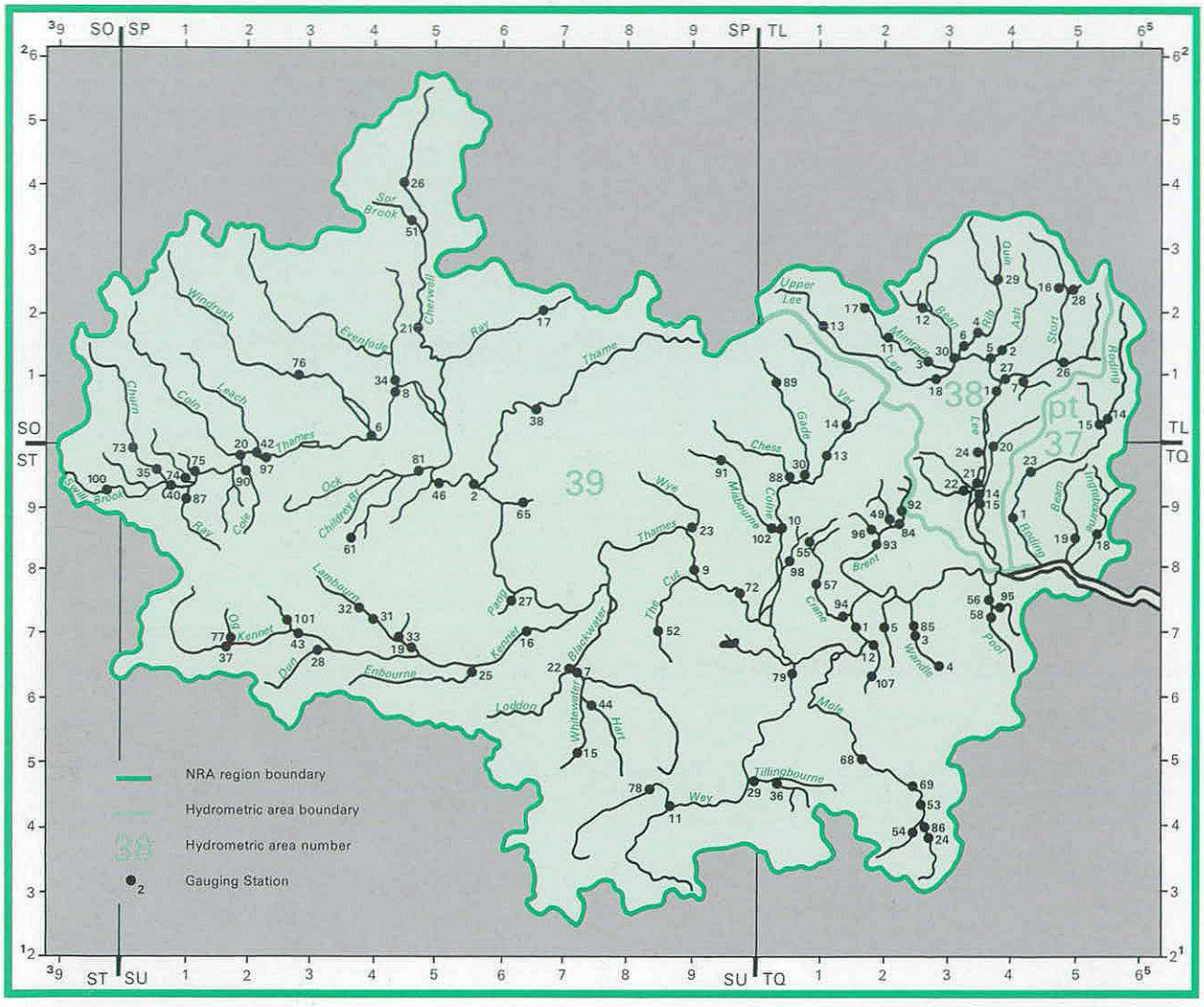
Naturalised daily and monthly flows

KEY:

Complete daily and complete monthly	A
Partial daily and complete monthly	B
Partial daily and partial monthly	C
Partial daily and no monthly	D
No daily and complete monthly	E
No daily and partial monthly	F
No naturalised flow data	-

Up-to-date Summaries of Archived Data are available on request from the National Water Archive Office.

THAMES REGION



Area: 12,917 km²

Average Rainfall (1961–90): 688mm

Gauging Station Register

Station number	River name	Station name	Grid reference	Catchment area (sq km)	Station type	Period of record	Mean ann. rainfall (mm)	Mean ann. runoff (mm)	Mean ann. loss (mm)	Max. ann. runoff (mm)	Year of max.	Min. ann. runoff (mm)	Year of min.	Mean flow (m^3s^{-1})	Min. mon. flow (m^3s^{-1})	Month/Year of min.	Mean ann. flood (m^3s^{-1})	10 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
037001	Roding	Redbridge	TQ 415884	303.3	EW	1950–90	623	194	429	**292**	82	83	73	1.87	0.20	09/59	24.0	4.5	0.25
037014	Roding	High Ongar	TL 561040	95.1	EW	1963–90	606	160	446	255	74	24	73	0.48	>0.00	07/76	12.9	1.1	0.03
037015	Cripsey Brk	Chipping Ongar	TL 548035	62.2	FV	1961..90	*635*	170	465	305	82	36	73	0.33	0.02	10/72		0.9	0.02
037018	Ingrebourne	Gaynes Park	TQ 553862	47.9	EW	1970–90	598	218	380	284	79	114	73	0.33	0.07	08/76	7.3	0.7	0.09
037019	Beam	Bretons Farm	TQ 515853	49.7	EW	1965..90	600	213	387	**278**	**87**	107	73	0.34	0.04	08/76	8.7	0.7	0.07
037023 *	Roding	Loughton	TQ 442955	269.0	C	1971–82	598	167	431	251	79	46	73	1.43	0.08	08/76		3.6	0.09
038001	Lee	Feildes Weir	TL 390092	1036.0	MIS	1879–90n	*641*	163	478	350	19	49	34	5.36	0.80	08/49	42.7	9.4	1.58
038002	Ash	Mardock	TL 393148	78.7	FV	1980–90	*639*	124	515	**185**	**87**	**89**	**90**	0.31	**0.05**	**11/90**	6.6	0.6	0.06
038003	Mimram	Panshanger Park	TL 282133	133.9	FL	1952–90	649	126	523	181	61	54	73	0.54	0.14	08/76	2.0	0.8	0.24
038004	Rib	Wadesmill	TL 360174	136.5	FL C	1979–90	631	124	507	**173**	**88**	**87**	**90**	0.54	**0.11**	**09/90**	14.5	0.9	0.13
038005 *	Ash	Easneye	TL 380138	85.2	TP	1960..81	628	119	509	161	74	31	73	0.32	0.02	08/76		0.6	0.06
038006 *	Rib	Herts Train'g Sch	TL 335158	148.1	TP	1956..82	632	133	499	207	58	41	73	0.63	0.05	08/76		1.2	0.13
038007	Canons Brk	Elizabeth Way	TL 431104	21.4	FL	1965–90	615	281	334	373	82	137	73	0.19	0.04	08/76	7.4	0.4	0.04
038011 *	Mimram	Fulling Mill	TL 225169	98.7	C	1957–84	677	66	611	111	79	12	73	0.21	0.00	11/76	0.6	0.4	0.02
038012	Stevenage Brk	Bragbury Park	TL 274211	36.0	FV	1974–90	631	82	549	120	79	56	76	0.09	0.01	08/76		0.2	0.01
038013	Upper Lee	Luton Hoo	TL 118185	70.7	TP B	1960–90	*661*	103	558	170	67	14	73	0.23	**0.00**	**09/90**	3.2	0.5	
038014	Salmon Brk	Edmonton	TQ 343937	20.5	FV	1956..90	667	240	427	334	58	117	73	0.16	0.01	09/59		0.4	0.01
038015 *	Int'cepting dr	Enfield	TQ 355932	7.4	FL	1969..82	615	465	150	626	79	366	71	0.11	0.04	02/71		0.2	0.04
038016	Stanstead Sp	Mountfitchet	TL 500246	20.5	TP	1969–90	619	103	516	149	75	52	73	0.07	0.02	09/76		0.1	0.03
038017	Mimram	Whitwell	TL 184212	39.1	C	1970–90	640	71	569	**125**	**88**	21	73	0.09	0.02	10/73		0.1	0.02
038018	Upper Lee	Water Hall	TL 299099	150.0	C	1971–90	651	266	385	358	79	128	73	1.27	0.29	08/76	8.8	2.1	0.48
038019 *	Salmons Brk	Montague Road	TQ 354932	33.9	FL	1971..76	588	132	456	163	72	87	73	0.14	0.03	03/73		0.3	0.02
038020	Cobbins Brk	Sewardstone Rd	TQ 387999	38.4	FL	1971..90	604	178	426	**310**	**87**	48	73	0.22	>0.00	08/76	7.2	0.5	0.01
038021	Turkey Brook	Albany Park	TQ 359985	42.2	FV	1971–90	664	157	507	253	79	43	73	0.21	**0.01**	**09/90**	9.2	0.5	0.01
038022	Pymmes Brk	Edmonton	TQ 340925	42.6	C	1954–90	*684*	362	322	663	60	168	73	0.49	0.09	10/69	25.4	1.0	0.11
038024	Small R. Lee	Ordnance Road	TQ 370988	41.5	FV	1973–90	630	251	379	327	82	171	80	0.33	0.05	08/76		0.6	0.08
038025 *	Pymmes Brk	Alcazar	TQ 340925	41.4	VA	1954..74		401		681	60	231	69	0.53	0.09	10/69		1.1	0.11
038026	Pincey Brook	Sheering Hall	TL 495126	54.6	FV	1974–90	632	181	451	**258**	**87**	72	76	0.31	0.01	08/76	8.7	0.7	0.02
038027	Stort	Glen Faba	TL 393093	280.2	US	1985..90		163		219	87	106	90	1.45	0.19	09/90		3.1	0.16
038028	Stansted Brk	Gypsy Lane	TL 506241	25.9	FV	1976–90	652	100	552	**146**	**87**	73	80	0.08	0.01	08/76		0.2	0.02
038029	Quin	Griggs Bridge	TL 392248	50.4	FV	1978–90	642	106	536	163	79	**69**	**90**	0.17	**0.03**	**11/90**		0.3	0.04
038030	Beane	Hartham	TL 325131	175.1	FV	1979–90	634	110	524	**148**	**88**	**81**	**90**	0.61	**0.23**	**09/90**		0.9	0.26
039001	Thames	Kingston	TQ 177698	9948.0	US	1883–90n	719	246	473	418	51	98	34	77.65	10.76	07/21	326.1	172.3	18.35
039002	Thames	Days Weir	SU 568935	3444.7	MIS	1938–90	712	257	455	470	60	92	73	28.05	0.29	08/76	147.9	67.4	3.18
039003	Wandle	Connollys Mill	TQ 265705	176.1	FL	1962..90	731	297	434	**429**	**88**	145	73	1.66	0.56	02/65	10.1	2.6	0.65
039004	Wandle	Beddington Park	TQ 296655	122.0	EM	1936..90	773	43	730	**73**	**88**	8	73	0.17	0.01	08/76	2.9	0.3	0.01
039005	Beverley Brk	Wimbledon Com	TQ 216717	43.6	FL	1935..90	635	392	243	503	58	210	62	0.54	0.16	06/62	11.6	0.9	0.21
039006	Windrush	Newbridge	SP 402019	362.6	CB	1950–90	754	285	469	446	60	105	76	3.28	0.19	08/76	11.8	6.5	0.72
039007	Blackwater	Swallowfield	SU 731648	354.8	CC	1952–90	711	261	450	336	82	130	53	2.94	0.64	09/59	21.2	5.6	0.90
039008	Thames	Eynsham	SP 445087	1616.2	MIS	1951–90	734	265	469	457	60	103	76	13.58	0.13	08/76	64.9	31.4	1.16
039009 *	Thames	Bray Weir	SU 909797	6915.3	MIS	1959–82	721	264	457	363	77	128	73	57.93	8.37	08/76		126.3	15.72
039010	Colne	Denham	TQ 052864	743.0	B	1952–90	714	169	545	**246**	**88**	68	73	3.99	0.93	08/76	10.2	6.3	1.79
039011	Wey	Tilford	SU 874433	396.3	C	1954–90	854	264	590	419	60	135	73	3.31	0.88	08/55	33.0	5.5	1.32
039012	Hogsmill	Kingston	TQ 182688	69.1	B	1956..90	678	443	235	536	79	298	73	0.97	0.43	10/69	13.2	1.5	0.50
039013	Colne	Berrygrove	TQ 123982	352.2	CC	1934..90	692	71	621	209	37	9	73	0.79	0.01	11/73		1.6	0.12
039014	Ver	Hansteads	TL 151016	132.0	CC	1956–90	710	99	611	180	61	23	76	0.41	0.02	08/76	1.6	0.7	0.09
039015	Whitewater	Lodge Farm	SU 731523	44.5	C	1910–90	*791*	252	539	381	51	116	34	0.36	0.12	10/21	1.1	0.6	0.17
039016	Kennet	Theale	SU 649708	1033.4	C	1961–90	767	293	474	393	66	124	76	9.59	1.38	08/76	37.3	16.5	3.87
039017	Ray	Grendon U.	SP 680211	18.6	FL	1962..90	633	170	463	300	66	29	73	0.10	**0.00**	**08/90**	6.0	0.2	
039019	Lambourn	Shaw	SU 470682	234.1	C	1962–90	729	230	499	290	67	100	76	1.71	0.49	08/76	3.5	2.8	0.78
039020	Coln	Bibury	SP 122062	106.7	C	1963–90	797	393	404	523	66	118	76	1.33	0.20	09/76	3.4	2.6	0.39
039021	Cherwell	Enslow Mill	SP 482183	551.7	CC	1965–90	681	218	463	307	79	78	76	3.82	0.13	08/76	22.8	8.8	0.64
039022	Loddon	Sheepbridge	SU 720652	164.5	C	1965–90	751	413	338	498	67	231	73	2.15	0.59	08/76	16.6	3.6	0.93
039023	Wye	Hedsor	SU 896867	137.3	C	1964–90	760	230	530	314	67	102	76	1.00	0.31	08/76	2.9	1.5	0.47
039024 *	Gatwick St	Gatwick	TQ 288402	31.1	VA	1952–77	897	459	438	768	60	281	53	0.45	0.03	06/76	7.2	0.9	0.11
039025	Enborne	Brimpton	SU 568648	147.6	CC	1967–90	792	265	527	373	74	140	73	1.24	0.04	08/76	17.5	2.7	0.18
039026	Cherwell	Banbury	SP 458411	199.4	CC	1966..90	683	165	518	264	69	41	76	1.04	>0.00	07/76	21.2	2.7	0.01
039027	Pang	Pangbourne	SU 634766	170.9	C	1968–90	692	115	577	162	69	51	76	0.62	0.11	08/76	2.6	1.1	0.21
039028	Dun	Hungerford	SU 321685	101.3	C	1968–90	769	231	538	285	82	106	76	0.74	0.20	08/76	2.5	1.3	0.28
039029	Tillingbourne	Shalford	TQ 000478	59.0	C	1968–90	801	299	502	367	69	208	73	0.56	0.33	08/76		0.7	0.35
039030	Gade	Croxley Green	TQ 082952	184.0	CC	1970–90	709	158	551	**249**	**88**	56	73	0.92	0.09	08/76		1.5	0.31
039031 *	Lambourn	Welford	SU 411731	176.0	CC	1962–83	762	183	579	249	67	62	76	1.02	0.23	08/76	2.0	1.7	0.41
039032 *	Lambourn	East Shefford	SU 390745	154.0	CC	1966–83	758	157	601	225	69	17	76	0.77	0.01	07/76	1.8	1.6	0.10
039033	Winterbourne	Bagnor	SU 453694	49.2	C	1962–90	717	106	611	185	82	38	65	0.17	0.02	11/69	0.4	0.3	0.05
039034	Evenlode	Cassington Mill	SP 448099	430.0	CC	1970–90	707	268	439	389	77	117	76	3.65	0.15	08/76		8.3	0.61
039035	Churn	Cerney Wick	SU 076963	124.3	CC	1969–90	838	218	620	308	77	40	76	0.86	0.00	09/76		2.2	0.01
039036	Law Brook	Albury	TQ 045468	16.0	TP	1968..90	816	225	591	266	69	170	73	0.11	0.07	08/74	0.5	0.1	0.08
039037	Kennet	Marlborough	SU 187686	142.0	C	1972–90	792	188	604	290	77	12	76	0.85	>0.00	10/76		2.0	0.06
039038	Thame	Shabbington	SP 670055	443.0	B	1968..90	640	193	447	267	79	62	73	2.70	0.16	08/76	18.9	5.9	0.42
039040	Thames	Cricklade	SU 094942	185.0	CC	1972–90	775	248	527	364	77	84	73	1.46	0.03	08/76		4.0	0.06
039042	Leach	Lechlade	SU 227994	76.9	C	1972–90	706	306	400	458	77	139	76	0.75	**0.02**	**09/90**		1.8	0.06
039043	Kennet	Knighton	SU 295710	295.0	CC	1962..90	779	270	509	441	66	51	76	2.53	0.16	08/76		5.1	0.60
039044	Hart	Bramshill House	SU 755593	84.0	C	1972–90	695	279	416	339	82	131	73	0.74	0.12	08/76		1.5	0.21
039046	Thames	Sutton Crtnay	SU 516946	3414.0	US	1973..90	*687*	229	458	305	79	237	88	24.76	1.36	09/90		67.5	1.82
039049	Silk Stream	Colindeep Lane	TQ 217895	29.0	FV	1973..90	689	275	414	341	82	194	85	0.25	0.03	04/74	15.2	0.6	0.04
039051 *	Sor Brook	Adderbury	SP 475346	106.4	C	1967..88	673	251	422	336	79	86	76	0.85	0.03	08/76		1.7	0.18
039052	The Cut	Binfield	SU 853713	50.2	MIS	1957..90	*677*	227	450	319	58	123	73	0.36	0.00	11/60	8.6	0.8	0.06
039053	Mole	Horley	TQ 271434	89.9	CB	1961–90	810	438	372	614	74	233	73	1.25	0.18	08/76	23.9	2.6	0.24
039054	Mole	Gatwick Airport	TQ 260399	31.8	FLC	1961–90	817	341	476	605	66	127	73	0.34	>0.00	08/84		0.9	0.02
039055	Yeading B	Yeading West	TQ 083846	17.6	FV	1979..90	640	229	411	525	85	134	83	0.13	0.01	08/83	5.9	0.3	0.01
039056	Ravensbourne	Catford Hill	TQ 372732	67.6	FL	1977..90	*618*	184	434	222	78	**133**	**89**	0.39	**0.12**	**09/89**	8.9	0.7	0.13

Station number	River name	Station name	Grid reference	Catchment area (sq km)	Station type	Period of record	Mean ann. rainfall (mm)	Mean ann. runoff (mm)	Mean ann. loss (mm)	Max. ann. runoff (mm)	Year of max.	Min. ann. runoff (mm)	Year of min.	Mean flow (m^3s^{-1})	Min. mon. flow (m^3s^{-1})	Month/Year of min.	Mean ann. flood (m^3s^{-1})	10 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
039057	Crane	Cranford Park	TQ 103778	61.7	FL	1978..90	*624*	264	360	314	82	184	85	0.52	0.12	09/85	11.1	1.1	0.10
039058	Pool	Winsford Road	TQ 371725	38.3	FL	1978..90	*640*	232	408	255	87	207	83	0.28	0.10	09/78	3.3	0.5	0.11
039061	Letcombe Brk	Letcombe Bass.	SU 375853	2.7	FV	1971..90	*690*	993		1355	77	82	76	0.08	>0.00	08/76		0.2	>0.00
039065	Ewelme Brk	Ewelme	SU 642916	13.4	FV	1970..90	*648*	108	540	153	75	45	73	0.05	>0.00	11/73		0.1	0.01
039068	Mole	Castle Mill	TQ 179502	316.0	C	1971..90	766	359	407	459	74	159	73	3.59	0.67	08/72		8.4	0.76
039069	Mole	Kinnersley Mnr	TQ 262462	142.0	MIS	1972..90	793	445	348	**538**	**87**	211	73	2.00	0.17	08/76		4.2	0.29
039073	Churn	Cirencester	SP 020028	84.0	FV	1979-90	*821*	298	523	403	82	**173**	**89**	0.79	**0.01**	**11/90**		1.9	0.06
039074	Ampney Brk	Sheepen Bridge	SU 105950	74.4	FV	1980-90	*736*	309	427	393	82	**178**	**90**	0.73	**0.00**	**11/90**		1.8	
039075	Marston My	Whetstone Br	SU 128964	25.0	FV	1980..90	*668*	130	538	198	82	112	83	0.10	**0.00**	**11/90**		0.3	
039076	Windrush	Worsham	SP 299107	296.0	MIS	1942..90	*717*	249	468	348	79	**202**	**89**	2.34	0.36	08/44		5.1	0.58
039077	Og	Marlborough	SU 194697	59.2	FV	1980-90	*739*	164	575	206	82	**81**	**89**	0.31	**>0.00**	**12/90**		0.7	0.01
039078	Wey(north)	Farnham	SU 838462	191.1	C TP	1978..90	*826*	113	713	**144**	**90**	90	80	0.69	0.17	08/82		1.3	0.17
039079	Wey	Weybridge	TQ 068648	1008.0	US	1979..90	*755*	220	535	230	87	163	89	7.04	2.02	08/90		12.0	2.21
039081	Ock	Allott Gardens	SU 481966	234.0	CC	1962..90	652	205	447	296	68	76	76	1.52	0.13	08/76		3.4	0.32
039084	Brent	Brent Cross	TQ 236880		TP	1989-90					89		90	0.30	0.08	05/90		0.6	0.07
039085 *	Wandle	Wandle Park*	TQ 266703	176.1	FL	1936..60	*713*	285	428	431	37	220	57	1.59	0.94	11/56		2.5	0.92
039086	Gatwick St	Gatwick Link	TQ 285417	33.6	C	1975-90	827	631	196	**742**	**87**	481	76	0.67	0.13	08/76		1.3	0.24
039087	Ray	Water Eaton	SU 121935	84.1	US	1974-90	702	480	222	608	82	297	76	1.28	0.33	08/76		2.4	0.43
039088	Chess	Rickmansworth	TQ 066947	105.0	C	1974-90	757	181	576	255	83	61	76	0.60	0.08	08/76		0.9	0.26
039089	Gade	Bury Mill	TL 053077	48.2	FL	1975..90	*620*	103	517	**177**	**88**	26	76	0.16	0.01	08/76		0.3	0.04
039090	Cole	Inglesham	SU 208970	140.0	CC	1976-90	*623*	266	357	344	82	**201**	**89**	1.18	0.11	10/76		2.7	0.16
039091 *	Misbourne	Quarrendon Mill	SU 975963	66.3	B	1978..85		59		119	83	34	84	0.12	0.02	09/80		0.3	0.02
039092	Dollis Brook	Hendon Lane Br	TQ 240895	25.1	CB	1979..90	*699*	297	402	373	88	235	85	0.24	0.03	09/89		0.6	0.03
039093	Brent	Monks Park	TQ 202850	117.6	FL	1978..90	*678*	268	410	302	87	197	90	1.00	0.18	10/85		2.3	0.12
039094	Crane	Marsh Farm	TQ 154734	81.0	FL	1977-90	*610*	207	403	292	79	97	83	0.53	0.06	08/83		1.2	0.02
039095	Quaggy	Manor Ho Gdns	TQ 394748		FL	1978..90	*537*				79		90	0.16	0.05	08/84		0.3	0.04
039096	Wealdstone	Wembley	TQ 192862	21.7	FV	1979..90	*521*	231	290	289	86	153	80	0.16	0.03	05/90		0.4	0.02
039097	Thames	Buscot	SU 230981	997.0	MIS	1980-90	*714*	299	415	367	82	**246**	**90**	9.44	**1.05**	**08/90**		22.3	1.12
039098	Pinn	Uxbridge	TQ 062826	33.3	EM	1984..90	654	161	493	199	87	126	89	0.17	0.01	09/85		0.4	0.01
039099	Ampney Brk	Ampney St Peter	SP 076013	45.3	FV	1983-90	*763*	377	386	469	86	261	90	0.54	0.00	11/90		1.3	
039100	Swill Brook	Oaksey	ST 997927	53.3	EM	1984..90		166		146	89	125	90	0.28	0.00	11/90		0.8	
039101	Aldbourne	Ramsbury	SU 288717	53.1	FV	1982-90	*737*	127	610	154	88	57	89	0.21	0.02	12/90		0.5	0.04
039102	Misbourne	Denham Lodge	TQ 046866	136.0	C	1984..90	712	61	651	99	88	37	90	0.26	0.07	10/90		0.5	0.08

Hydrometric Statistics

		Period	Rainfall (mm)	% of pre1986	Runoff (mm)	% of pre1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
037001	**Roding at Redbridge** C.A: 303.3 km^2	**50-85**	**625**		**193**		**1.86**	**62.4**	**22/11 1974**	**0.12**	**30/08 1957**	**4.4**	**0.81**	**0.27**
M.A: NRA-T	Level: 6m Local Number: 5480													
F.A.R: SEI*	B.F.I: .39 Sensitivity: 13.8	1986	646	103	210	109	2.02	24.7	03/01	0.19	30/09	5.3	1.04	0.24
Comment: 'Essex' profile (modified Flat V Crump) weir superseded insensitive broad-crested weir in 1962. Calibration above 35 m^3s^{-1} is based upon model tests. Flows augmented by moderate net import of water (but diversion of Luxborough STW effluent, completed in 1987, reduced DWFs). Pattern of low flows influenced by abstractions. Naturalised flows 1951-75. # Low lying, mainly impervious (London Clay and superficial deposits) catchment. Land use: rural with significant urban development close to the gauging station.		1987	727	116	279	145	2.68	32.4	16/10	0.29	13/07	5.9	1.17	0.42
		1988	638	102	235	122	2.25	42.0	30/01	0.14	20/09	5.5	0.79	0.29
		1989	554	89	143	74	1.37	23.6	17/03	0.17	28/07	3.4	0.49	0.19
		1990	499	80	121	63	1.17	40.1	04/02	0.08	13/08	2.2	0.35	0.13
037014	**Roding at High Ongar** C.A: 95.1 km^2	**63-85**	**605**		**157**		**0.47**	**15.0**	**15/03 1964**	**0.00**	**14/07 1976**	**1.1**	**0.13**	**0.03**
M.A: NRA-T	Level: 41m Local Number: 5420													
F.A.R: GI	B.F.I: .35 Sensitivity: 40.0	1986	640	106	186	118	0.56	10.0	03/01	0.05	02/07	1.5	0.28	0.07
Comment: 'Essex' (modified Flat V) weir in an 11m wide section. Model-based calibration. Overfall operates (> 1.7m) into a bypass channel. Structure subject to drowning; computed flows assume modularity - c/m rating under development. Evidence of weir settlement. Naturalised flows: 1964-76;, minimal net import. Responsive flow regime. Spray irrigation can substantially deplete low flows. # Generally low lying, largely impermeable (London Clay/glacial deposits), agricultural catchment; significant urban enclaves.		1987	712	118	253	161	0.76	14.4	10/10	0.05	14/07	1.4	0.33	0.08
		1988	656	108	214	136	0.64	14.1	29/01	0.04	15/08	1.4	0.16	0.05
		1989	578	96	112	71	0.34	9.6	17/03	0.02	26/06	0.8	0.07	0.03
		1990	500	83	99	63	0.30	13.9	03/02	0.01	19/07	0.6	0.04	0.01

	Period	Rainfall (mm)	% of pro1986	Runoff (mm)	% of pro1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
037015 **Cripsey Brook at Chipping Ongar** C.A: 62.2 km²	**65..85**	**645**		**160**		**0.32**	**33.1**	**22/10 1982**	**0.00**	**10/11 1975**	**0.8**	**0.09**	**0.02**
M.A: NRA-T Level: 42m Local Number: 5427													
F.A.R: SEI B.F.I: .32 Sensitivity: 33.3	1986	649	100	210	131	0.41	12.0	03/01	0.03	16/08	1.1	0.19	0.04
Comment: Flat V weir (5.6m broad) installed in 1981 - superseded a compound thin-plate weir of limited capacity (2.5 m^3s^{-1}). Modular calibration adopted for the Flat V; some over-estimation of flows during periods of drowned flow. Responsive flow regime. Sewage effluent is an important component of low flows. # Predominantly impermeable catchment (London clay but with extensive areas of glacial deposits). Mainly rural agriculture is the primary land use.	1987	745	115	264	165	0.52	**34.7**	**29/07**	0.04	13/07	1.2	0.20	0.05
	1988	642	99	202	126	0.40	12.2	29/01	0.03	17/09	1.1	0.13	0.04
	1989	544	84	158	99	0.31	16.4	16/03	0.03	27/07	0.7	0.08	0.04
	1990	505	78	137	86	0.27	23.3	03/02	0.02	24/07	0.5	0.06	0.03
037018 **Ingrebourne at Gaynes Park** C.A: 47.9 km²	**70-85**	**599**		**216**		**0.33**	**29.0**	**21/11 1974**	**0.06**	**27/08 1972**	**0.7**	**0.19**	**0.09**
M.A: NRA-T Level: 7m Local Number: 5550													
F.A.R: SEI B.F.I: .49 Sensitivity: 23.3	1986	629	105	239	111	0.36	6.7	03/01	0.09	17/08	0.8	0.24	0.10
Comment: 'Essex' profile (modified Flat V Crump) weir in a 9.5m wide section. All but exceptional floods contained. Model-based calibration assumes modularity; however drowning occurs above about 7 m^3s^{-1}. Naturalised flow available for period 1970-75; significant net augmentation of runoff (transfer from the River Beam). # Largely impermeable catchment (London Clay/glacial deposits). Rural headwaters but substantial urban development around lower reaches.	1987	724	121	277	128	0.42	9.8	15/10	0.08	20/08	0.8	0.23	0.10
	1988	612	102	256	119	0.39	13.1	29/01	0.11	29/08	0.7	0.20	0.12
	1989	540	90	179	83	0.27	7.3	20/12	0.10	25/06	0.5	0.16	0.10
	1990	475	79	157	73	0.24	12.0	03/02	0.07	08/08	0.4	0.13	0.09
037019 **Beam at Bretons Farm** C.A: 49.7 km²	**65..85**	**607**		**215**		**0.34**	**15.8**	**29/07 1980**	**0.03**	**22/08 1976**	**0.7**	**0.17**	**0.06**
M.A: NRA-T Level: 2m Local Number: 5541													
F.A.R: SEI B.F.I: .37 Sensitivity: 25.7	1986	610	100	205	95	0.32	7.3	25/08	0.06	11/10	0.7	0.18	0.07
Comment: 'Essex' (modified Flat V Crump) weir in a 10.4m wide section. Model-based calibration assumes modularity; drowning is uncommon. Separate spillway accommodates flow > 16 m^3s^{-1}. Naturalised flows: 1966-75; very small net diminution in runoff.Flood storage lagoons (on the Rom) influence flows patterns (from late 1980s). # A predominantly impermeable catchment (London Clay overlain in places by glacial deposits). Mainly rural headwaters, substantial - and growing - urban development in the lower reaches.	1987	712	117	278	129	0.44	**17.4**	**22/08**	0.08	10/05	1.0	0.19	0.10
	1988	601	99	235	109	0.37	11.3	29/01	0.07	16/08	0.8	0.16	0.08
	1989	520	86	168	78	0.27	10.6	20/12	0.06	14/10	0.6	0.12	0.07
	1990	469	77	142	66	0.22	12.0	03/02	0.06	08/09	0.5	0.09	0.06
038001 **Lee at Feildes Weir** C.A: 1036.0 km²	**79..85**	*639*		**135**		**4.43**	**118.0d**	**17/03 1947**			**8.5**	**2.71**	**0.58**
M.A: NRA-T Level: 28m Local Number: 5290													
F.A.R: PGEI B.F.I: .57 Sensitivity: 38.3	1986	697	109	126	93	4.15	45.0	19/11	0.74	11/10	8.4	3.38	1.20
Comment: Thin-plate weir (insensitive - 29m wide) and 3 vertical-lift sluices; built 1978 to improve range and precision of flow measurement. Model rated. All flows (bar lockages) now contained. Pre-1978: barrage of gates/sluices; no peak flows. Low flows probably under-estimated. Gauging instigated by Beardsmore in 1850s. Estimated flows available for 1976. Low flows recorded in 1940s under review. Significant g/w abstraction; net export from catchment. Naturalised flows (New Gauge abstraction only) from 1883. # A mainly pervious (Chalk) catchment. Predominantly rural headwaters; significant urban growth in lower valleys.	1987	723	113	172	127	5.64	73.6	10/10	1.33	02/10	9.4	3.77	1.76
	1988	669	105	191	141	6.24	85.0	29/01	1.50	16/09	12.2	3.98	1.84
	1989	606	95	101	75	3.30	57.2	21/12	0.48	11/10	7.5	1.95	0.59
	1990	503	79	87	64	2.84	64.3	03/02	0.32	07/08	6.1	1.46	0.44
038002 **Ash at Mardock** C.A: 78.7 km²	**80–85**			**113**		**0.28**	**12.0**	**10/12 1982**	**0.05**	**16/10 1981**	**0.6**	**0.15**	**0.06**
M.A: NRA-T Level: 36m Local Number: 5080													
F.A.R: GI B.F.I: .54 Sensitivity: 24.3	1986	686		111	98	0.28	2.9	21/11	0.06	12/10	0.7	0.18	0.07
Comment: Flat V weir (1:10 cross-slope) 3.9m wide constructed in 1979, replaced a flume which was subject to bypassing and inaccurate at low flows (hence discharges assessed at downstream station - 038005). Current station remains modular and is virtually full range. Upstream lake storage, sluice activity and groundwater abstractions have a minor effect on flows. # A rural, mainly permeable (Chalk), catchment.	1987	750		185	164	0.46	12.5	10/10	0.11	21/08	0.8	0.21	0.13
	1988	677		183	162	0.45	13.0	29/01	0.12	15/09	0.8	0.23	0.13
	1989	605		113	100	0.28	9.4	16/03	0.07	01/12	0.5	0.15	0.07
	1990	482		89	79	0.22	11.7	03/02	0.04	10/08	0.4	0.09	0.05
038003 **Mimram at Panshanger Park** C.A: 133.9 km²	**52-85**	**651**		**127**		**0.54**	**3.5**	**30/05 1979**	**0.13**	**21/08 1976**	**0.8**	**0.51**	**0.24**
M.A: NRA-T Level: 47m Local Number: 4790													
F.A.R: GI B.F.I: .94 Sensitivity: 6.6	1986	705	108	109	86	0.46	3.1	20/05	0.30	08/10	0.6	0.45	0.33
Comment: Critical-depth flume; 5m overall width. Theoretical calibration confirmed by gaugings. All flows contained. Appreciable net export of water (considerable groundwater abstraction in headwaters). Very high baseflow component. # A predominantly permeable catchment (Upper Chalk - overlain by glacial deposits near headwaters); mainly rural but some urbanisation in the lower valley.	1987	713	110	120	94	0.51	2.0	20/10	0.32	02/10	0.7	0.49	0.35
	1988	659	101	178	140	0.76	3.5	29/01	0.44	31/12	1.1	0.71	0.47
	1989	602	92	102	80	0.44	2.3	20/12	0.26	15/10	0.6	0.42	0.27
	1990	520	80	103	81	0.44	2.5	03/02	0.22	20/10	0.7	0.40	0.23
038004 **Rib at Wadesmill** C.A: 136.5 km²	**79-85**	**628**		**119**		**0.51**	**22.8**	**28/12 1979**	**0.12**	**27/10 1985**	**0.9**	**0.31**	**0.14**
M.A: NRA-T Level: 47m Local Number: 4980													
F.A.R: GI B.F.I: .59 Sensitivity: 12.0	1986	697	111	107	90	0.46	4.7	21/11	0.15	07/10	1.0	0.33	0.17
Comment: Trapezoidal flume plus side-spilling Crump weir on the overflow channel. Modular calibration has applied during rare periods of drowned flow. All except highest floods contained. Daily flow data available (1957-83) for downstream limited range station (038006). Flows influenced by significant groundwater abstractions (net export). # Catchment is predominantly rural and pervious (Upper Chalk overlain in places by glacial deposits); substantial gravel tracts in the valley.	1987	732	117	170	143	0.74	16.8	19/11	0.20	20/08	1.3	0.39	0.23
	1988	664	106	174	146	0.75	**23.3**	**29/01**	0.24	16/11	1.3	0.43	0.26
	1989	610	97	113	95	0.49	12.6	20/12	0.14	25/11	0.8	0.27	0.16
	1990	485	77	87	73	0.38	16.0	03/02	**0.10**	**21/10**	0.6	0.19	0.10
038007 **Canons Brook at Elizabeth Way** C.A: 21.4 km²	**65-85**	**612**		**280**		**0.19**	**12.3**	**20/02 1977**	**0.02**	**24/11 1974**	**0.4**	**0.10**	**0.04**
M.A: NRA-T Level: 38m Local Number: 5189													
F.A.R: N B.F.I: .41 Sensitivity: 32.0	1986	668	109	297	106	0.20	7.1	25/08	0.05	02/10	0.5	0.12	0.05
Comment: Full range critical-depth flume in rectangular section. Theoretical calibration extends to 11 m^3s^{-1}. Over the period 1965-80 low flows were monitored at a Crump weir in series with the flume. Balancing reservoirs in Harlow (and the New Town development itself) influence the flow pattern but there are no significant abstractions or discharges. # The catchment is impervious - London Clay. Rural headwaters; heavily urbanised below.	1987	728	119	357	128	0.24	12.0	09/10	0.06	30/09	0.4	0.11	0.07
	1988	654	107	329	118	0.22	8.2	29/01	0.05	27/08	0.5	0.11	0.06
	1989	555	91	246	88	0.17	9.3	08/07	0.04	20/09	0.3	0.09	0.04
	1990	494	81	198	71	0.13	10.0	03/02	0.03	10/09	0.3	0.06	0.04
038012 **Stevenage Brook at Bragbury Park** C.A: 36.0 km²	**74-85**	**633**		**81**		**0.09**	**4.7**	**05/05 1978**	**0.00**	**05/09 1976**	**0.2**	**0.04**	**0.01**
M.A: NRA-T Level: m Local Number: 4827													
F.A.R: SG B.F.I: .28 Sensitivity: 60.0	1986	693	109	81	100	0.09	2.9	25/08	0.02	16/08	0.2	0.04	0.02
Comment: Flat V weir - 2.75m wide; constructed in 1974 to supersede the original broad-crested weir operated by Stevenage Development Corporation flow records prior to 1974 are sporadic and of poor quality. The Flat V weir remains modular up to 4.1 m^3s^{-1}; higher floods uncorrected. Groundwater abstractions (net export) and the release of water from flood storage lagoons can influence the flashy flow regime. # A Chalk catchment now largely urbanised.	1987	693	109	102	126	0.12	3.3	01/09	0.02	16/01	0.2	0.05	0.02
	1988	656	104	97	120	0.11	2.9	29/01	0.02	27/11	0.3	0.04	0.02
	1989	598	94	84	104	0.10	2.6	20/12	0.02	15/10	0.2	0.03	0.02
	1990	511	81	64	79	0.07	2.9	03/02	0.01	16/08	0.2	0.02	0.01

		Period	Rainfall (mm)	% of pre1986	Runoff (mm)	% of pre1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
038013	**Upper Lee at Luton Hoo** C.A: 70.7 km²	**60-85**	*674*		**105**		**0.24**	**9.1**	**17/06 1984**	**0.00**	**03/12 1978**	**0.5**	**0.18**	
M.A: NRA-T	Level: 98m Local Number: 4640													
F.A.R: G	B.F.I: .62 Sensitivity:	1986	703	104	112	107	0.25	2.8	20/05	0.02	07/10	0.5	0.21	0.04
		1987	763	113	124	118	0.28	5.3	01/09	0.00	01/10	0.6	0.18	0.04
		1988	645	96	110	105	0.25	2.9	29/01	0.00	17/08	0.6	0.15	0.01
		1989	628	93	53	50	0.12	2.1	07/07	0.00	06/09	0.2	0.09	
		1990	514	76	45	43	0.10	2.6	03/02	0.00	17/07	0.2	0.07	

Comment: Rectangular thin-plate weir (0.92m wide) plus insensitive broad-crested overfall weir for flows > 0.33 m^3s^{-1}. Outfall from an ornamental lake. Only very high floods exceed the capacity of the overfall weir. Flows are substantially reduced as a result of groundwater abstractions (significant export). Sustained periods of zero flow (occasionally interrupted by small releases via sluice above the thin-plate weir). # A Chalk catchment (with Drift) now substantially urbanised.

038014	**Salmon Brook at Edmonton** C.A: 20.5 km²	**56..85**	**668**		**235**		**0.15**	**11.4**	**30/05 1979**	**0.01**	**06/11 1984**	**0.4**	**0.06**	**0.01**
M.A: NRA-T	Level: 12m Local Number: 5357													
F.A.R: P	B.F.I: .27 Sensitivity: 60.0	1986	743	111	300	128	0.20	4.4	02/01	0.02	09/10	0.5	0.10	0.02
		1987	735	110	317	135	0.21	8.7	20/10	0.03	10/05	0.4	0.09	0.04
		1988	690	103	297	126	0.19	6.2	29/01	0.03	15/08	0.5	0.07	0.03
		1989	627	94	227	97	0.15	6.2	16/03	0.02	07/08	0.3	0.05	0.02
		1990	529	79	181	77	0.12	7.6	03/02	0.01	11/08	0.3	0.03	0.02

Comment: Flat V weir (1:10 cross-slope), 5m wide (insensitive at low flows) in slightly trapezoidal section - superseded a less effective compound broad crested structure in 1980. Backing-up behind the downstream culvert can (rarely) result in drowning during flood conditions. No significant abstractions and discharges from/to the Salmon Brook. # Impervious (London Clay) catchment. Salmons Brook rises on Enfield Chase, in the lower reaches the catchment is heavily urbanised.

038016	**Stanstead Springs at Mountfitchet** C.A: 20.5 km²	**69-85**	*619*		**103**		**0.07**	**0.4**	**17/03 1980**	**0.02**	**14/07 1974**	**0.1**	**0.06**	**0.03**
M.A: NRA-T	Level: 12m Local Number: 5106													
F.A.R: G	B.F.I: .98 Sensitivity: 16.6	1986			90	87	0.06	0.1d	05/05	0.04	15/10	0.1	0.06	0.04
		1987			122	118	0.08	0.1d	08/12	0.06	13/07	0.1	0.07	0.06
		1988			148	144	0.10	0.1d	07/02	0.07	31/10	0.1	0.09	0.07
		1989			94	91	0.06	0.1	23/04	0.03	28/11	0.1	0.06	0.04
		1990			75	73	0.05	0.3	30/04	0.02	22/12	0.1	0.04	0.02

Comment: Two complementary thin-plate weirs (rectangular and 90 degree V notch) measuring spring flow discharging to the River Stort. Very stable discharge but station can be overwhelmed in exceptional floods. Significant local groundwater abstraction producing substantial net export of water. Hydrological catchment cannot be readily determined hence runoff is not representative. # The contributing area to the Chalk springs is mainly rural.

038017	**Mimram at Whitwell** C.A: 39.1 km²	**70-85**	**640**		**70**		**0.09**	**0.6**	**06/07 1983**	**0.01**	**09/10 1973**	**0.1**	**0.09**	**0.02**
M.A: NRA-T	Level: 88m Local Number: 4730													
F.A.R: G	B.F.I: .97 Sensitivity: 55.0	1986			61	87	0.08	0.2	20/05	0.05	06/01	0.1	0.07	0.06
		1987			71	101	0.09	0.2	20/10	0.06	31/08	0.1	0.08	0.06
		1988			125	179	0.15	0.3	29/01	0.08	30/12	0.2	0.15	0.09
		1989			55	79	0.07	0.2	08/07	0.03	01/12	0.1	0.07	0.04
		1990			55	79	0.07	0.1	02/04	0.02	19/12	0.1	0.07	0.03

Comment: Crump weir - 1.0m crest (rather insensitive) within wider section. All flows contained and modular. Low flows occasionally augmented by pumping from local tube wells but substantial diminution due to groundwater abstraction is more characteristic. U/s cress-beds can influence low flow pattern. Discharge sustained from Chalk springs - hydrological catchment divide is uncertain. # A predominantly pervious (Chalk), rural catchment.

038018	**Upper Lee at Water Hall** C.A: 150.0 km²	**71-85**	**651**		**265**		**1.26**	**15.8**	**30/05 1979**	**0.24**	**23/08 1976**	**2.1**	**1.11**	**0.48**
M.A: NRA-T	Level: 44m Local Number: 4690													
F.A.R: GEI	B.F.I: .81 Sensitivity: 12.9	1986	716	110	275	104	1.31	5.6	20/05	0.64	05/10	2.0	1.24	0.74
		1987	731	112	308	116	1.46	9.3	20/10	0.78	29/09	2.1	1.27	0.89
		1988	664	102	344	130	1.63	11.1	29/01	0.63	27/08	2.6	1.41	0.90
		1989	627	96	221	83	1.05	8.8	20/12	0.48	14/10	1.8	0.88	0.52
		1990	532	82	205	77	0.98	11.0	03/02	0.35	09/07	1.9	0.70	0.43

Comment: Crump weir, 6.0m wide in an artificial channel. Modular throughout the flow range. All flows contained. Some early data (of limited quality) for two nearby gauging stations. Moderate net import of water - Luton STW effluent augments flows and strongly effects the low flow regime. # Catchment is mainly pervious (Chalk) but with glacial Drift in the headwaters. Land use is principally agricultural with some important (expanding) urban centres.

038020	**Cobbins Brook at Sewardstone Road** C.A: 38.4 km²	**71..85**	**596**		**171**		**0.21**	**15.8**	**05/05 1978**	**0.00**	**26/09 1978**	**0.5**	**0.05**	**0.01**
M.A: NRA-T	Level: 17m Local Number: 5329													
F.A.R: P	B.F.I: .25 Sensitivity: 50.0	1986	678	114	203	119	0.25	8.4	02/01	0.02	26/07	0.7	0.10	0.02
		1987	726	122	309	181	0.38	**40.0**	**29/07**	0.03	09/07	0.6	0.11	0.03
		1988	636	107	225	132	0.27	13.5	29/01	0.02	26/08	0.6	0.07	0.02
		1989	549	92	140	82	0.17	10.1	16/03	0.01	20/08	0.4	0.04	0.02
		1990	510	86	119	70	0.15	18.2	03/02	0.01	20/09	0.3	0.03	0.01

Comment: Trapezoidal critical-depth flume, overall width 10m, insensitive at low flows. Drowning and damage to the exit transition (repaired 1992) influence the station's performance; recorded flows may over-estimate the true discharge. Net impact of abstractions and discharges on the natural, responsive flow pattern is minimal; motorway runoff can, however, be significant. # Cobbins Brook drains an impervious (London Clay) catchment which includes part of Epping Forest and significant urban development in the vicinity of the gauging station.

038021	**Turkey Brook at Albany Park** C.A: 42.2 km²	**71-85**	*663*		**155**		**0.21**	**20.7**	**30/05 1979**	**0.00**	**15/09 1973**	**0.5**	**0.06**	**0.01**
M.A: NRA-T	Level: 17m Local Number: 5349													
F.A.R: PG	B.F.I: .21 Sensitivity: 60.0	1986	734	111	186	120	0.25	5.7	02/01	0.01	05/10	0.7	0.10	0.01
		1987	732	110	190	123	0.25	10.7	09/10	0.01	13/07	0.5	0.08	0.02
		1988	700	106	197	127	0.26	10.3	29/01	0.01	13/08	0.7	0.06	0.02
		1989	638	96	130	84	0.17	7.7	16/03	0.00	08/09	0.4	0.04	0.01
		1990	538	81	100	65	0.13	11.5	03/02	0.00	22/07	0.3	0.02	>0.00

Comment: Flat V weir, 6m broad (insensitive) in a concrete-lined channel. All but extreme floods contained. Structure remains modular. Very responsive flow regime. Minor net export due to groundwater abstractions. Large ornamental lake in headwaters. # A largely impervious catchment (Tertiary clays and glacial deposits). The headwaters drain Enfield Chase but there is significant urban development near the gauging station.

038022	**Pymmes Brook at Edmonton Silver Street** C.A: 42.6 km²	**54-85**	*684*		**363**		**0.49**	**37.1**	**20/07 1965**	**0.04**	**12/09 1969**	**1.0**	**0.31**	**0.10**
M.A: NRA-T	Level: 11m Local Number: 5369													
F.A.R: N	B.F.I: .49 Sensitivity: 42.0	1986	769	112	410	113	0.55	19.8	19/10	0.18	06/10	1.2	0.35	0.20
		1987	752	110	408	112	0.55	24.8	09/10	0.18	29/09	1.0	0.31	0.20
		1988	692	101	359	99	0.48	26.8	08/05	0.15	14/08	1.0	0.26	0.17
		1989	637	93	322	89	0.44	16.2	20/12	0.16	03/06	0.9	0.24	0.18
		1990	545	80	300	83	0.41	20.1	03/02	0.12	22/07	0.8	0.25	0.14

Comment: Crump weir (crest width: 6.16m). No confirmatory gaugings at high flows. Rarely overtopped. Drowns regularly (0.7m stage) - flows corrected since 1982; previous high flows under review. Currently no significant abstractions or discharges. # Impervious (London Clay) catchment. Pymmes Brook rises on Enfield Chase but catchment is now > 80% urban.

038024	**Small River Lee at Ordnance Road** C.A: 41.5 km²	**73-85**	**626**		**255**		**0.33**	**18.7**	**31/05 1983**	**0.01**	**25/08 1976**	**0.6**	**0.24**	**0.07**
M.A: NRA-T	Level: 15m Local Number: 5339													
F.A.R: G	B.F.I: .46 Sensitivity: 22.9	1986	706	113	226	89	0.30	4.0	02/01	0.07	03/07	0.6	0.21	0.09
		1987	717	115	286	112	0.38	7.5	09/10	0.08	29/09	0.7	0.24	0.11
		1988	672	107	278	109	0.36	8.4	29/01	0.06	09/09	0.8	0.20	0.10
		1989	589	94	197	77	0.26	8.1	16/03	0.05	03/12	0.5	0.14	0.07
		1990	515	82	219	86	0.29	12.2	03/02	0.04	02/12	0.5	0.20	0.07

Comment: Flat V weir (1:10 cross-slope), 8m wide. Subject to drowning - crest tapping does not operate effectively. Minor impact of artificial influences on flows, low discharges affected by gravel workings and pumped drainage from the M25 can be important. # A predominantly impervious (clay), responsive catchment with substantial superficial cover. Suburban in the valley, rural headwaters with considerable woodland.

038026	**Pincey Brook at Sheering Hall** C.A: 54.6 km²	**74-85**	**634**		**178**		**0.31**	**13.5**	**22/10 1982**	**0.00**	**27/08 1976**	**0.7**	**0.11**	**0.02**
M.A: NRA-T	Level: 45m Local Number: 5169													
F.A.R: SPI	B.F.I: .39 Sensitivity: 40.0	1986	659	104	176	99	0.31	5.7	03/01	0.03	02/08	0.8	0.16	0.04
		1987	724	114	258	145	0.45	**17.6**	**09/10**	0.05	14/07	0.7	0.19	0.07
		1988	680	107	237	133	0.41	15.0	29/01	0.05	16/08	0.9	0.15	0.05
		1989	590	93	146	82	0.25	12.1	16/03	0.02	09/08	0.5	0.08	0.03
		1990	485	76	119	67	0.21	17.2	03/02	0.01	06/08	0.5	0.05	0.02

Comment: Flat V weir (1:10.9 cross-slope), width 4.02m. Minor impact of artificial influences. Spray irrigation can be significant (especially in the upper part of the catchment). Storage reservoir regulates the runoff from Stansted Airport. # Pervious (Chalk) headwaters, mainly London Clay in the lowest reaches. Land use is mainly agricultural but the Pincey Brook drains Stansted Airport and Hatfield Forest.

	Period	Rainfall (mm)	% of pre1986	Runoff (mm)	% of pre1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
038028 **Stansted Brook at Gypsy Lane** C.A: 25.9 km²	**76-85**	*663*		**95**		**0.08**	**3.7**	**01/02 1979**	**0.01**	**31/07 1977**	**0.2**	**0.04**	**0.02**
M.A: NRA-T Level: 61m Local Number: 5129													
F.A.R: SPG B.F.I: .44 Sensitivity: 40.0	1986	694	105	95	100	0.08	0.8	20/11	0.02	14/08	0.2	0.05	0.02
Comment: Flat V weir (1:10 cross-slope) in slightly trapezoidal channel (3.5m wide). Modular. All flows contained. Some early data (from 1964) available for a limited range weir downstream. Abstractions result in considerable reduction in runoff. Flows also influenced by motorway runoff and upstream storage lagoon (Stansted Airport). Stable discharge at very low flows - due to spring outflows - but subject to artificial disturbance. # Mixed geology: Chalk dipping below Eocene clays; overlain by superficial deposits. Largely rural.	1987	730	110	146	154	0.12	**4.0**	**09/10**	0.02	14/07	0.2	0.06	0.03
	1988	668	101	145	153	0.12	3.9	29/01	0.02	29/08	0.2	0.05	0.03
	1989	586	88	82	86	0.07	2.2	16/03	**0.00**	**25/07**	0.1	0.03	0.02
	1990	480	72	74	78	0.06	3.2	03/02	0.00	22/07	0.1	0.02	0.01
038029 **Quin at Griggs Bridge** C.A: 50.4 km²	**78-85**	**647**		**104**		**0.17**	**12.3**	**05/05 1978**	**0.03**	**01/10 1982**	**0.3**	**0.07**	**0.04**
M.A: NRA-T Level: 67m Local Number: 4939													
F.A.R: G B.F.I: .45 Sensitivity: 30.0	1986	698	108	87	84	0.14	2.4	20/11	0.04	06/10	0.4	0.07	0.04
Comment: Flat V weir, 4.5m wide. Shallow depth of approach. Calibration assumes station is not subject to drowning. Net export of water - increasing from the mid-1980s, groundwater abstractions can be especially significant during droughts e.g. late-1990. Sewage effluent discharge pattern also sometimes detectable. # A mainly impervious catchment (extensive glacial deposits overlying Chalk); agricultural land use predominates.	1987	740	114	150	144	0.24	10.1	02/09	0.05	18/08	0.4	0.08	0.06
	1988	663	102	141	136	0.23	**12.7**	**29/01**	0.06	16/11	0.4	0.10	0.06
	1989	609	94	95	91	0.15	7.2	20/12	0.03	07/12	0.2	0.06	0.03
	1990	470	73	70	67	0.11	9.7	03/02	**0.02**	**03/12**	0.1	0.05	0.03
038030 **Beane at Hartham** C.A: 175.1 km²	**79-85**	**629**		**113**		**0.63**	**14.9**	**28/12 1979**	**0.25**	**28/10 1985**	**0.9**	**0.53**	**0.31**
M.A: NRA-T Level: 35m Local Number: 4890													
F.A.R: PG B.F.I: .77 Sensitivity: 16.3	1986	699	111	88	78	0.49	2.7	20/05	0.27	07/10	0.7	0.44	0.30
Comment: Flat V weir, 8m wide. All flows contained. Modular throughout the flow range; theoretical calibration adopted. Significant groundwater abstractions (particularly in the headwaters) and runoff from Stevenage (see 038012) influence river flows; moderate net export. # Chalk with Drift cover predominates. A mainly rural catchment with scattered woodland - but Stevenage is in the headwaters and the station itself is in Hertford.	1987	707	112	126	112	0.70	8.4	19/11	0.32	20/08	0.9	0.57	0.36
	1988	665	106	148	131	0.82	**15.3**	**29/01**	0.37	18/11	1.3	0.66	0.39
	1989	610	97	86	76	0.48	6.5	21/12	**0.22**	**04/10**	0.7	0.37	0.24
	1990	510	81	81	72	0.45	9.6	03/02	**0.19**	**05/12**	0.7	0.36	0.21
039001 **Thames at Kingston** C.A: 9948.0 km²	**83-85**	*717*		**212**		**66.89**	**1059.0d**	**18/11 1894**	**0.01**	**11/10 1976**	**162.0**	**42.17**	**9.17**
M.A: NRA-T Level: 5m Local Number: 3400													
F.A.R: SRPGEI B.F.I: .64 Sensitivity:	1986	777	108	220	104	69.55	370.0	03/01	8.19	18/10	157.9	53.68	10.54
Comment: Ultrasonic station commissioned in 1974; multi-path operation from 1986. Full range. No peak flows pre-1974 when dmfs derived from Teddington weir complex (70m wide); significant structural improvements since 1883. Some underestimation of pre-1951 low flows. Baseflow sustained mainly from the Chalk and the Oolites. Runoff decreased by major PWS abstractions - naturalised flows available. # Diverse topography, geology and land use which - together with the pattern of water utilisation - has undergone important historical changes.	1987	712	99	214	101	67.66	322.0	13/11	9.18	09/07	144.1	57.11	10.99
	1988	672	94	202	95	63.64	399.0	30/01	8.66	25/08	148.5	34.31	10.61
	1989	667	93	125	59	39.31	320.0	21/12	3.03	27/09	115.3	13.37	4.01
	1990	565	79	140	66	44.27	416.0	08/02	2.32	18/09	132.9	8.03	2.86
039002 **Thames at Days Weir** C.A: 3444.7 km²	**38-85**	**718**		**260**		**28.36**	**349.0d**	**19/03 1947**	**0.05**	**07/07 1976**	**68.0**	**16.40**	**3.29**
M.A: NRA-T Level: 46m Local Number: 1900													
F.A.R: PEI B.F.I: .64 Sensitivity:	1986	765	107	291	112	31.77	125.0d	12/01	4.32	28/09	71.9	22.17	5.36
Comment: Adjustable thin-plate weir (5.48m) plus 15 radial gates replaced, in 1969, a barrage of radial and buck gates. Rating formulae based upon gaugings - tailwater calibration applies for flows > 70 m^3s^{-1}; above 100 m^3s^{-1} overspill occurs. Daily naturalised flows available for POR (equal to gauged flows up to 1973) - allow for Didcot Power Station losses only. # Mixed geology (Oolitic Limestone headwaters, Oxford Clay below). Predominately rural with development concentrated along the valley.	1987	675	94	255	98	27.90	126.0d	08/04	3.05	16/09	53.1	23.26	4.23
	1988	660	92	235	90	25.58	158.0d	27/01	3.81	18/09	63.4	12.25	4.84
	1989	673	94	185	71	20.22	143.0d	23/12	1.39	17/07	51.4	9.60	2.41
	1990	535	75	187	72	20.40	162.0d	11/02	1.10	26/07	58.5	4.91	2.17
039003 **Wandle at Connollys Mill** C.A: 176.1 km²	**62..85**	**736**		**282**		**1.58**	**21.9**	**06/08 1981**	**0.3E**	**29/01 1963**	**2.6**	**1.71**	**0.61**
M.A: NRA-T Level: 10m Local Number: 4180													
F.A.R: GE B.F.I: .85 Sensitivity: 9.2	1986	792	108	366	130	2.04	12.4	03/08	1.30	23/09	2.7	1.90	1.37
Comment: Rectangular critical-depth flume, (5.5m wide). Theoretical calibration. Drowns (and bypassed) during notable floods. Superseded (following channel improvements) Wandle Park immediately upstream (sporadic data available 1939-60). Very artificial flow pattern; runoff enhanced by sewage effluent. Large baseflow component. Topographic catchment substantially exceeds effective drainage area. # The Wandle is spring-fed (Chalk) but catchment is largely London Clay. Urban/suburban with significant areas of parkland.	1987	782	106	393	139	2.20	13.4	09/10	1.50	04/02	2.7	2.12	1.58
	1988	687	93	430	152	2.39	11.8	29/01	1.19	25/12	3.8	2.17	1.35
	1989	628	85	281	100	1.57	13.8	20/12	1.09	28/09	2.1	1.42	1.14
	1990	642	87	292	104	1.63	15.2	03/02	1.03	11/10	2.2	1.46	1.12
039004 **Wandle at Beddington Park** C.A: 122.0 km²	**36..85**	**777**		**42**		**0.16**	**19.8**	**22/10 1981**	**0.00**	**20/04 1973**	**0.3**	**0.12**	**0.01**
M.A: NRA-T Level: 33m Local Number: 4150													
F.A.R: G B.F.I: .77 Sensitivity: 120.0	1986	830	107	54	129	0.21	5.0	03/08	0.12	09/10	0.3	0.19	0.13
Comment: Electromagnetic gauging station installed in a new cut in 1991. Previously: Compound Crump weir (total width: 7.92m; capacity: 13 m^3s^{-1}) superseded (1964) very insensitive broad-crested weir (constructed 1939). Historical record poor; uncertain calibration, algal growth on weir, inaccurate zero setting, siltation etc. Hydrometric problems continued into the 1980s. Complex water utilisation; substantial groundwater pumping. Effective drainage area greater than topographical catchment. # The Wandle rises in Chalk; London Clay predominates in lower catchment. Suburban/urban land use.	1987	816	105	58	138	0.22	8.4	20/10	0.14	29/01	0.3	0.19	0.15
	1988	721	93	73	174	0.28	5.2	05/07	0.10	22/12	0.6	0.23	0.10
	1989	648	83	31	74	0.12	5.0	10/08	0.04	08/12	0.2	0.10	0.04
	1990	677	87	34	81	0.13	4.6	03/02	0.03	16/12	0.2	0.12	0.04
039005 **Beverley Brook at Wimbledon Common** C.A: 43.6 km²	**35..85**	**642**		**388**		**0.54**	**22.4**	**07/04 1960**		**0.9**	**0.44**	**0.20**	
M.A: NRA-T Level: 11m Local Number: 4080													
F.A.R: GE B.F.I: .64 Sensitivity: 11.5	1986	669	104	436	112	0.60	10.1	02/01	0.29	17/07	1.0	0.47	0.33
Comment: Trapezoidal critical-depth flume (overall channel width: 10m). Original station built 1935; flume commissioned in 1940 but no standing-wave formed until invert raised in 1961. Early flow data are of uncertain quality. Large capacity but bypassed during 1968 flood. Artificial flow pattern; runoff enhanced by sewage effluent. Topographic catchment slightly exceeds effective drainage area. # Chalk headwaters but a largely London Clay catchment of urban/suburban character.	1987	674	105	431	111	0.60	15.9	09/10	0.24	20/08	0.9	0.43	0.31
	1988	583	91	420	108	0.58	10.3	29/01	0.32	21/08	1.0	0.44	0.35
	1989	561	87	385	99	0.53	12.3	20/12	0.29	01/11	0.8	0.41	0.32
	1990	523	81	387	100	0.53	14.1	03/02	0.31	01/11	0.9	0.41	0.33
039006 **Windrush at Newbridge** C.A: 362.6 km²	**50-85**	**765**		**289**		**3.33**	**21.6**	**06/12 1960**	**0.11**	**26/08 1976**	**6.6**	**2.60**	**0.75**
M.A: NRA-T Level: 63m Local Number: 1090													
F.A.R: PGI B.F.I: .87 Sensitivity: 16.0	1986	803	105	308	107	3.54	8.3	16/12	0.96	05/10	6.2	3.61	1.09
Comment: Compound broad-crested weir (total crest width 8.3m) with complementary side-spilling weir (14.9m wide) into bypass channel. Subject to drowning. From 1962 a calibration based upon gaugings was adopted. Improvements in the method of water level measurement made in 1969. Runoff diminished by a small net export of water. # A predominantly pervious (Oolitic Limestone) catchment on the dip-slope of the Cotswolds. Mainly rural. Some scattered settlements.	1987	701	92	283	98	3.25	9.5	07/04	0.81	03/10	5.6	3.43	0.90
	1988	683	89	253	88	2.91	10.6	04/02	0.90	11/09	6.5	1.81	1.02
	1989	731	96	199	69	2.29	9.6	20/12	0.45	08/09	5.1	1.75	0.52
	1990	576	75	226	78	2.60	12.8	10/02	0.46	02/09	6.6	1.15	0.51

		Period	Rainfall (mm)	% of pre1986	Runoff (mm)	% of pre1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
039007	**Blackwater at Swallowfield** C.A: 354.8 km²	**52-85**	**714**		**258**		**2.90**	**41.0**	**16/09 1968**	**0.46**	**18/08 1953**	**5.5**	**2.13**	**0.87**
M.A: NRA-T	Level: 42m Local Number: 2469													
F.A.R: GE	B.F.I: .67 Sensitivity: 11.5	1986	772	108	308	119	3.46	25.6	03/01	1.36	02/08	6.3	2.82	1.48
Comment: Two Crump weirs (main 4.6m, side 2.7m wide) superseded original flume, plus side-spilling weir, in 1970. Minor bypassing of the side weir in flood conditions; overflows more frequent pre-1970. Some net import of water - sewage effluent augments flows. Exact delineation of the hydrological catchment is difficult. # Chalk in the headwaters, clay, sands and alluvium in the valley. Substantial and expanding urban development in the catchment but large rural tracts remain; significant areas of heath and woodland.		1987	720	101	310	120	3.48	23.4	10/10	1.35	21/08	5.8	2.81	1.49
		1988	653	91	300	116	3.37	24.8	29/01	1.47	18/08	5.8	2.50	1.59
		1989	677	95	246	95	2.77	23.5	21/12	1.09	06/08	5.1	1.99	1.18
		1990	576	81	262	102	2.95	25.9	03/02	0.97	12/08	5.8	1.75	1.10
039008	**Thames at Eynsham** C.A: 1616.2 km²	**51-85**	**744**		**268**		**13.75**	**82.6d**	**07/12 1960**	**0.13**	**30/09 1976**	**31.4**	**8.80**	**1.35**
M.A: NRA-T	Level: 60m Local Number: 1200													
F.A.R: SPE	B.F.I: .67 Sensitivity:	1986	791	106	308	115	15.79	54.0d	23/11	1.49	14/10	35.6	12.90	1.91
Comment: Complex barrage of gates and weirs, total breadth 30m. Some bypassing at extreme discharges. Early flow data derived from once-daily gaugeboard readings. Naturalised flows available for period of record; off-take for Farmoor reservoir is immediately upstream (operating from 1955). # Geology is mixed - pervious headwaters (Oolitic Limestone), Oxford Clay in lower reaches. Mainly rural with development concentrated along the valley bottom.		1987	702	94	261	97	13.39	57.5d	05/04	0.67	30/09	26.4	12.32	1.34
		1988	695	93	248	93	12.67	70.1d	04/02	1.66	19/09	31.6	6.54	2.19
		1989	716	96	198	74	10.16	72.5d	23/12	0.57	18/08	27.2	4.88	0.87
		1990	568	76	194	72	9.96	75.8d	10/02	0.34	12/09	32.6	1.71	0.47
039010	**Colne at Denham** C.A: 743.0 km²	**52-85**	**720**		**167**		**3.94**	**14.9**	**07/05 1978**	**0.74**	**26/08 1976**	**6.2**	**3.65**	**1.72**
M.A: NRA-T	Level: 34m Local Number: 2870													
F.A.R: GEI	B.F.I: .86 Sensitivity: 14.4	1986			188	113	4.42	9.8	20/05	2.33	13/10	6.1	4.23	2.87
Comment: Twin semi-circular broad-crested weirs (one section subject to drowning). Insensitive - overall crest length 30m. Few high flow gaugings. All flows contained. Complex water utilisation within the catchment, considerable GW abstraction - net diminution in flows. Hydrological and topographical divides do not coincide. # A largely Chalk catchment with clays in the valleys supplemented by extensive gravel tracts. Rural headwaters with considerable suburban development in the lower reaches.		1987	769	107	195	117	4.59	**15.4**	**21/10**	2.73	31/08	6.1	4.21	2.96
		1988	707	98	247	148	5.81	**17.7**	**29/01**	2.69	26/12	8.7	5.92	2.99
		1989	644	89	138	83	3.25	11.1	21/12	1.87	18/10	4.6	3.01	2.11
		1990	564	78	147	88	3.46	11.4	03/02	1.54	12/08	5.1	3.24	1.87
039011	**Wey at Tilford** C.A: 396.3 km²	**54-85**	**859**		**268**		**3.37**	**79.0**	**16/09 1968**	**0.57**	**27/07 1956**	**5.6**	**2.60**	**1.33**
M.A: NRA-T	Level: 48m Local Number: 3040													
F.A.R: GE	B.F.I: .72 Sensitivity: 10.4	1986	933	109	245	91	3.08	24.5	03/01	1.39	06/10	5.2	2.60	1.47
Comment: Crump weir (crest: 12m wide) replaced (in 1972) an informal broad-crested structure (incapable of precise flow measurement). High flows based on gaugings and estimates of overbank flows; some historical flood discharges are under review. Small net export of water. Topographical catchment exceeds the groundwater catchment. # A predominantly pervious catchment (Chalk and Upper Greensand). Mainly rural; mixed woodland in the headwaters.		1987	864	101	260	97	3.27	27.6	12/11	1.39	21/08	5.1	2.65	1.52
		1988	770	90	267	100	3.35	25.0	29/01	1.52	19/09	5.7	2.21	1.58
		1989	784	91	195	73	2.45	24.1	21/12	1.18	31/08	3.9	1.72	1.27
		1990	748	87	217	81	2.73	30.1	03/02	1.12	13/08	4.7	1.75	1.18
039012	**Hogsmill at Kingston upon Thames** C.A: 69.1 km²	**56..85**	**685**		**436**		**0.95**	**26.3**	**06/08 1981**	**0.33**	**09/09 1976**	**1.5**	**0.79**	**0.50**
M.A: NRA-T	Level: 6m Local Number: 3390													
F.A.R: E	B.F.I: .74 Sensitivity: 15.4	1986	720	105	500	115	1.10	11.8	02/01	0.63	05/08	1.7	0.94	0.68
Comment: Rectangular humped flume 9.1m broad situated in a short reach between u/s and d/s bends. Modular to beyond MAF. Responsive regime but sewage effluent dominates the dry weather flow; significant imports of water. Flashy response. Some pre-war data available; station relocated following post-war river works. # A largely urban/suburban catchment in south west London developed mainly on London Clay but headwaters are Chalk (North Downs).		1987	711	104											
		1988	618	90	521	119	1.14	14.4	29/01	0.65	25/12	1.6	0.91	0.72
		1989	589	86	429	98	0.94	13.4	20/12	0.55	29/09	1.3	0.78	0.62
		1990	565	82	451	103	0.99	17.8	03/02	0.55	07/09	1.4	0.82	0.59
039013	**Colne at Berrygrove** C.A: 352.2 km²	**34..85**	**694**		**70**		**0.78**	**15.2**	**28/12 1979**	**0.00**	**03/08 1974**	**1.6**	**0.53**	**0.11**
M.A: NRA-T	Level: 55m Local Number: 2830													
F.A.R: GEI	B.F.I: .67 Sensitivity: 28.2	1986			74	106	0.82	4.0	10/01	0.31	17/08	1.6	0.65	0.36
Comment: Compound Crump Weir superseded (in 1991) compound thin-plate weir (9.0m broad - often drowned and bypassed). Effluent is a major component of low flows - can produce abrupt flow changes. Groundwater catchment difficult to delineate; losses occur (to the Lee) via swallow holes. Runoff also diminished by long term GW abstraction (restoration progamme began in 1991). # A largely pervious (Chalk) catchment. Rural headwaters; considerable urban development in the valley. Extensive gravel workings.		1987	754	109	78	111	0.87	12.9	21/10	0.31	24/08	1.4	0.70	0.38
		1988	697	100	108	154	1.20	12.0	30/01	0.23	22/11	2.2	0.90	0.49
		1989	642	93	51	73	0.57	3.5	17/03	0.05	06/12	1.0	0.43	0.29
		1990	561	81										
039014	**Ver at Hansteads** C.A: 132.0 km²	**56-85**	**712**		**102**		**0.43**	**2.6**	**27/12 1979**	**0.01**	**21/09 1976**	**0.8**	**0.39**	**0.09**
M.A: NRA-T	Level: 61m Local Number: 2819													
F.A.R: G	B.F.I: .86 Sensitivity: 22.2	1986	764	107	67	66	0.28	1.3	20/05	0.11	12/10	0.4	0.28	0.15
Comment: Compound Crump weir - 2 crests, each 2.44m broad - superseded (in 1969) original broad-crested weir (plus bypass channel); the early flow data are of a lesser quality. Topographical catchment area significantly exceeds the hydrological catchment. Flows diminished by large groundwater abstractions (including PWS for Luton) - increased sharply since 1950 changing the river's character (restoration programme began in 1991). # Pervious (Chalk) catchment. Rural headwaters, significant urban development in the lower valley.		1987	782	110	77	75	0.32	1.5	20/10	0.10	28/09	0.5	0.29	0.13
		1988	693	97	142	139	0.59	1.7	29/01	0.20	28/11	1.0	0.54	0.24
		1989	655	92	47	46	0.20	1.0	20/12	0.05	08/12	0.3	0.19	0.06
		1990	577	81	58	57	0.24	1.5	03/02	0.08	17/10	0.5	0.20	0.09
039015	**Whitewater at Lodge Farm** C.A: 44.5 km²	**10-85**	*800*		**250**		**0.35**	**1.6**	**21/11 1974**	**0.08**	**29/08 1949**	**0.6**	**0.32**	**0.16**
M.A: NRA-T	Level: 72m Local Number: 2442													
F.A.R: G	B.F.I: .95 Sensitivity: 16.7	1986	870	109	276	110	0.39	1.0	02/01	0.22	08/10	0.5	0.41	0.23
Comment: Crump weir - full range - superseded (1975) a rectangular thin-plate weir operating since 1910 (data incomplete and of much poorer quality - weir had clinging nappe and damaged crest) - slightly larger C.A. Part of the catchment drains into the Basingstoke Canal; a proportion of this runoff returns to the Whitewater catchment. Stable regime - baseflow dominanted - but some minor u/s disturbance to flow pattern. # Catchment is developed entirely on Chalk. Rural character.		1987	798	100	293	117	0.41	1.1	11/11	0.23	29/09	0.5	0.43	0.25
		1988	702	88	304	122	0.43	1.2	29/01	0.24	16/09	0.7	0.33	0.25
		1989	751	94	193	77	0.27	1.1	20/12	0.15	04/10	0.4	0.25	0.17
		1990	658	82	275	110	0.39	**2.2**	**03/02**	0.14	08/11	0.8	0.30	0.17
039016	**Kennet at Theale** C.A: 1033.4 km²	**61-85**	**779**		**294**		**9.65**	**70.0**	**11/06 1971**	**0.93**	**21/08 1976**	**16.6**	**8.26**	**3.98**
M.A: NRA-T	Level: 43m Local Number: 2290													
F.A.R: RGI	B.F.I: .87 Sensitivity: 6.5	1986	845	108	329	112	10.77	30.7	16/12	4.55	11/10	16.7	10.26	5.56
Comment: Crump weir (15.9m broad) equipped with auxiliary crest and downstream level recorders. All but highest flows contained. Net impact of abstractions and discharges is very limited (but augmentation from W. Berks GW Scheme during droughts). High baseflow component but responsive contribution from the River Enbourne. # A mainly pervious catchment (80% Chalk) but the Enborne is a responsive tributary. Rural headwaters; urban development (and growth) concentrated along the valley.		1987	721	93	306	104	10.04	39.4	12/11	4.43	30/09	14.3	9.56	5.06
		1988	728	93	312	106	10.18	45.0	29/01	4.37	11/09	19.1	7.38	4.56
		1989	705	91	214	73	7.00	39.5	21/12	3.08	18/10	11.9	5.71	3.34
		1990	614	79	264	90	8.64	52.1	07/02	3.10	17/09	18.5	5.72	3.26
039019	**Lambourn at Shaw** C.A: 234.1 km²	**62-85**	**740**		**232**		**1.72**	**5.0**	**13/11 1974**	**0.41**	**22/08 1976**	**2.8**	**1.55**	**0.79**
M.A: NRA-T	Level: 76m Local Number: 2269													
F.A.R: RG	B.F.I: .97 Sensitivity: 13.8	1986	801	108	248	107	1.84	3.1	10/03	0.98	07/10	2.7	1.81	1.04
Comment: Crump weir (10.67m broad) with auxiliary downstream recorder. Possibility of a small overspill in high floods when storage may be provided by Donnington Lake. D/s sluices occasionally influence flows, otherwise artificial disturbance is limited (apart from periods during which the West Berks Groundwater Scheme is operating - providing low flow support). Flow pattern is baseflow dominated. # Pervious (Chalk), rural catchment in the Berkshire Downs.		1987	706	95	246	106	1.82	2.9	04/04	0.94	29/09	2.5	1.75	1.07
		1988	704	95	252	109	1.86	4.1	14/02	0.94	11/11	3.6	1.55	0.97
		1989	671	91	160	69	1.19	2.2	24/05	0.61	09/10	1.7	1.10	0.75
		1990	563	76	204	88	1.51	3.7	01/03	0.52	18/10	2.9	1.19	0.67

		Period	Rainfall (mm)	% of pre1986	Runoff (mm)	% of pre1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
039020	**Coln at Bibury** C.A: 106.7 km^2	**63-85**	**802**		**396**		**1.34**	**5.0**	**22/12 1965**	**0.19**	**23/08 1976**	**2.6**	**1.09**	**0.38**
M.A: NRA-T	Level: 101m Local Number: 660													
F.A.R: GE	B.F.I: .94 Sensitivity: 20.8	1986	895	112	470	119	1.59	3.3	21/12	0.56	16/10	2.8	1.62	0.62
Comment: Crump weir (9.1m broad). Modular throughout the range. Some overspill onto floodplain before design capacity reached. Limited impact of artificial influences on river flows - net import (sewage effluent). Baseflow dominated flow regime. # Pervious (Oolitic Limestone) catchment on the dip-slope of the Cotswolds; predominantly rural.		1987	753	94	398	101	1.35	3.6	07/04	0.50	28/09	2.3	1.34	0.54
		1988	748	93	393	99	1.33	4.3	07/02	0.50	27/08	2.8	0.74	0.52
		1989	813	101	275	69	0.93	3.1	24/12	0.35	17/10	1.9	0.65	0.39
		1990	660	82	366	92	1.24	**5.5**	**11/02**	0.29	10/12	3.2	0.63	0.33
039021	**Cherwell at Enslow Mill** C.A: 551.7 km^2	**65-85**	**690**		**222**		**3.88**	**30.2**	**28/12 1979**	**0.08**	**27/08 1976**	**8.9**	**2.49**	**0.65**
M.A: NRA-T	Level: 65m Local Number: 1460													
F.A.R: PE	B.F.I: .65 Sensitivity: 10.9	1986	735	107	247	111	4.32	18.0	11/01	0.92	17/10	9.9	3.25	1.02
Comment: Asymmetrical compound Crump weir (crest widths: 3.05m and 6.10m) with side-spilling overfall weir - operates when flow exceeds 10 m^3s^{-1}. Level measurement imprecise prior to 1967. Bypassing at high flows has varied in magnitude through time; unsuitable for flood analysis (but good estimation possible from early 1980s). Limited impact of artificial influences on the flow regime. # A largely rural catchment. Geology is mixed with a preponderance of pervious Liassic formations.		1987	657	95	234	105	4.10	16.4	21/11	0.89	01/10	7.7	3.68	1.06
		1988	646	94	209	94	3.65	21.2	25/01	0.89	27/08	9.1	1.90	1.03
		1989	651	94	162	73	2.83	15.4	21/12	0.54	08/09	7.1	1.52	0.60
		1990	532	77	161	73	2.82	19.0	08/02	0.41	10/09	6.9	1.41	0.45
039022	**Loddon at Sheepbridge** C.A: 164.5 km^2	**65-85**	**761**		**413**		**2.15**	**26.4**	**16/09 1968**	**0.52**	**26/08 1976**	**3.6**	**1.69**	**0.92**
M.A: NRA-T	Level: 42m Local Number: 2420													
F.A.R: GEI	B.F.I: .76 Sensitivity: 11.8	1986	794	104	423	102	2.21	18.4	03/01	0.98	11/10	3.8	1.88	1.09
Comment: Two Crump weirs (2.1m crest, plus complementary 6.9m crest oblique to channel flow). Both structures remain modular and all but extreme flows are contained. Net import of water into the catchment. # Headwaters are in the Chalk of the North Downs but the catchment is largely impervious. A predominantly rural catchment, containing some important - and growing - urban centres (including Basingstoke).		1987	707	93	430	104	2.25	16.9	16/10	1.04	30/08	3.4	1.91	1.12
		1988	699	92	440	107	2.29	15.2	29/01	1.17	29/08	3.7	1.89	1.26
		1989	746	98	365	88	1.91	16.4	21/12	0.83	31/08	3.3	1.43	0.90
		1990	601	79	412	100	2.15	21.7	07/02	0.88	16/09	4.1	1.28	0.92
039023	**Wye at Hedsor** C.A: 137.3 km^2	**64-85**	**770**		**230**		**1.00**	**4.4**	**25/09 1981**	**0.25**	**25/12 1973**	**1.5**	**0.99**	**0.45**
M.A: NRA-T	Level: 27m Local Number: 2590													
F.A.R: GI	B.F.I: .93 Sensitivity: 13.8	1986	810	105	240	104	1.04	2.5	02/01	0.75	12/10	1.2	1.07	0.82
Comment: Crump weir, 6.1m broad. Modular throughout the flow range. All but extreme floods contained. The flow regime is baseflow dominated. Runoff decreased by impact of groundwater abstractions (including Didcot PWS) - counteracted by operation of the ALF scheme from 1991. # A mainly pervious (Chalk) catchment with an overburden of glacial deposits on the higher ground. Dip-slope valley in the Chilterns; contains several significant urban/suburban centres.		1987	782	102	253	110	1.10	3.1	20/10	0.88	11/09	1.3	1.08	0.94
		1988	729	95	305	133	1.32	3.2	20/03	0.69	25/11	1.9	1.31	0.72
		1989	692	90	167	73	0.73	3.2	20/12	0.48	09/12	0.9	0.72	0.53
		1990	583	76	198	86	0.86	2.9	03/02	0.41	06/12	1.3	0.78	0.50
039025	**Enborne at Brimpton** C.A: 147.6 km^2	**67-85**	**803**		**270**		**1.27**	**30.6**	**20/01 1975**	**0.02**	**25/08 1976**	**2.7**	**0.74**	**0.19**
M.A: NRA-T	Level: 59m Local Number: 2279													
F.A.R: GI	B.F.I: .54 Sensitivity: 15.8	1986	846	105	303	112	1.42	15.7	19/11	0.21	09/08	3.2	0.94	0.25
Comment: Asymmetrical compound Crump weir (crest widths: 3.0m and 4.6m). Modular range up to 18 m^3s^{-1}. Due to overtopping of the banks, highest flows are under-estimated. Net impact of abstractions (mostly groundwater) and discharges is very limited, but overall there is a net export of water. Impact of West Berks Groundwater Scheme occasionally evident on lows flows (from 1989). # Chalk outcrops in the headwaters but catchment is mainly impervious (Tertiary clays). Land use is principally agricultural.		1987	725	90	251	93	1.17	15.0	11/11	0.17	10/09	2.4	0.88	0.20
		1988	759	95	253	94	1.18	14.5	29/01	0.18	17/08	2.7	0.60	0.22
		1989	758	94	202	75	0.94	16.3	20/12	0.09	07/09	2.2	0.41	0.11
		1990	667	83	229	85	1.07	17.3	01/02	0.07	28/09	2.5	0.30	0.10
039026	**Cherwell at Banbury** C.A: - 199.4 km^2	**66-85**	**693**		**172**		**1.09**	**54.1**	**28/12 1979**	**0.00**	**02/08 1976**	**2.8**	**0.43**	**0.01**
M.A: NRA-T	Level: 89m Local Number: 1420													
F.A.R: P	B.F.I: .40 Sensitivity: 12.0	1986	710	102	176	102	1.12	26.5	10/01	0.02	27/09	2.9	0.55	0.03
Comment: Asymmetrical compound Crump-type weir (crest widths: 3.0m, 8.9m). Modular limit about 22 m^3s^{-1}. Approximately 50 km^2 of the catchment drains directly to the Oxford Canal; some of this runoff returns (via an overfall weir) upstream of Banbury. River flows also diminished by a large upstream abstraction (Grimsbury Source Works); this can appreciably distort the flow hydrograph. Regime is relatively responsive. # Catchment consists mainly of Liassic formations and is rural in character.		1987	646	93											
		1988	650	94										
		1989	643	93	111	65	0.70	10.9	07/04	0.02	06/08	1.9	0.17	0.03
		1990	566	82	102	59	0.65	10.8	08/02	0.01	11/08	1.8	0.14	0.01
039027	**Pang at Pangbourne** C.A: 170.9 km^2	**68-85**	**704**		**118**		**0.64**	**6.5**	**22/11 1974**	**0.07**	**24/08 1976**	**1.1**	**0.55**	**0.23**
M.A: NRA-T	Level: 40m Local Number: 2190													
F.A.R: RGI	B.F.I: .86 Sensitivity: 17.4	1986	739	105	110	93	0.60	1.8	02/01	0.23	08/10	0.9	0.61	0.26
Comment: Crump weir, 4.0m broad with crest tapping. No local bypassing but some overspill occurs into Sulham Brook during extreme floods. Runoff is substantially diminished by increasing groundwater abstractions, otherwise few artificial influences on flows - but West Berks Groundwater Scheme now (post-1988) able to provide low flow support. # Catchment is principally pervious (Chalk) but about 15% is impermeable (Reading Beds, London Clay and Alluvium); Drift also. A largely rural catchment.		1987	690	98	115	97	0.62	2.0	27/03	0.28	03/10	0.9	0.60	0.31
		1988	650	92	128	108	0.69	4.4	29/01	0.28	03/10	1.1	0.50	0.30
		1989	660	94	66	56	0.36	2.6	21/12	0.12	06/12	0.6	0.29	0.17
		1990	531	75	97	82	0.52	3.0	07/02	0.16	19/09	1.0	0.41	0.18
039028	**Dun at Hungerford** C.A: 101.3 km^2	**68-85**	**775**		**236**		**0.76**	**3.5**	**14/11 1974**	**0.19**	**20/09 1976**	**1.3**	**0.65**	**0.32**
M.A: NRA-T	Level: 99m Local Number: 2239													
F.A.R: GN	B.F.I: .95 Sensitivity: 26.3	1986	927	120	259	110	0.83	1.9	15/12	0.36	05/10	1.3	0.87	0.42
Comment: Crump weir, 10.7m broad. Full range and modular. Abstractions and discharges are of minor significance. Small net loss but essentially a natural baseflow-dominated flow regime from the catchment. # A mainly pervious (Chalk) catchment of rural character (chiefly agricultural but the Dun drains part of Savernake Forest).		1987	748	97	220	93	0.71	1.6	01/01	0.32	29/09	1.1	0.65	0.36
		1988	742	96	235	100	0.75	2.4	04/02	0.36	08/09	1.5	0.53	0.38
		1989	704	91	159	67	0.51	1.8	20/12	0.24	10/10	0.9	0.44	0.24
		1990	656	85	191	81	0.61	3.4	03/02	0.22	28/09	1.5	0.34	0.23
039029	**Tillingbourne at Shalford** C.A: 59.0 km^2	**68-85**	**812**		**302**		**0.56**	**6.1**	**15/09 1968**	**0.28**	**23/06 1974**	**0.7**	**0.53**	**0.36**
M.A: NRA-T	Level: 32m Local Number: 3079													
F.A.R: GIN	B.F.I: .89 Sensitivity: 13.9	1986	871	107	299	99	0.56	1.6	03/01	0.39	16/08	0.7	0.54	0.41
Comment: Crump weir, 5.5m broad with crest-tapping; drowning may result from backing-up from the Wey. Some artificial flow regulation, but sensibly natural runoff, very minor effect of abstractions and discharges. # Geology - dominated by the Lower Greensand - nominally pervious but catchment is responsive to heavy rainfall. The Tillingbourne drains from the North Downs; land use is primarily agricultural.		1987	830	102	299	99	0.56	5.1	10/10	0.37	20/08	0.7	0.52	0.39
		1988	716	88	330	109	0.62	4.5	29/01	0.45	16/08	0.8	0.53	0.47
		1989	689	85	253	84	0.47	1.6	20/12	0.34	08/09	0.6	0.43	0.35
		1990	681	84	258	85	0.48	2.2	04/02	0.29	06/08	0.7	0.40	0.32
039030	**Gade at Croxley Green** C.A: 184.0 km^2	**70-85**	**706**		**151**		**0.88**	**4.2**	**27/12 1979**	**0.05**	**03/09 1976**	**1.4**	**0.86**	**0.28**
M.A: NRA-T	Level: 50m Local Number: 2849													
F.A.R: GI	B.F.I: .86 Sensitivity: 26.8	1986	787	111	179	119	1.04	3.3	25/08	0.65	17/10	1.3	1.02	0.77
Comment: Compound Crump-type weir (three sections, total breadth 10.1m). The negligible inflow from the Grand Union Canal via an overfall weir is no longer monitored. The net effect of abstractions and discharges is to make the runoff rather unrepresentative; overall net export of water. # Pervious headwaters (Chalk) with Tertiary deposits (mostly impervious) in the valley. Mixed land use: Rural hills, considerable urban development below.		1987	789	112	203	134	1.18	**4.7**	**10/10**	0.63	26/09	1.5	1.10	0.83
		1988	713	101	250	166	1.45	4.4	07/05	0.64	14/12	2.2	1.41	0.77
		1989	657	93	124	82	0.72	3.7	20/12	0.36	26/11	1.0	0.72	0.43
		1990	576	82	132	87	0.77	3.6	03/02	0.30	14/10	1.3	0.65	0.37

		Period	Rainfall (mm)	% of pre1986	Runoff (mm)	% of pre1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
039033	**Winterbourne St at Bagnor** C.A: 49.2 km²	**62-85**	**727**		**108**		**0.17**	**0.7**	**31/03 1978**	**0.01**	**03/11 1969**	**0.3**	**0.15**	**0.05**
M.A: NRA-T	Level: 81m Local Number: 2264													
F.A.R: RG	B.F.I: .96 Sensitivity: 36.7	1986	775	107	106	98	0.16	0.3	18/02	0.08	15/10	0.2	0.16	0.09
Comment: Crump weir, 3m broad - originally 5.5m but reduced to improve sensitivity (in 1968). Full range. Runoff reduced by groundwater abstractions; for limited periods flows also substantially influenced by pumping, and flow augmentation, associated with the West Berks Groundwater Scheme (e.g. winter 1969/70, 1976 and 1989). # A Chalk catchment; very rural character with low population density.		1987	685	94	104	96	0.16	0.3	04/04	0.07	30/09	0.2	0.17	0.09
		1988	678	93	116	107	0.18	0.4	24/03	0.08	26/09	0.3	0.14	0.09
		1989	669	92	57	53	0.09	0.3	25/04	0.05	02/12	0.1	0.08	0.05
		1990	543	75	102	94	0.16	0.5	11/02	0.05	16/12	0.3	0.12	0.05
039034	**Evenlode at Cassington Mill** C.A: 430.0 km²	**70-85**	**719**		**271**		**3.70**	**26.7**	**28/12 1979**	**0.12**	**25/08 1976**	**8.3**	**2.48**	**0.65**
M.A: NRA-T	Level: 60m Local Number: 1290													
F.A.R: EI	B.F.I: .71 Sensitivity: 11.9	1986	788	110	328	121	4.47	17.3	16/12	0.96	17/10	9.6	3.31	1.13
Comment: Complex configuration - compound Crump weir (crests: 4.0m and 3.7m) plus two side-spilling weirs (broad-crested, 7.5m broad and Crump 4.6m broad); the latter discharge to a canal section. Theoretical calibration. Near-natural catchment but small net import of water and some limited storage in Blenheim Lake. # Headwaters largely impervious (Lias Series), pervious Oolitic Limestone in lower reaches. Rural.		1987	690	96	292	108	3.98	18.1	08/04	0.77	30/09	7.6	3.58	0.87
		1988	643	89	249	92	3.39	20.4	02/02	0.84	27/08	8.4	1.67	0.91
		1989	691	96	214	79	2.91	20.5	21/12	0.55	07/09	7.4	1.57	0.57
		1990	536	75	205	76	2.80	21.5	08/02	0.34	10/09	7.8	0.95	0.39
039035	**Churn at Cerney Wick** C.A: 124.3 km²	**69-85**	**849**		**220**		**0.87**	**4.7**	**31/01 1971**	**0.00**	**13/10 1976**	**2.2**	**0.56**	**0.01**
M.A: NRA-T	Level: 82m Local Number: 290													
F.A.R: GEI	B.F.I: .81 Sensitivity: 90.0	1986	923	109	281	128	1.11	3.6	15/12	0.08	17/10	2.4	1.02	0.14
Comment: Asymmetrical compound Crump weir (crests: 1.8m and 3.7m wide). Full range. Very limited head during periods of low flow, hence sensitivity problems. Groundwater abstractions result in significant loss to the catchment. # Primarily a pervious (Oolitic Limestone) catchment but with Oxford Clay in lower reaches. Rural but Cirencester and the Cotswold Wildlife Park close to Cerney Wick.		1987	787	93	228	104	0.90	3.5	04/04	0.05	03/10	2.0	0.86	0.08
		1988	782	92	221	100	0.87	4.6	04/02	0.05	29/08	2.5	0.29	0.09
		1989	835	98	156	71	0.62	3.6	24/12	0.01	14/10	1.8	0.28	0.02
		1990	684	81	188	85	0.74	4.6	07/02	0.00	16/09	2.5	0.10	
039036	**Law Brook at Albury** C.A: 16.0 km²	**68..85**	**826**		**223**		**0.11**	**0.8**	**06/08 1981**	**0.07**	**22/09 1974**	**0.1**	**0.11**	**0.08**
M.A: NRA-T	Level: 57m Local Number: 3074													
F.A.R: G	B.F.I: .93 Sensitivity: 20.0	1986	895	108	208	93	0.11					0.1	0.10	0.09
Comment: Rectangular thin-plate weir, 2.7m broad. Flood discharges near to weir capacity and bypassing occurs on the right bank. The baseflow dominated runoff is diminished by groundwater abstractions. # Small, relatively steep, rural catchment draining from the North Downs; mainly pervious (Upper Greensand) but responsive on occasions.		1987	853	103	236	106	0.12	0.6	20/10	0.10	05/03	0.1	0.12	0.10
		1988	733	89	266	119	0.13	0.6	29/01	0.11	13/11	0.1	0.13	0.12
		1989	697	84	227	102	0.11	0.3	20/12	0.08	03/08	0.1	0.11	0.08
		1990	697	84	190	85	0.10	0.5	03/02	0.07	06/08	0.1	0.09	0.07
039037	**Kennet at Marlborough** C.A: 142.0 km²	**72-85**	**813**		**193**		**0.87**	**6.1**	**25/02 1977**	**0.00**	**25/11 1976**	**2.1**	**0.56**	**0.06**
M.A: NRA-T	Level: 127m Local Number: 2210													
F.A.R: G	B.F.I: .95 Sensitivity: 54.2	1986	860	106	226	117	1.02	3.1	29/01	0.22	08/11	1.9	1.05	0.25
Comment: Crump weir, 6.1m broad, with crest tapping plus Crump-crested side weir for high flows. Full range and not subject to drowning. Runoff is low and baseflow dominated. The hydrological catchment is smaller than the topographical catchment; some diminution in flow also results from groundwater abstraction. # Chalk catchment; predominantly rural.		1987	743	91	196	102	0.88	2.4	01/01	0.22	06/10	1.6	0.76	0.24
		1988	750	92	195	101	0.88	3.6	04/02	0.17	22/10	2.2	0.46	0.18
		1989	726	89	109	56	0.49	1.7	14/03	0.07	02/12	1.2	0.33	0.10
		1990	624	77	154	80	0.70	3.9	11/02	0.04	27/12	2.1	0.28	0.05
039038	**Thame at Shabbington** C.A: 443.0 km²	**68..85**	**642**		**188**		**2.64**	**27.7**	**07/05 1978**	**0.12**	**26/08 1976**	**6.0**	**1.33**	**0.42**
M.A: NRA-T	Level: 58m Local Number: 1970													
F.A.R: GE	B.F.I: .54 Sensitivity: 17.4	1986	729	114										
Comment: Broad-crested weir (width: 10.5m), current meter calibration - imprecise at high flows when flows often exceed bankfull; some bypassing may occur on right bank. New gauging station commissioned downstream in 1990. Responsive regime (small flow contribution from the scarp of the Chilterns). # A rural catchment (but Aylesbury is in the headwaters) developed mainly on clays and Greensand.		1987	680	106											
		1988	635	99	223	119	3.13	25.9	25/01	0.75	24/06	6.3	1.61	0.84
		1989	600	93	160	85	2.25	23.8	27/02	0.49	09/09	5.3	0.96	0.52
		1990	521	81	150	80	2.10	**28.4**	**04/02**	0.35	08/08	4.1	0.71	0.38
039040	**Thames at West Mill Cricklade** C.A: 185.0 km²	**72-85**	**786**		**251**		**1.47**	**10.8**	**09/02 1974**	**0.01**	**28/08 1976**	**4.0**	**0.68**	**0.07**
M.A: NRA-T	Level: 79m Local Number: 190													
F.A.R: PGEI	B.F.I: .62 Sensitivity: 28.6	1986	863	110	322	128	1.89	8.0	30/01	0.08	07/08	5.1	1.21	0.14
Comment: Compound Crump weir (crests: 2.5m and 4.5m wide) with crest tapping. Bypassing during extreme floods. Runoff somewhat diminished by groundwater abstractions. # Mixed geology - the Thames rises on the Cotswolds (Oolitic Limestone), lower catchment is chiefly Oxford Clay. Land use is primarily agricultural. Extensive gravel workings in the main valley.		1987	751	96	244	97	1.43	8.2	05/04	0.10	17/09	3.3	1.17	0.13
		1988	750	95	260	104	1.52	9.7	04/02	0.16	25/06	4.1	0.72	0.22
		1989	766	97	208	83	1.22	7.8	21/12	0.03	06/09	3.9	0.54	0.04
		1990	625	80	175	70	1.02	8.0	08/02	0.02	20/09	3.8	0.13	0.04
039042	**Leach at Priory Mill Lechlade** C.A: 76.9 km²	**72-85**	**713**		**315**		**0.77**	**5.1**	**30/12 1979**	**0.04**	**26/08 1976**	**1.8**	**0.46**	**0.10**
M.A: NRA-T	Level: 72m Local Number: 890													
F.A.R: PE	B.F.I: .78 Sensitivity: 32.0	1986	767	108	353	112	0.86	3.1	25/11	0.07	16/10	2.0	0.68	0.10
Comment: Crump weir, 4.5m broad with crest tapping - downstream weed growth and backing-up from the Thames can result in drowning. Full range. Effluent derived from outside the catchment results in small net augmentation of runoff; otherwise artificial influences are minimal. # A rural catchment on the dip-slope of the Cotswolds; mainly pervious.		1987	703	99	318	101	0.78	3.1	07/04	0.06	02/10	1.8	0.74	0.09
		1988	701	98	300	95	0.73	4.2	04/02	0.11	16/09	2.0	0.35	0.13
		1989	739	104	232	74	0.56	4.5	23/12	**0.02**	**09/09**	1.4	0.36	0.02
		1990	567	80	198	63	0.48	3.4	14/02	**0.01**	**13/08**	1.7	0.08	0.02
039043	**Kennet at Knighton** C.A: 295.0 km²	**62..85**	**789**		**277**		**2.59**	**13.7**	**03/06 1975**	**0.10**	**21/07 1976**	**5.2**	**2.06**	**0.63**
M.A: NRA-T	Level: 105m Local Number: 2230													
F.A.R: G	B.F.I: .95 Sensitivity: 21.1	1986	863	109	298	108	2.78	8.1	30/01	0.90	17/10	4.9	2.87	0.97
Comment: Two Crump weirs: 13.7m crest on the main channel plus a 1.7m crest on the Littlecote Stream. Very flat gradient - main river is subject to frequent drowning; very high submergence ratios - nearby station records may be used to assess the daily flow. Some pre-1980 flows uncorrected, data under review. Some bypassing during floods. Flows slightly diminished by groundwater abstraction. Baseflow dominates the flow regime. # Chalk catchment. Mainly rural (includes part of Savernake Forest) but some urban growth in the valley.		1987	742	94	279	101	2.61	5.0	01/01	0.85	30/09	4.4	2.27	1.00
		1988	746	95	268	97	2.50	8.1	14/02	0.79	17/10	5.7	1.64	0.86
		1989	717	91	162	58	1.51	3.9	11/04	0.42	29/11	3.0	1.25	0.45
		1990	628	80	190	69	1.78	6.6	01/03	0.33	19/12	4.9	1.00	0.38
039044	**Hart at Bramshill House** C.A: 84.0 km²	**72-85**	*706*		**274**		**0.73**	**11.7**	**21/11 1974**	**0.10**	**26/08 1976**	**1.4**	**0.52**	**0.21**
M.A: NRA-T	Level: 50m Local Number: 2458													
F.A.R: E	B.F.I: .64 Sensitivity: 18.1	1986	767	109	320	117	0.85	9.1	03/01	0.23	11/10	1.7	0.66	0.25
Comment: Crump weir, 4.0m broad, with crest and downstream tappings. Banks overtopped in extreme floods. Flows augmented by effluent derived from outside the catchment. # A mainly impermeable (Eocene formations with some overburden of glacial deposits) catchment. Mixed land use - largely rural with considerable woodland but includes growing urban development near headwaters (Farnborough and Fleet).		1987	715	101	324	118	0.86	**12.7**	**20/10**	0.24	16/08	1.4	0.64	0.27
		1988	646	92	306	112	0.81	9.3	01/02	0.31	16/09	1.5	0.54	0.33
		1989	668	95	227	83	0.61	5.2	20/12	0.20	21/09	1.3	0.40	0.21
		1990	570	81	274	100	0.73	10.9	03/02	0.17	07/08	1.5	0.34	0.19

		Period	Rainfall (mm)	% of pre1988	Runoff (mm)	% of pre1988	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
039046	**Thames at Sutton Courtenay** C.A: 3414.0 km²	**73..85**	**706**		**233**		**25.27**	**221.0**	**18/11 1973**			**70.6**	**20.45**	**2.66**
M.A: NRA-T	Level: 45m Local Number: 1800	1986			307	132	33.20	118.0	03/01	4.46	28/09			
F.A.R: PEI	B.F.I: .62 Sensitivity:	1987						121.0	08/04	3.53	01/10			
Comment: Multi-path ultrasonic gauging station replaced (1982) original - first in the UK - single path device; early data of lower precision. Rectangular channel in straight, navigable reach. Levels, and the velocity profile relative to the four ultrasonic flightpaths, influenced by d/s sluices. Some negative flows in 1976. All but highest flows contained. Station between offtake and discharge for Didcot P.S. (naturalised flows available). # Mixed geology (Oolitic Limestone headwaters, Oxford Clay below). Mainly rural with development concentrated in the valleys.		1988			238	102	25.69	152.0	27/01	3.78	19/09	66.6	11.98	4.60
		1989	675	96				145.0	22/12					
		1990	537	76	179	77	19.41	158.0	10/02	0.85	10/09	59.1	4.14	1.13
039049	**Silk Stream at Colindeep Lane** C.A: 29.0 km²	**73..85**	**696**		**286**		**0.26**	**40.5**	**05/10 1984**	**0.01**	**04/06 1974**	**0.6**	**0.12**	**0.04**
M.A: NRA-T	Level: 40m Local Number: 3829	1986	787	113	298	104	0.27	7.7	19/10	0.03	01/08	0.7	0.15	0.04
F.A.R:	B.F.I: .28 Sensitivity: 27.5	1987	745	107	305	107	0.28	22.8	20/10	0.04	29/09	0.6	0.11	0.04
Comment: Flat V weir (1:10 cross slope, width: 8.5m). Theoretical rating. Further gaugings needed to establish modular range. Some bypassing during floods. Pre-1973 data (of limited quality) available for two earlier stations on the Silk Stream - significant river improvements undertaken in the 1950s. Responsive regime. Net impact of abstractions and discharges uncertain; artificial influences evident at lowflows. # Catchment is largely London Clay. Rural/suburban headwaters, heavily urbanised below.		1988	698	100	261	91	0.24	17.7	08/05	0.03	24/06	0.6	0.09	0.04
		1989	607	87	225	79	0.21	15.2	08/07	0.04	22/06	0.5	0.08	0.04
		1990	553	79	198	69	0.18	16.9	03/02	0.04	23/07	0.4	0.07	0.04
039051	**Sor Brook at Adderbury** C.A: 106.4 km²	**67..85**	**671**		**248**		**0.84**	**5.8**	**28/12 1979**	**0.00**	**26/08 1976**	**1.7**	**0.61**	**0.18**
M.A: NRA-T	Level: 28m Local Number: 1439	1986	723	108	264	106	0.89	4.8	10/01	0.28	27/07	1.6	0.74	0.34
F.A.R: PEI	B.F.I: .74 Sensitivity: 18.4	1987	652	97	263	106	0.89	4.6	07/04	0.26	15/09	1.4	0.84	0.29
Comment: Crump weir, commissioned in 1982, superseded a compound broad-crested weir (3.6m broad) plus sluice gates - monitoring the sluice position complicated the computation of the early flow data. High flow calibration for the Crump weir yet to be fully defined. Some bypassing during floods. Minor impact of artificial disturbances on the flow regime. # An impervious (Middle Lias), mainly rural catchment.		1988	646	96											
		1989	653	97										
		1990	506	75										
039052	**The Cut at Binfield** C.A: 50.2 km²	**57..85**	*692*		**222**		**0.35**	**18.1**	**01/06 1981**	**0.00**	**30/11 1960**	**0.8**	**0.19**	**0.05**
M.A: NRA-T	Level: 46m Local Number: 2620	1986	719	104	283	127	0.45	9.6	02/01	0.07	16/08	1.0	0.29	0.09
F.A.R: EI	B.F.I: .44 Sensitivity: 16.7	1987	666	96	254	114	0.40	8.9	20/10	0.07	27/07	0.8	0.27	0.10
Comment: Broad-crested weir (crest: 13.7m wide) plus adjustable low flow notch (crest: 1.22m wide) at outfall from an ornamental lake. Early flow data less precise (discharge was originally over the insensitive weir only). Significant effluent component during periods of low flow. Small net import of water. # An impermeable catchment (London Clay). Rural headwaters, including considerable woodland but major New Town (Bracknell) development below - almost 30 per cent urban overall.		1988	636	92	267	120	0.42	8.3	29/01	0.10	16/08	0.8	0.27	0.12
		1989	623	90	254	114	0.40	7.5	24/05	0.09	17/07	0.8	0.26	0.10
		1990	511	74	227	102	0.36	11.6	03/02	0.08	15/07	0.6	0.21	0.10
039053	**Mole at Horley** C.A: 89.9 km²	**61-85**	**820**		**436**		**1.24**	**63.3**	**15/09 1968**	**0.11**	**22/08 1976**	**2.6**	**0.69**	**0.23**
M.A: NRA-T	Level: 52m Local Number: 3230	1986	849	104	485	111	1.38	27.1	21/11	0.30	17/08	2.8	0.82	0.34
F.A.R: PE	B.F.I: .44 Sensitivity: 13.0	1987	825	101	513	118	1.46	32.2	15/10	0.35	12/07	2.4	0.81	0.40
Comment: Compound broad-crested weir (central notch: 2.44m broad) plus flanking crests: 10.96m broad), rated section at high flows. Primary monitoring site is now downstream (see 039069). Small net import of water (sewage effluent). # Catchment is mainly impermeable (chiefly Weald Clay) with mixed land use - includes Crawley, Gatwick Airport and considerable woodland.		1988	731	89	453	104	1.29	24.7	27/01	0.27	26/06	2.4	0.63	0.38
		1989	673	82	357	82	1.02	23.1	20/12	0.27	20/07	1.9	0.53	0.31
		1990	721	88	429	98	1.22	29.8	03/02	0.32	26/08	2.2	0.55	0.35
039054	**Mole at Gatwick Airport** C.A: 31.8 km²	**61-85**	**832**		**356**		**0.36**	**22.3**	**15/09 1968**	**0.00**	**27/08 1984**	**0.9**	**0.12**	**0.02**
M.A: NRA-T	Level: 57m Local Number: 3210	1986	850	102	314	88	0.32	11.6	02/01	0.01	12/09	0.8	0.10	0.02
F.A.R: PE	B.F.I: .24 Sensitivity: 20.0	1987	817	98	313	88	0.32	10.1	15/10	0.02	12/07	0.7	0.09	0.02
Comment: Rectangular flume (2.74m broad) in culvert below airport runway plus Crump weir in new overflow channel. Full range station. Very limited disturbance to the responsive, natural flow regime (Gatwick Airport is not in the catchment); small net export of water. # Impervious (Weald Clay) catchment; largely rural.		1988	721	87	279	78	0.28	8.2	27/01	0.02	11/09	0.7	0.07	0.02
		1989	665	80	198	56	0.20	7.3	20/12	0.01	29/09	0.5	0.04	0.01
		1990	703	84	247	69	0.25	11.1	03/02	0.01	26/07	0.6	0.04	0.01
039055	**Yeading Bk West at Yeading West** C.A: 17.6 km²	79..85	*634*		229		0.13	8.0	27/12 1979	0.00	04/09 1983	0.4	0.11	>0.00
M.A: NRA-T	Level: 32m Local Number: 3620	1986	731	115	302	132	0.17	3.1	02/01	0.03	01/07	0.4	0.09	0.03
F.A.R:	B.F.I: .40 Sensitivity: 194.9	1987	732	115	235	103	0.13	6.4	20/10	0.03	14/08	0.3	0.06	0.03
Comment: Flat V weir (width: 5.02m, 1:20 cross-slope) u/s of culvert below the Western Avenue. Limited depth of approach - structure drowns readily but satisfactory gauged rating. Additional floodplain storage (provided as part of 1983 river improvement scheme) increased lag times. Since 1983 some bypassing - via a feeder ditch - has occurred. Persistent problems with zero setting of stage recorder in 1970s. # Impervious, suburban catchment in north-west London.		1988	669	106	249	109	0.14	7.9	08/05	0.03	17/09	0.3	0.07	0.03
		1989	598	94	191	83	0.11	4.5	20/12	0.02	18/07	0.2	0.05	0.03
		1990	515	81	163	71	0.09	5.8	03/02	0.02	11/09	0.2	0.04	0.03
039057	**Crane at Cranford Park** C.A: 61.7 km²	**78..85**			**265**		**0.52**	**16.8**	**08/04 1979**	**0.01**	**16/08 1982**	**1.1**	**0.28**	**0.09**
M.A: NRA-T	Level: 23m Local Number: 3660	1986	701		268	101	0.52	14.0	02/01	0.05	26/07	1.2	0.29	0.06
F.A.R:	B.F.I: .36 Sensitivity: 32.4	1987	703		312	118	0.61	15.4	21/10	0.13	16/08	1.3	0.30	0.16
Comment: Non-standard critical depth flume improvised from the invert of a footbridge. Straight reach with banks stabilised by timber revetments. Calibration is theoretical - gaugings needed to verify rating and determine the modular limit. Left bank bypassing occurs above a stage of about 1.3m. Complex water utilisation. Small natural import of water from the Colne catchment. A relatively responsive regime. # A flat, generally impervious (mostly London Clay) catchment of suburban character - includes Northolt Airport.		1988	641		292	110	0.57	16.3	08/05	0.13	14/09	1.1	0.26	0.16
		1989	584		240	91	0.47	11.6	20/12	0.12	24/09	1.0	0.23	0.13
		1990	488		206	78	0.40	15.0	03/02	0.12	29/07	0.8	0.20	0.13
039058	**Pool at Winsford Road** C.A: 38.3 km²	**78..85**			**230**		**0.28**		**27/02 1979**	**0.06**	**12/09 1978**	**0.5**	**0.20**	**0.11**
M.A: NRA-T	Level: 17m Local Number: 4369	1986	717		247	107	0.30		03/08	0.10	09/08	0.6	0.23	0.12
F.A.R: G	B.F.I: .57 Sensitivity: 24.9	1987	725		255	111	0.31		20/10	0.12	10/05	0.6	0.21	0.14
Comment: Trapezoidal flume; breadth at the critical section: 3.05m. Full range. Theoretical calibration. Runoff is reduced by groundwater abstractions and artificial influences evident at low flows. Some earlier data (1961-71) exist for an u/s site Selworthy Road (039827). # The Pool River rises as Chalk springs (below Addington Hill) but flows mostly over impervious Eocene deposits. Land use is principally of a suburban/urban character (south London). Data under review.		1988	618		245	107	0.30		27/01	0.12	22/08	0.5	0.22	0.13
		1989	584		211	92	0.26		10/08	0.10	19/09	0.4	0.17	0.12
		1990	551		217	94	0.26		03/02	0.07	26/09	0.5	0.18	0.10
039061	**Letcombe Brook at Letcombe Bassett** C.A: 2.7 km²	**71..85**			**1016**		**0.09**	**1.1**	**04/01 1971**	**0.00**	**01/07 1976**	**0.2**	**0.05**	**>0.00**
M.A: NRA-T	Level: 106m Local Number: 1761	1986	788											
F.A.R:	B.F.I: .96 Sensitivity:	1987	710		1083	107	0.09					0.2	0.09	0.03
Comment: Flat V weir (3.0 m wide) superseded original rectangular notch (1.0 m wide) in 1981. Baseflow dominated regime. Flows substantially reduced by pumping from the Childrey Warren boreholes; ALF (augmentation of low flows) scheme under development (1992). # Entirely rural catchment on scarp slope of the Lambourn Downs; Chalk - Drift free but some peat on the highest hills in the south.		1988	732		1158	114	0.10	0.3	16/02	0.02	25/11	0.2	0.07	0.03
		1989	659		627-	62	0.05	0.1d	17/04	0.00	17/12	0.1	0.04	0.01
		1990	565		764	75	0.07	0.3d	14/02	0.01	18/12	0.2	0.04	0.01

	Period	Rainfall (mm)	% of pre1986	Runoff (mm)	% of pre1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
039065 Ewelme Brook at Ewelme C.A: 13.4 km²	**70..85**			**108**		**0.05**	**0.3**	**14/08 1980**	**0.00**	**07/01 1974**	**0.1**	**0.05**	**0.01**
M.A: NRA-T Level: 66m Local Number: 1995													
F.A.R: B.F.I: .98 Sensitivity:	1986	754		122	113	0.05	0.1	10/03	0.03	09/12	0.1	0.05	0.03
Comment: Flat V weir (width: 2m) installed in 1980 superseded (after 4-year break) a rectangular thin-plate weir (width: 1.524m). Limited head - algal growth on crest can be a problem. Natural, stable flow regime. Fish farming and cress beds ceased activity in 1991. Topographical and groundwater drainage areas may differ significantly. # The Ewelme Brook drains from a dry valley in the Chalk escarpment. Land use is rural/agricultural. Ewelme village is the only settlement.	1987	681		111	103	0.05	0.1	14/05	0.03	01/11	0.1	0.05	0.03
	1988	631		121	112	0.05	0.1	23/03	0.02	31/12	0.1	0.05	0.02
	1989	634		57	53	0.02	0.1	28/04	0.01	11/12	0.0	0.02	0.01
	1990	534		109	101	0.05	0.1d	24/03	0.01	17/12	0.1	0.04	0.01
039068 Mole at Castle Mill C.A: 316.0 km²	**71..85**	**773**		**358**		**3.59**	**100.0**	**28/12 1979**	**0.45**	**04/09 1972**	**8.6**	**1.87**	**0.71**
M.A: NRA-T Level: 39m Local Number: 3270													
F.A.R: GE B.F.I: .43 Sensitivity: 19.4	1986	826	107	417	116	4.18	78.6	03/01	0.84	08/10	9.8	2.25	0.93
Comment: Crump weir (15.0m broad) superseded original mill weir (velocity-area rated) in 1978. Crump weir is modular to structurefull. All but very high flows contained. Small net import of water (sewage effluent). # Impervious (mostly Weald Clay) catchment. Mixed land use.	1987	815	105	413	115	4.14	71.8	16/10	0.84	13/07	9.0	2.13	0.99
	1988	723	94	381	106	3.81	69.8	29/01	0.89	19/09	8.2	1.65	1.07
	1989	666	86	281	78	2.81	53.8	20/12	0.74	07/08	6.0	1.30	0.79
	1990	699	90	311	87	3.12	67.0	03/02	0.74	27/08	6.2	1.18	0.81
039069 Mole at Kinnersley Manor C.A: 142.0 km²	**72..85**	**811**		**433**		**1.95**	**68.5**	**28/12 1979**	**0.12**	**01/09 1976**	**4.2**	**0.94**	**0.26**
M.A: NRA-T Level: 48m Local Number: 3240													
F.A.R: E B.F.I: .39 Sensitivity: 19.3	1986	832	103	490	113	2.21	42.6	20/11	0.31	12/09	4.7	1.15	0.36
Comment: Rectangular flume, 7m wide at throat, plus 1.86m rectangular side sluice. Calibration based on current meter gaugings which extend beyond bankfull. Significant net import of water (sewage effluent increasing through time) but otherwise moderate overall impact of artificial influences. # A largely impervious catchment (mostly Weald Clay). Very mixed land use - rural tracts and urban centres; Crawley and Gatwick Airport are in the catchment.	1987	810	100	538	124	2.42	56.4	15/10	0.39	12/07	4.7	1.15	0.45
	1988	723	89	498	115	2.24	41.9	29/01	0.49	24/08	4.5	0.95	0.54
	1989	674	83	391	90	1.76	35.7	20/12	0.44	06/09	3.5	0.83	0.46
	1990	717	88	428	99	1.93	45.5	03/02	0.43	29/07	3.8	0.78	0.48
039073 Churn at Cirencester C.A: 84.0 km²	**79-85**			**329**		**0.88**	**2.9**	**19/03 1982**	**0.05**	**12/09 1984**	**2.0**	**0.69**	**0.08**
M.A: NRA-T Level: 111m Local Number: 260													
F.A.R: GE B.F.I: .88 Sensitivity: 21.1	1986	947		368	112	0.98	2.6	18/12	0.11	17/10	2.1	0.93	0.14
Comment: Flat V weir (1:10 cross-slope, 4.5m broad). Auxiliary downstream water level recorder. Full range station. Predominantly natural catchment; some diminution of flow due to groundwater abstractions. # Pervious (Oolitic Limestone) catchment on the dip-slope of the Cotswolds. Primarily rural, low population density, some scattered woodland.	1987	799		276	84	0.74	2.5	10/04	0.08	03/10	1.6	0.74	0.10
	1988	794		259	79	0.69	**3.4**	**07/02**	0.06	14/09	2.0	0.21	0.09
	1989	857		173	53	0.46	1.8	30/12	**0.04**	**15/10**	1.4	0.20	0.05
	1990	708		214	65	0.57	2.9	18/02	**0.00**	**15/10**	2.1	0.10	0.01
039074 Ampney Brook at Sheepen Bridge C.A: 74.4 km²	1980			339		0.80	7.6	01/05 1983	0.00	09/10 1984	2.0	0.58	
M.A: NRA-T Level: 78m Local Number: 490													
F.A.R: P B.F.I: .73 Sensitivity: 60.0	1986	826		363	107	0.86	4.4	23/11	0.04	09/10	2.1	0.69	0.06
Comment: Flat V weir (1:10 cross-slope, 4.5m broad). Commonly drowned. * Calibration under review - gaugings indicate that the drowned flow reduction factor (based on tailwater levels) over-compensates for non-modularity *. Limited head at low flows therefore insensitive. Some bypassing at highest flows. Small diminution of flow due to abstraction, otherwise a naturally responding catchment. # The Ampney Brook rises in the pervious Great Oolite series but the lower catchment is principally Oxford Clay. A rural catchment.	1987	731		299	88	0.70	8.1	04/04	0.00	01/10	1.6	0.68	0.02
	1988	731		283	83	0.66	5.8	04/02	0.05	30/08	2.0	0.38	0.06
	1989	766		241	71	0.57	3.7	24/12	0.00	03/08	1.5	0.34	
	1990	618		178	53	0.42	4.4	08/02	0.00	10/07	1.3	0.02	
039076 Windrush at Worsham C.A: 296.0 km²	**42..85**			**244**		**2.29**	**18.9**	**28/12 1979**	**0.27**	**12/08 1944**	**5.2**	**2.38**	**0.72**
M.A: NRA-T Level: m Local Number: 1080													
F.A.R: PN B.F.I: .84 Sensitivity: 13.5	1986	828		314	129	2.95	10.3	16/12	0.80	17/10	5.5	2.68	0.94
Comment: Twin, adjustable radial gate (sharp-crested) weirs. Calibration allows for nine separate gate settings. Drowning is very rare. Some early (from 1942) data held by NRA-T for the original rhymer weir. Negligible disturbance to the natural flow regime. # A pervious (Oolitic Limestone) catchment on the dip-slope of the Cotswolds. Predominantly rural - Witney is the largest settlement.	1987	716		263	108	2.47	9.6	19/11	0.65	01/10	4.4	2.38	0.76
	1988	695		251	103	2.35	10.9	02/02	0.74	02/10	5.2	1.37	0.78
	1989	752		202	83	1.90	12.0	19/12	0.40	14/10	4.1	1.10	0.49
	1990	596		249	102	2.34	18.7	08/02	0.42	09/09	5.4	0.92	0.45
039077 Og at Marlborough Poulton Fm C.A: 59.2 km²	**80-85**			**176**		**0.33**	**1.2**	**06/02 1984**	**0.01**	**01/11 1984**	**0.7**	**0.25**	**0.03**
M.A: NRA-T Level: 125m Local Number: 2219													
F.A.R: G B.F.I: .97 Sensitivity: 30.0	1986	864		184	105	0.35	0.8	13/02	0.04	06/11	0.7	0.38	0.05
Comment: Flat V weir (width: 3.0m) with auxiliary downstream recorder - seasonal weed growth causes drowning. Groundwater abstraction in the headwaters otherwise flow regime is natural and dominated by baseflow. # The Og is a Chalk stream draining from the Marlborough Downs. A rural catchment with very low population density.	1987	744		169	96	0.32	0.7	27/02	0.04	25/10	0.6	0.26	0.04
	1988	742		173	98	0.32	1.3	09/02	0.03	20/10	0.9	0.19	0.03
	1989	721		81	46	0.15	0.5	11/04	0.00	05/12	0.4	0.09	0.01
	1990	621		147	84	0.28	1.6	14/02	0.00	13/12	0.9	0.09	
039078 Wey(north) at Farnham C.A: 191.1 km²	**78-85**			**114**		**0.69**	**11.6**	**28/12 1979**	**0.12**	**28/08 1984**	**1.3**	**0.53**	**0.18**
M.A: NRA-T Level: 64m Local Number: 3020													
F.A.R: GE B.F.I: .71 Sensitivity: 38.9	1986	948		112	98	0.68	8.7	03/01	0.14	05/10	1.3	0.59	0.16
Comment: Crump weir (width: 9.14m) with thin-plate along the crest line. Calibration is theoretically based - a few confirmatory gaugings. Modular. Possible high flow bypassing via culvert immediately u/s. Baseflows considerably diminished by groundwater abstractions in the headwaters. # A mainly Chalk catchment with Gault Clay in the lower reaches. Predominantly rural, some urban development on the watershed.	1987	857		108	95	0.65	8.2	11/11	0.13	16/08	1.1	0.56	0.17
	1988	777		104	91	0.63	5.9	29/01	0.13	26/09	1.4	0.37	0.15
	1989	796											
	1990	757		144	126	0.87	**22.6**	**03/02**	0.18	18/11	1.9	0.42	0.19
039079 Wey at Weybridge C.A: 1008.0 km²	79..85			233		7.43	69.2d	29/12 1979			11.4	4.95	2.25
M.A: NRA-T Level: 9m Local Number: 3090													
F.A.R: B.F.I: .64 Sensitivity:	1986	847											
Comment: Ultrasonic gauging station, single-path (Harwell design). Weed-growth and velocity distribution can cause problems but this site does monitor the complete Wey system; confluence with canal is just u/s. Upstream storage produces some flood attenuation. # Mixed geology: largely permeable upper catchment (Chalk and Upper Greensand of the North Downs); impermeable Tertiary formations dominate the lower catchment. Diverse land use - rural tracts with mixed woodland; considerable suburban development below the headwaters.	1987	802		230	99	7.36	45.7	11/10	1.67	14/07	13.2	5.78	2.18
	1988	698		218	94	6.94	45.2	30/01	2.49	09/08	12.5	4.33	3.10
	1989			163	70	5.21	43.6	21/12	1.82	21/07	9.6	3.59	2.28
	1990	666		195	84	6.25	62.1	04/02	1.30	12/08	11.8	3.69	1.93
039081 Ock at Allott Gardens C.A: 234.0 km²	**62..85**	*660*		**207**		**1.54**	**15.8**	**06/03 1972**	**0.11**	**23/08 1976**	**3.4**	**0.85**	**0.33**
M.A: NRA-T Level: 51m Local Number: 1790													
F.A.R: GE B.F.I: .62 Sensitivity: 20.3	1986	714	108	239	115	1.77	9.5	02/01	0.43	17/10	3.9	1.30	0.46
Comment: Crump weir 7.79m wide (auxiliary d/s tapping) superseded original compound structure in 1979. Weir drowns during floods - overspill can occur into Sandford Brook - more common pre-1979; no flow adjustment made. Substantial channel improvements. Runoff augmented by sewage effluent (derived from outside catchment). Contributing area exceeds topographical catchment. # Flat, rural valley in Vale of The White Horse. Mixed geology - 50% pervious; Chalk downland forms southern watershed, remainder mostly Tertiary clays.	1987	641	97	207	100	1.54	12.0	04/04	0.39	01/10	2.8	1.16	0.43
	1988	639	97	223	108	1.65	12.3	02/02	0.42	10/09	3.5	0.84	0.46
	1989	594	90	158	76	1.17	9.7	27/02	0.28	09/09	2.6	0.67	0.30
	1990	469	71	160	77	1.18	10.8	04/02	0.21	15/09	2.7	0.47	0.26

	Period	Rainfall (mm)	% of pre1986	Runoff (mm)	% of pre1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
039086 Gatwick Stream at Gatwick Link C.A: 33.6 km²	**75-85**	*848*		**628**		**0.67**	**25.9**	**12/11 1976**	**0.11**	**15/08 1976**	**1.3**	**0.48**	**0.21**
M.A: NRA-T Level: 55m Local Number: 3229													
F.A.R: E B.F.I: .61 Sensitivity: 20.0	1986	867	102	694	111	0.74	12.0	20/11	0.25	02/08	1.4	0.57	0.27
Comment: Crump weir (4.6m broad) with crest tapping; located at the end of a culvert. Superseded earlier velocity-area station (u/s). Modular apart from exceptional discharges. Flow pattern affected by sewage effluent and urban runoff; large net import to the catchment. # Mixed geology but mainly impervious (Weald Clay). Mixed land use with significant urban and forested areas.	1987	867	102	742	118	0.79	24.1	15/10	0.30	29/09	1.3	0.53	0.32
	1988	761	90	653	104	0.69	18.5	27/01	0.25	17/09	1.2	0.40	0.30
	1989	688	81	504	80	0.54	13.5	11/04	0.23	23/08	1.0	0.36	0.25
	1990	763	90	586	93	0.62	10.3	03/02	0.26	26/08	1.1	0.37	0.27
039087 Ray at Water Eaton C.A: 84.1 km²	**74-85**	*717*		**484**		**1.29**	**32.2**	**27/09 1974**	**0.26**	**28/08 1976**	**2.4**	**0.82**	**0.42**
M.A: NRA-T Level: 76m Local Number: 390													
F.A.R: GE B.F.I: .58 Sensitivity: 14.0	1986			544	112	1.45	12.9	20/11	0.47	04/10	2.8	0.97	0.52
Comment: Multi-path ultrasonic superseded (in 1989) a Crump weir (width: 5.195m) with crest and downstream recorders; backwater from the Thames caused frequent drowning; high submergence ratios - flood data is of limited precision. Flows heavily influenced by Swindon runoff (sewage effluent, balancing ponds etc.); net import of water. # The Ray rises in the Marlborough Downs and drains a relatively flat, mainly impervious, catchment. Largely agricultural land use but important sub-catchment contrasts - urbanisation in the headwaters.	1987	680	95	469	97	1.25	11.2	19/11	0.46	30/08	2.2	0.92	0.50
	1988	688	96	474	98	1.26	10.0	03/01	0.50	19/09	2.5	0.83	0.55
	1989	686	96	451	93	1.20	15.4	21/12	0.39	10/12	2.4	0.71	0.44
	1990	550	77	409	85	1.09	18.8	03/02	0.37	15/08	1.9	0.58	0.41
039088 Chess at Rickmansworth C.A: 105.0 km²	**74-85**	*778*		**183**		**0.61**	**1.6**	**11/02 1985**	**0.05**	**28/08 1976**	**0.9**	**0.61**	**0.21**
M.A: NRA-T Level: 47m Local Number: 2859													
F.A.R: PGE B.F.I: .94 Sensitivity: 22.3	1986	815	105	175	96	0.58	1.1	20/05	0.38	06/11	0.7	0.59	0.41
Comment: Crump weir (6.0m broad) with auxiliary downstream recorder. Full range station. The baseflow dominated flow regime is influenced by sewage effluent and groundwater abstractions; significant net export from the catchment. # The Chess is a Chalk stream draining the dip-slope of the Chilterns. Headwaters are rural; significant urban growth in the lower valley.	1987	805	103	191	104	0.64	1.4	12/01	0.43	27/09	0.8	0.63	0.46
	1988	723	93	245	134	0.81	**1.8**	**08/05**	0.35	28/11	1.2	0.77	0.40
	1989	677	87	121	66	0.40	1.0	20/12	0.24	18/11	0.6	0.40	0.26
	1990	576	74	158	86	0.53	1.3	02/04	0.27	23/12	0.8	0.46	0.29
039089 Gade at Bury Mill C.A: 48.2 km²	**75-85**			**103**		**0.16**	**1.2**	**05/07 1983**	**0.01**	**24/10 1976**	**0.3**	**0.14**	**0.03**
M.A: NRA-T Level: m Local Number: 2841													
F.A.R: B.F.I: .92 Sensitivity: 23.3	1986												
Comment: Rectangular flume with side contractions. Installed by Hemel Hempstead Development Corporation. Responsive regime. Balancing pond upstream. Leak in stilling well discovered in 1990. # Dip-slope stream draining the Chilterns - atypical regime due to Tertiary and Clay-with-Flints overburden. A mainly rural catchment draining to Hemel Hempstead.	1987			113	110	0.17	0.8	20/10	0.08	26/09	0.3	0.16	0.10
	1988			178	173	0.27	1.0	29/01	0.10	29/12	0.5	0.24	0.11
	1989	665		60	58	0.09	0.3	28/03	0.05	29/10	0.1	0.10	0.05
	1990	571		76	74	0.12	0.5	03/02	0.04	18/11	0.2	0.09	0.04
039090 Cole at Inglesham C.A: 140.0 km²	**76-85**			**275**		**1.22**	**26.3**	**28/12 1979**	**0.05**	**13/10 1976**	**2.7**	**0.75**	**0.18**
M.A: NRA-T Level: 73m Local Number: 790													
F.A.R: G B.F.I: .55 Sensitivity:	1986			308	112	1.37	10.7	15/12	0.20	16/10	3.3	0.92	0.23
Comment: Compound Crump Weir (high central crest). Channel divides immediately below weir; part only of the structure is subject to non-modular conditions (this can cause significant data processing problems). # Chalk scarp headwaters but catchment is largely low-lying and impervious (clay). A mainly rural catchment, some urban growth below the headwaters.	1987	671		265	96	1.18	13.9	27/03	0.15	01/10	2.3	0.84	0.20
	1988	666		263	96	1.16	13.1	01/02	0.18	17/08	2.8	0.52	0.22
	1989	644		201	73	0.89	14.5	21/12	0.11	03/09	2.2	0.41	0.13
	1990	508		206	75	0.92	20.2	04/02	0.09	15/09	2.1	0.28	0.10
039092 Dollis Brook at Hendon Lane Bridge C.A: 25.1 km²	**79..85**			**293**		**0.23**	**12.6**	**30/05 1979**	**0.00**	**06/10 1983**	**0.5**	**0.09**	**0.03**
M.A: NRA-T Level: 47m Local Number: 3809													
F.A.R: B.F.I: .29 Sensitivity:	1986	805		326	111	0.26	5.3	25/08	0.03	25/06	0.7	0.13	0.04
Comment: Compound broad-crested weir with rectangular thin-plate inset. Plate is damaged and upstream accretion is severe - influences stage measurement as well as weir performance. Opening of sluice hatches results in occasional bypassing. Always modular and potentially a worthwhile station. # Catchment in north-western suburbs of London: Barnet and Hendon but with rural headwaters in the west. Geology is entirely London Clay of Eocene age. Drift free.	1987	771		360	123	0.29	11.0	11/11	0.03	16/08	0.6	0.12	0.05
	1988	707		374	128	0.30	8.1	08/05	0.04	26/06	0.7	0.13	0.06
	1989	651		251	86	0.20	**15.7**	**20/12**	0.00	05/08	0.4	0.09	>0.00
	1990	558											
039093 Brent at Monks Park C.A: 117.6 km²	78..85			273		1.02	39.0	05/10 1984	0.06	29/09 1979	2.3	0.55	0.12
M.A: NRA-T Level: 25 m Local Number: 3850													
F.A.R: B.F.I: .18 Sensitivity: 29.2	1986	785		293	107	1.09	25.5	02/01	0.08	26/02	2.7	0.57	0.10
Comment: Critical depth flume (rectangular) in a concrete channel, downstream of Brent Reservoir. # A largely urban/suburban catchment in north-west London.	1987	751		302	111	1.13	45.1	20/10	0.09	12/12	2.4	0.53	0.12
	1988	685		276	101	1.03	65.1	08/05	0.11	14/11	2.4	0.44	0.14
	1989	620		235	86	0.88	33.5	20/12	0.13	17/08	2.0	0.35	0.16
	1990	546		197	72	0.74	31.2	03/02	0.12	25/05	1.7	0.28	0.15
039094 Crane at Marsh Farm C.A: 81.0 km²	**77-85**			**202**		**0.52**	**13.4**	**28/12 1979**	**0.00**	**26/12 1982**	**1.2**	**0.31**	**0.02**
M.A: NRA-T Level: 7m Local Number: 3680													
F.A.R: G B.F.I: .33 Sensitivity: 174.0	1986	688		278	138	0.71	10.6	03/01	0.08	07/09	1.5	0.49	0.22
Comment: Rectangular critical depth flume (insensitive) in a straight concrete channel. Theoretical rating; modular limit to be determined. Capacity approx. 30 m^3s^{-1}; yet to be exceeded. Substantial artificial influence on flow pattern: automatic weir u/s diverts flow into the Duke's River, considerable area of gravel workings; some runoff gain from the Colne catchment. # Very flat catchment - drainage network difficult to delineate in parts. Mainly urban; catchment contains Heathrow Airport and several pumped storage res. (abstracting from Thames).	1987	691		260	129	0.67	11.6	21/10	0.02	21/02	1.4	0.38	0.06
	1988	621		244	121	0.63	12.0	09/05	0.03	31/12	1.3	0.33	0.08
	1989	578		151	75	0.39	8.3	20/12	0.02	03/07	0.9	0.18	0.04
	1990	478		139	69	0.36	11.6	03/02	0.02	04/12	0.8	0.18	0.02
039095 Quaggy at Manor House Gardens C.A: 33.5 km²	**78..85**					**0.16**	**5.9**	**05/01 1982**	**0.02**	**08/09 1984**	**0.3**	**0.11**	**0.03**
M.A: NRA-T Level: 13m Local Number: 4389													
F.A.R: B.F.I: .49 Sensitivity: 40.8	1986					0.16	5.1	03/08	0.04	01/07	0.3	0.11	0.05
Comment: A critical depth flume (width: 4m, wingwall height: 2m) in a concrete channel. The flume was constructed in 1961 and calibrated theoretically - the low flow rating has since been revised on the basis of current meter gauging results. Modular range uncertain. The structure was overwhelmed by the 1968 flood but sensibly full range otherwise. # The catchment is a mixture of urban and suburban development.	1987					0.19	4.9	13/06	0.05	26/09	0.4	0.12	0.05
	1988					0.17	4.4	27/01	0.04	26/08	0.4	0.09	0.05
	1989					0.13	**6.1**	**13/08**	0.03	24/09	0.3	0.07	0.03
	1990	53[illegible]				0.13	5.3	03/02	0.03	09/09	0.3	0.06	0.03
039096 Wealdstone Brook at Wembley C.A: 21.7 km²	79..85			247		0.17	20.2	05/10 1984	0.00	04/04 1982	0.4	0.08	0.02
M.A: NRA-T Level: 29m Local Number: 3839													
F.A.R: B.F.I: .26 Sensitivity: 39.6	1986			290	117	0.20	12.1	21/05	0.01	20/06	0.6	0.09	0.02
Comment: Flat V profile weir in a culvert (below Olympic Way, Wembley). Following modifications to the structure in 1978 it was refurbished but the theoretical rating may no longer fully apply. Uncertain overall impact of artificial influences on responsive flow regime - but complex pattern of water utilisation. # A largely impervious urban/suburban catchment.	1987			224	91	0.15	17.7	20/10	0.01	12/07	0.3	0.04	0.02
	1988			215	87	0.15	27.5	08/05	0.02	16/08	0.3	0.04	0.02
	1989			176	71	0.12	13.7	08/07	0.02	23/08	0.3	0.04	0.02
	1990	52		155	63	0.11	13.0	03/02	0.02	05/08	0.2	0.03	0.02
039097 Thames at Buscot C.A: 997.0 km²	1980			314		9.92	57.7d	02/01 1982	0.94	02/09 1984	22.6	7.43	1.44
M.A: NRA-T Level: 70m Local Number: 900													
F.A.R: GE B.F.I: .72 Sensitivity:	1986	816		340	108	10.74	36.7d	20/11	1.70	17/10	23.4	8.41	1.85
Comment: A complex weir - radial gates and overfall weirs - embracing two channels. Two upstream and two downstream head recorders. Calibrated using current meter measurements. All but highest flows contained. Small net export of water (due to groundwater abstraction). # Mixed geology; runoff from the Cotswolds (Oolitic Limestone) provides a significant baseflow but the Oxford Clay valley is much more responsive. Land use is rural/agricultural with settlements concentrated in the valley where gravel extraction is significant.	1987	717		282	90	8.92	37.6d	12/11	1.24	02/10	18.9	7.63	1.64
	1988	715		290	92	9.14	52.2d	03/02	1.56	19/09	25.4	4.72	1.85
	1989	736		248	79	7.83	57.2d	22/12	0.83	09/08	20.2	4.07	0.92
	1990	586		246	78	7.79	73.2d	04/02	0.83	25/07	23.8	1.90	0.87

		Period	Rainfall (mm)	% of pre-1986	Runoff (mm)	% of pre-1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
039098	**Pinn at Uxbridge** C.A: 33.3 km²	84..85						6.9	22/11 1984	0.01	27/09 1985			
M.A: NRA-T	Level: 31m Local Number: 2889													
F.A.R: N	B.F.I: .18 Sensitivity:	1986	732											
Comment: Electromagnetic gauging station (overhead coil) in formalised trapezoidal section. Encouraging full-range performance, more gaugings required to confirm the high flow calibration. All but exceptional floods contained. Flashy - large flow (and velocity) range. Very limited impact of artificial influences on the flow pattern. # Surburban catchment to the west of London. Largely impermeable. Headwaters rise in countryside but substantial developement downstream - Pinner, Ruislip and Ickenham are all in the catchment.		1987	735		199		0.21		20/10	0.01E	08/07	0.4	0.07	0.01
		1988	684		182		0.19		08/05	0.01E	14/09	0.5	0.04	0.01
		1989	599		126		0.13	8.1	20/12	0.01E	22/06	0.3	0.03	
		1990	523		114		0.12					0.3	0.02	0.01
039099	**Ampney Brook at Ampney St. Peter** C.A: 45.3 km²	83-85			407		0.58	3.1	27/11 1984	0.00	17/09 1984	1.4	0.46	0.01
M.A: NRA-T	Level: 95m Local Number: 470													
F.A.R:	B.F.I: .77 Sensitivity: 40.0	1986	856		469	115	0.67	2.8	23/11	0.06	17/10	1.7	0.56	0.09
Comment: Flat V weir, 1:10 cross-slope. Theoretical calibration confirmed by gaugings. Drowning unlikely (but d/s stilling well installed). Full range. Primarily a natural catchment but very high runoff suggests that the contributing area exceeds the topographical catchment. Station is located just d/s of a fish farm. # A rural catchment developed principally on the pervious Great Oolite of the Cotswolds; the Ampney Brook is a dip-slope stream.		1987	754		386	95	0.55	2.4	20/11	0.02	06/10	1.2	0.58	0.04
		1988	758		363	89	0.52	2.6	03/02	0.06	24/06	1.4	0.35	0.07
		1989	797		313	77	0.45	3.6	24/12	0.00	29/09	1.1	0.26	
		1990	643		261	64	0.37	3.4	07/02	0.00	02/08	1.1	0.05	
039100	**Swill Brook at Oakley** C.A: 53.3 km²	84..85						7.9	22/11 1984	0.00	16/10 1984			
M.A: NRA-T	Level: 88m Local Number: 155													
F.A.R:	B.F.I: .34 Sensitivity:	1986			224		0.38					1.2	0.13	0.01
Comment: Electromagnetic gauging station with overhead coil. More gaugings required to confirm rating. Natural, and responsive, flow regime but runoff may be influenced by groundwater pumping from the confined Oolite aquifer. Large range of velocities - monitoring of the lowest flow rates is suspect. # Relatively flat, rural catchment given over to agriculture. Primarily impervious (Oxford Clay).		1987													
		1988												
		1989			145		0.25	3.0	26/02	0.00	03/01	0.8	0.01	
		1990			125		0.21	2.7	07/02	0.00	13/05	0.7		
039101	**Aldbourne at Ramsbury** C.A: 53.1 km²	82-85			133		0.22	1.2	26/03 1982	0.04	19/11 1984	0.5	0.14	0.04
M.A: NRA-T	Level: 106m Local Number: 2229													
F.A.R: N	B.F.I: .97 Sensitivity: 40.5	1986	861		145	109	0.24	0.7	17/02	0.05	29/10	0.5	0.22	0.06
Comment: Two Flat V weirs - 1:10 cross-slopes (one is located on a bypass stream). Theoretical calibration. All flows contained. Sensibly natural flow regime. Contributing area exceeds topographical catchment. # The Aldbourne drains a Chalk downland catchment. Land use is predominately agricultural - Aldbourne is the only significant settlement.		1987	743		145	109	0.24	0.6	29/04	0.05	05/11	0.5	0.17	0.06
		1988	756		155	117	0.26	1.1	13/02	0.04	24/11	0.8	0.12	0.05
		1989	701		57	43	0.10	0.4	11/04	0.02	02/12	0.2	0.06	0.03
		1990	630		108	81	0.18	1.0	25/02	0.01	23/12	0.7	0.06	0.02
039102	**Misbourne at Denham Lodge** C.A: 136.0 km²	84..85			57		0.24	0.9	18/04 1985	0.12	06/11 1985			
M.A: NRA-T	Level: 35m Local Number: 2879													
F.A.R: GE	B.F.I: .88 Sensitivity: 17.4	1986	807		65	114	0.28	0.8	20/04	0.15	09/10	0.4	0.28	0.19
Comment: Crump weir (crest: 3.5m wide) plus Flat V (width: 2.0m, 1:10 cross-slope) on small distributary. High flow range under review but drowning rare. Bypassed only in exceptional floods. Baseflow dominated chalk stream, influent near the Chalfonts. Historical PWS abstractions caused diminution in flows; counteracted by ALF scheme from 1992. Groundwater catchment: 81 sq. km. # Elongated dip-slope catchment in the Chilterns. Urban growth in valley but catchment is mostly Green Belt - agriculture with scattered tracts of woodland.		1987	791		68	119	0.29	1.7	20/10	0.14	29/09	0.4	0.27	0.17
		1988	723		100	175	0.43	2.6	08/05	0.17	28/12	0.7	0.38	0.18
		1989	672		38	67	0.16	0.8	20/12	0.05	17/10	0.3	0.15	0.08
		1990	569		37	65	0.16	1.0	02/02	0.06	25/10	0.3	0.16	0.07

Summary of Archived Data – 1

Gauged daily flows, monthly peaks and monthly rainfall

Stn. number	Gauged daily flows, monthly peaks and rainfall			
037001	50s	eAAAAAAAAA	60s	AAAAAAAAAA
	70s	AAAAAAAAAA	80s	AAAAAAAAAA
	90s	AAe		
037014	60s	---eBAAAAA	70s	AAAAAAAAAA
	80s	AAAAAAAAAA	90s	AAe
037015	60s	-f----eee	70s	eaaaeeee†E
	80s	EEAAAAAAAA	90s	AAe
037018	70s	EAAAAAAAAA	80s	AAAAABAAAA
	90s	AAe		
037019	60s	-----EAAAA	70s	AAAAAAAEEA
	80s	AAAAAAAAAA	90s	AAe
037023	70s	-EAAAAAAAA	80s	AAE†††††††
	90s	††		
038001	70s	--------f	80s	ccccfccccf
	90s	ccccccfccc	00s	ccccfcccccc
	10s	cccccccccc	20s	cccccccccc
	30s	ccctfccCCC	40s	FCFCCCCCCC
	50s	CCCCCCCFCC	60s	CCCCCAAAAA
	70s	AAAAAAF†EA	80s	AAAAAAAAAA
	90s	AAe		
038002	80s	eaaaaaAAAA	90s	AAe
038003	50s	--eAAAAAAA	60s	AAAAAAAAAA
	70s	AAAAAAAAAA	80s	AAAAAAAAAA
	90s	AAe		
038004	70s	--------e	80s	AAAAAAAAAA
	90s	AAe		
038005	30s	----††††	40s	††††††††††
	50s	†††††----	60s	EAAAABABAA
	70s	AAAAAAAAAE	80s	EE††††
038006	50s	-----fCCC	60s	CBAAAAAABA
	70s	AAAABAAAAA	80s	EEE
038007	60s	-----EAAAA	70s	AAAAAAAAAA
	80s	AAAAAAAAAA	90s	AAe
038011	50s	-------fCC	60s	CCCCCBBBBB
	70s	BABBBBBAAA	80s	AAAAE†
038012	50s	--------††	60s	††††††††††
	70s	††††EAAAAA	80s	AAAAAAAAAA
	90s	AAe		
038013	30s	-----†††††	40s	††††††††††
	50s	††††-----	60s	eaabbbaaaa
	70s	aaaaaabaaa	80s	AAAAABAAAA
	90s	BAe		

Stn. number	Gauged daily flows, monthly peaks and rainfall			
038014	50s	------eAAA	60s	AAAAAAAAAA
	70s	AAAAAAAAAA	80s	EAAAAAAAAA
	90s	AAe		
038015	60s	--------E	70s	AAAABAAAAA
	80s	A†e		
038016	60s	--------f	70s	CCBBBCCCBA
	80s	AABCCCccba	90s	aae
038017	70s	eBAAAAAAAA	80s	AAAAAAaaaa
	90s	aae		
038018	70s	-eAAAAAAAA	80s	AAAAAAAAAA
	90s	AAe		
038019	70s	-eBAE†E†††	80s	††
038020	70s	-EAAAAAAAA	80s	AAEEAAAAAA
	90s	AAe		
038021	70s	-eAAAAAAAA	80s	AAAAAAAAAA
	90s	AAe		
038022	50s	----ebbaaa	60s	aaaaaaaaaa
	70s	abbBAAAAAA	80s	AAAAAAAAAA
	90s	AAe		
038024	70s	---EAAAAAA	80s	AAAAAAAAAA
	90s	AAe		
038025	50s	----ebbbbb	60s	baabaaaaab
	70s	aaeff		
038026	70s	----EAAAAA	80s	AAAAAAAAAA
	90s	AAe		
038027	80s	-----edaae	90s	aae
038028	70s	-----eEAA	80s	AAAAAAAAAA
	90s	AAe		
038029	70s	--------eA	80s	AAAAABAAAA
	90s	AAe		
038030	70s	---------e	80s	AAAAAAAAAA
	90s	AAe		
039001	80s	---cCCCCCC	90s	CCCCCCCCCC
	00s	CCCCCCCCCC	10s	CCCCCCCCCC
	20s	CCCCCCCCCC	30s	CCCCCCCCCC
	40s	CCCCCCCCCC	50s	CCCCCCCCCC
	60s	CCCCCCCCCC	70s	CCCCCBAAAA
	80s	BBAAAAAAAA	90s	AAe

Stn. number	Gauged daily flows, monthly peaks and rainfall			
039002	30s	--------fC	40s	CCCCCCCCCC
	50s	CCCCCCCCCC	60s	CCCCCCCCCC
	70s	CCCCCCCCCC	80s	CCCCCCCCCC
	90s	CCe		
039003	60s	--eAAEEEEE	70s	eEEAEEEEDA
	80s	AAAAAAAAAA	90s	AAe
039004	30s	------eEEA	40s	AAE††EEEE†
	50s	††††EAAAAA	60s	AAAAEAEEEE
	70s	†EEAEEAF†E	80s	EEEEAAAAAA
	90s	AEe		
039005	30s	------eAAE†	40s	††††††††††
	50s	††††EEAAAA	60s	EEAEEEEEEE
	70s	EEEAEEEEEA	80s	AEEBBAAAAA
	90s	AAe		
039006	50s	eAAAAAAAAA	60s	AAAAAAAAAA
	70s	AAAAAAAAAA	80s	AAAAAAAAAA
	90s	AAe		
039007	50s	--eAAAAAAA	60s	AAAAAAAAAA
	70s	AAAAAAAAAA	80s	AAAAAAAAAA
	90s	AAe		
039008	50s	-fCCCCCCCC	60s	CCCCCCCCCC
	70s	CCCCCCCCCC	80s	CCCCCCCCCC
	90s	CCe		
039009	50s	--------f	60s	CCCCCBAAAB
	70s	CCCCCCCCCC	80s	CCF
039010	50s	--eAAAAAAA	60s	AAAAAAAAAA
	70s	AAAAAAAAAA	80s	AAAAAAaAAA
	90s	AEe		
039011	50s	----eAAAAA	60s	AAAAAAAAAA
	70s	AAAAAAAAAA	80s	AAAAAAAAAA
	90s	AAe		
039012	50s	------EAAA	60s	AAAAAAAAAA
	70s	AAAAAAAAAA	80s	AAEEEAAEAA
	90s	AAe		
039013	30s	----eAAAAA	40s	AAAAAAAAAA
	50s	AAAAAAAAAA	60s	AAAAAAAAAA
	70s	AAAAAAAAEA	80s	AAAAAAaAAA
	90s	EEe		
039014	50s	------eAAA	60s	AAAAAAAAAA
	70s	AAAAAAAAAA	80s	AAAAAAAAAA
	90s	AAe		

Summary of Archived Data

Gauged daily flows, monthly peaks and monthly rainfall

Stn. number	Gauged daily flows, monthly peaks and rainfall			
039015	10s tccccccccc	20s	ccccccccc	
	30s ccccccccc	40s	ccccccccc	
	50s ccccccccc	60s	cccbAAAAAA	
	70s AAAAAAABCB	80s	AAAAAAAAAA	
	90s AAe			
039016	60s -eAAAAAAAA	70s	AAAAAAAAAA	
	80s AAAAAAAAAA	90s	AAe	
039017	60s –eAAAAAAA	70s	AAAAAAAAAA	
	80s ABEAAE†EEE	90s	EDe	
039019	60s -EAAAAAAA	70s	AAAAAAAAAA	
	80s AAAAAAAAAA	90s	AAe	
039020	60s —eAAAAAA	70s	AAAAAAAAAA	
	80s AAAAAAAAAA	90s	AAe	
039021	60s —EAAAA	70s	AAAAAAAAAA	
	80s AAAAAAAAAA	90s	ABe	
039022	60s —eAAAA	70s	AAAAAAAAAA	
	80s AAAAAAAAAA	90s	AAe	
039023	60s —eAAAAA	70s	AAAAAAAAAA	
	80s AAAAAAAAAA	90s	AAe	
039024	50s –eaaabAAA	60s	AAABAAAAAA	
	70s AAAAAAAA††	80s	†††–††††	
	90s ††			
039025	60s ——eAA	70s	AAAAAAAAAA	
	80s AAAAAAAAA	90s	AAe	
039026	60s —eAAA	70s	AAAAAAAAAA	
	80s AAAAAAAEEA	90s	AAe	
039027	60s -------eA	70s	AAAAAAAAAA	
	80s AAAAAAAAAA	90s	AAe	
039028	60s -------EA	70s	AAAAAAAAAA	
	80s AAAAAAAAAA	90s	AAe	
039029	60s ——†EA	70s	AAAAAAAAAA	
	80s AAAAAAAAAA	90s	AAe	
039030	70s EAAAAAAAAA	80s	AAAAAAAAAA	
	90s AAe			
039031	60s --eAAAAAAA	70s	AAAAAAAAAA	
	80s AAAE††††††	90s	††	
039032	60s ------eAAA	70s	AAAAAAAAAA	
	80s AAAE††††††	90s	††	
039033	60s --eAAAAAAA	70s	AAAAAAAAAA	
	80s AAAAAAAAAA	90s	AAe	
039034	70s eAAAAAAAAA	80s	AAAAAAAAAA	
	90s AAe			
039035	60s -------†E	70s	AAAAAAAAAA	
	80s AAAAAAAAAA	90s	AAe	
039036	60s -------eA	70s	AAAAAAAAAA	
	80s AAAAAEDAAA	90s	AAe	

Stn. number	Gauged daily flows, monthly peaks and rainfall			
039037	70s -†EAAAAAAA	80s	AAAAAAAAAA	
	90s AAe			
039038	60s -------eA	70s	AAAAAAAAAA	
	80s AAEEBEEDAA	90s	AAe	
039040	70s -†EAAAAAAA	80s	AAAAAAAAAA	
	90s AAe			
039042	70s --EAAAAAAA	80s	AAAAAAAAAA	
	90s AAe			
039043	60s --eEAAAAAA	70s	AAAAAAAAAA	
	80s AAAAAAAAAA	90s	AAe	
039044	70s –eAAAAAAA	80s	AAAAaaAAAA	
	90s AAe			
039046	70s —eAEEEEA	80s	E†††EDddaD	
	90s DAe			
039049	70s --EEE†††E	80s	DAABEAAAAA	
	90s AAe			
039051	60s ------EAA	70s	AAAAAAAAAA	
	80s AAEAAAAAE†	90s	††	
039052	50s ------eAA	60s	EdAAAAAAAA	
	70s aaaaaaaaaa	80s	AAAAAAAAAA	
	90s AAe			
039053	60s -eAAAAAAAA	70s	AAAAAAAAAA	
	80s AAAAAAAAAA	90s	AAe	
039054	60s -eAAAAAAAA	70s	AAAAAAAAAA	
	80s AAAAAAAAAA	90s	AAe	
039055	70s ———e	80s	EEEAAAAAAA	
	90s AAe			
039056	70s -------eae	80s	aeaaaaaaaA	
	90s AAe			
039057	70s -------ea	80s	daaaeaAAAA	
	90s AAe			
039058	70s -------ea	80s	daeaaaAAAA	
	90s AAe			
039061	70s -eaaaaaaaa	80s	aeceadDEBB	
	90s CEe			
039065	70s eaaaaae---	80s	ebeebbAABB	
	90s CBe			
039068	70s -eAAAAE†EA	80s	AAAAAAAAAA	
	90s AAe			
039069	70s --eAE†EAAA	80s	AAAAAAAAAA	
	90s AAe			
039073	70s --------e	80s	aaaaaaAAAA	
	90s AAe			
039074	80s aaaaaaAAAA	90s	BAe	
039075	80s eaaaaaADDD	90s	EDe	

Stn. number	Gauged daily flows, monthly peaks and rainfall			
039076	40s -ttttttttt	50s	ttttttttt	
	60s ttttttt–	70s	------eeaa	
	80s aaaeaaAAAA	90s	AEe	
039077	80s eaaaaaAAAA	90s	AAe	
039078	70s -------ea	80s	aaaaaaAAAE	
	90s AAe			
039079	70s ---------f	80s	ffededDAAa	
	90s AEe			
039081	60s –eAAAAAAA	70s	AAAAAAAAEe	
	80s AAAaaaAAAA	90s	AAe	
039084	80s ———a	90s	aae	
039085	30s ——eaea	40s	aae——	
	50s —eaAAAA	60s	e	
039086	70s —eAAAA	80s	AAAaAAAAAA	
	90s AAe			
039087	70s —eAAAAA	80s	aAAAAAaAAA	
	90s AAe			
039088	70s —eAaAAA	80s	AAAAABAAAA	
	90s AAe			
039089	70s ——eaaaa	80s	aaaaaadaaA	
	90s AAe			
039090	70s ——eaaa	80s	aaaaaaaAAA	
	90s AAe			
039091	70s ---------ee	80s	aaaaae††††	
	90s ††			
039092	70s ---------e	80s	aaeaeaAAAA	
	90s EAe			
039093	70s ---------ee	80s	aeeeeaAAAA	
	90s AAe			
039094	70s -------tea	80s	baaaeaAAAA	
	90s AAe			
039095	70s ---------ea	80s	daeeaaaaaa	
	90s AAe			
039096	70s ———e	80s	aeeaeaaaaa	
	90s AAe			
039097	80s fcccccCCCC	90s	CC!	
039098	80s ---edDAAA	90s	DAe	
039099	80s ---eaaAAAA	90s	AAe	
039100	80s ---eeddea	90s	bde	
039101	80s –eaaaAAAA	90s	AAe	
039102	80s ----edAAAA	90s	AAe	

Summary of Archived Data – 2

Naturalised daily and monthly flows

Stn. number	Naturalised daily, and monthly flows			
037001	50s CAAAAAAAAA	60s	AAAAAAAAC-	
	70s -CAAC			
037014	60s ---CAAAAAA	70s	AAAAAC	
037018	70s CAAAC			
037019	60s -----CAAAC	70s	AAAAC	
037022	70s CAAAAAC			
038001	80s ---DAAAAAA	90s	AAAAAAAAAA	
	00s AAAAAAAAAA	10s	AAAAAAAAAA	
	20s AAAAAAAAAA	30s	AAAAAAAAAA	
	40s AAAAAAAAAA	50s	AAAAAAABAA	
	60s AAAAAAAAAA	70s	AAAAAAC-CA	
	80s AAAAAAAAAA	90s	AABF	

Stn. number	Naturalised daily, and monthly flows			
039001	80s ---AAAAAAA	90s	AAAAAAAAAA	
	00s AAAAAAAAAA	10s	AAAAAAAAAA	
	20s AAAAAAAAAA	30s	AAAAAAAAAA	
	40s AAAAAAAAAA	50s	AAAAAAAAAA	
	60s AAAAAAAAAA	70s	AAAAAAAAAA	
	80s AAAAAAAAAA	90s	AABF	
039002	30s -------CA	40s	AAAAAAAAAA	
	50s AAAAAAAAAA	60s	AAAAAAAAAA	
	70s AAAAAAAAAA	80s	AAAAAAAAAA	
	90s AAD			
039008	50s -CAAAAAAAA	60s	AAAAAAAAAA	
	70s AAAAAAAAAA	80s	AAAAAAAAAA	
	90s AAD			

Stn. number	Naturalised daily, and monthly flows			
039015	60s ---FBC			
039046	70s ---DADDDDA	80s	D---DDDDDD	
	90s DAD			

Gauged daily flows, monthly peaks and monthly rainfall

KEY:

	Complete rainfall	Incomplete or missing rainfall
Complete daily and complete peaks	A	a
Complete daily and partial peaks	B	b
Complete daily and no peaks	C	c
Partial daily and complete peaks	D	d
Partial daily and partial peaks	E	e
Partial daily and no peaks	F	f
No flow data	†	-

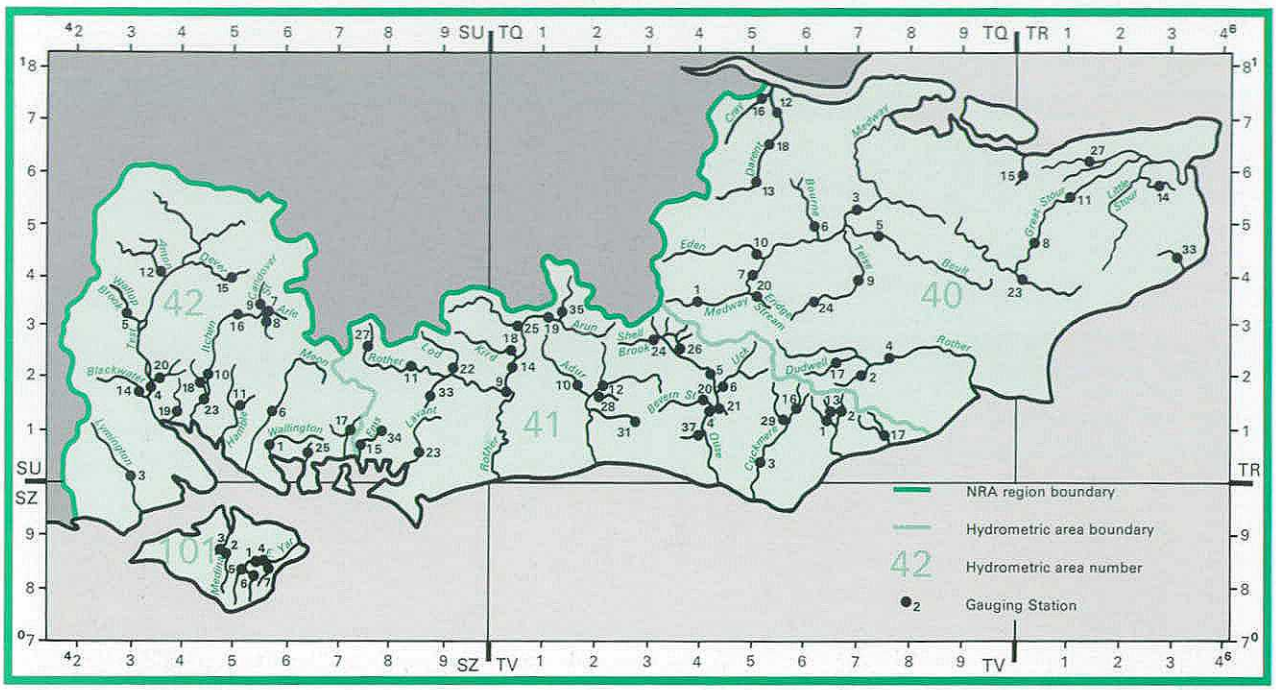
Naturalised daily and monthly flows

KEY:

Complete daily and complete monthly	A
Partial daily and complete monthly	B
Partial daily and partial monthly	C
Partial daily and no monthly	D
No daily and complete monthly	E
No daily and partial monthly	F
No naturalised flow data	-

Up-to-date Summaries of Archived Data are available on request from the National Water Archive Office.

SOUTHERN REGION



Area: 10,604 km^2

Average Rainfall (1961–90): 776mm

Gauging Station Register

Station number	River name	Station name	Grid reference	Catchment area (sq km)	Station type	Period of record	Mean ann. rainfall (mm)	Mean ann. runoff (mm)	Mean ann. loss (mm)	Max. ann. runoff (mm)	Year of max.	Min. ann. runoff (mm)	Year of min.	Mean flow (m^3s^{-1})	Min. mon. flow (m^3s^{-1})	Month/Year of min.	Mean ann. flood (m^3s^{-1})	10 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
040001 *	Medway	Weir Wood Res	TQ 407353	26.9	FL	1953–67	906	195	711	312	58	88	65	0.17	0.04	03/62		0.4	0.04
040002 *	Darwell	Darwell Res	TQ 722213	9.6	TP FL	1956..75	943	66	877	342	60	20	71	0.02	>0.00	12/71		0.0	>0.00
040003	Medway	Teston	TQ 708530	1256.1	MIS	1956..90	752	275	477	485	60	153	89	10.97	0.58	08/76	139.6	24.7	1.43
040004	Rother	Udiam	TQ 773245	206.0	VA	1962..90	861	326	535	509	66	116	73	2.13	0.15	10/89	37.4	5.1	0.20
040005	Beult	Stile Bridge	TQ 758478	277.1	MIS	1958..90	692	234	458	448	60	127	62	2.05	>0.00	08/76	38.0	5.9	0.07
040006	Bourne	Hadlow	TQ 632497	50.3	FL	1959..90	723	240	483	322	60	167	72	0.38	0.12	07/74	9.2	0.7	0.15
040007	Medway	Chafford Weir	TQ 517405	255.1	B	1960..90	856	390	466	557	74	161	73	3.15	0.43	08/76	51.5	6.1	0.52
040008	Great Stour	Wye	TR 049470	230.0	C VA	1962..90	735	303	432	475	66	166	73	2.21	0.30	08/76	19.3	4.7	0.52
040009	Teise	Stone Bridge	TQ 718399	136.2	B VA	1961–90	800	310	490	486	66	129	73	1.34	0.10	08/76	28.3	2.7	0.19
040010	Eden	Penshurst	TQ 520437	224.3	C	1961..90	757	259	498	369	66	114	73	1.84	0.18	07/76	30.8	4.1	0.23
040011	Great Stour	Horton	TR 116554	345.0	B VA	1964..90	754	294	460	431	66	165	73	3.22	0.84	09/90	21.3	6.0	1.12
040012	Darent	Hawley	TQ 551718	191.4	C	1963–90	732	101	631	176	68	17	73	0.61	0.00	10/76	6.0	1.12	0.02
040013	Darent	Otford	TQ 525584	100.5	CC	1969..90	761	171	590	244	75	80	73	0.55	0.09	08/90		1.0	0.13
040014	Wingham	Durlock	TR 276576	37.7	VN	1971..90	703	18	685	25	89	8	85	0.02	>0.00	10/85		0.1	
040015	White Drain	Fairbrook Farm	TR 055606	31.8	FL	1969..90	681	130	551	202	75	33	73	0.49	0.07	08/76		0.8	0.10
040016	Cray	Crayford	TQ 511746	119.7	CC	1969..90	761	171	590	244	75	80	73	0.55	0.09	08/90		1.0	0.13
040017	Dudwell	Burwash	TQ 679240	27.5	C	1971..90	888	345	543	393	77	158	73	0.30	0.04	09/90		0.6	0.04
040018	Darent	Lullingstone	TQ 530643	118.4	B	1969..90	745	174	571	251	75	61	73	0.65	0.06	08/76	4.6	1.2	0.15
040020	Eridge Stream	Hendal Bridge	TQ 522367	53.7	VA	1973..90	864	427	437	534	75	317	90	0.73	0.06	08/76		1.5	0.09
040023	East Stour	S Willesborough	TR 015407	58.8	FV	1976..90	752	381	371	441	80	251	90	0.71	0.01	05/76		1.8	0.04
040024 *	Bartley St	Bartley Mill	TQ 633357	25.1	B	1974..81	908	452	456	456	79	386	78	0.36	0.04	08/76		0.7	0.05
040027	Sarre Penn	Calcott	TR 174625	19.4	FV	1975..90		153		161	86	68	89	0.09	>0.00	09/90		0.3	>0.00
040033	Dour	Crabble Mill	TR 300430	49.5	FV	1976..90		273		362	86	108	89	0.43	0.03	11/90		0.8	0.03
041001	Nunningham	Tilley Bridge	TQ 662129	16.9	MIS	1950–90	839	336	503	571	51	99	73	0.18	0.01	08/76		0.4	0.01
041002	Ash Bourne	Hammer Wd Br	TQ 684141	18.4	MIS	1951..90	864	410	454	632	60	168	73	0.24	0.04	08/59		0.6	0.04
041003	Cuckmere	Sherman Bridge	TQ 533051	134.7	CBVA	1959..90	825	318	507	691	60	105	73	1.36	0.02	08/76	31.5	3.2	0.07
041004	Ouse	Barcombe Mills	TQ 433148	395.7	MIS	1956..90	841	330	511	652	60	123	73	4.14	0.14	08/76		9.2	0.32
041005	Ouse	Gold Bridge	TQ 429214	180.9	CBVA	1960..90	863	393	470	581	87	163	73	2.25	0.16	08/76	38.1	5.0	0.30
041006	Uck	Isfield	TQ 459190	87.8	C	1964–90	825	406	419	699	74	172	73	1.13	0.11	08/76	36.7	2.3	0.17
041009 *	Rother	Hardham	TQ 034178	345.8	B	1959–76	912	444	468	750	60	226	73	4.87	1.15	08/76		9.8	1.73
041010	Adur West	Hatterell Bridge	TQ 178197	109.1	FL	1961..90	792	275	517	390	88	192	90	0.95	0.01	08/89		2.6	0.03
041011	Rother	Iping Mill	SU 852229	154.0	CC	1966..90	923	443	480	583	68	204	73	2.16	0.42	08/76	43.0	4.3	0.62
041012	Adur East	Sakeham	TQ 219190	93.3	CC	1967..90	827	395	432	580	74	162	73	1.17	0.08	08/76	22.9	2.7	0.15
041013	Huggletts St	Henley Bridge	TQ 671138	14.2	TP FL	1950..90	839	333	506	557	60	100	73	0.15	0.01	10/72		0.3	0.02
041014	Arun	Pallingham Quay	TQ 047229	379.0	B VA	1970..90	772	298	474	501	74	111	73	3.59	0.21	08/76	63.3	8.4	0.33
041015	Ems	Westbourne	SU 755074	58.3	CC	1967..90	913	220	693	360	83	48	76	0.41	0.01	10/69	1.9	1.1	0.02
041016	Cuckmere	Cowbeech	TQ 611150	18.7	CC	1939..90	865	331	534	477	87	84	73	0.20	0.01	08/76	9.7	0.4	0.01
041017	Combehaven	Crowhurst	TQ 765102	30.5	CC	1969..90	780	306	474	485	87	101	73	0.30	0.01	09/90		0.7	0.02
041018	Kird	Tanyards	TQ 044256	66.8	C	1969..90	782	369	413	592	74	89	73	0.78	0.00	08/90	19.8	1.9	
041019	Arun	Alfoldean	TQ 117331	139.0	CC	1970..90	793	390	403	645	74	134	73	1.72	0.08	08/76		3.9	0.14
041020	Bevern St	Clappers Bridge	TQ 423161	34.6	C	1969..90	859	416	443	666	74	156	73	0.46	0.01	09/90	12.9	1.1	0.03
041021	Clayhill St	Old Ship	TQ 448153	7.1	C	1969..90	781	364	417	591	74	107	73	0.08	0.00	09/90	3.7	0.2	
041022	Lod	Halfway Bridge	SU 931223	52.0	C	1970..90	860	349	511	516	74	148	73	0.57	0.01	08/76	20.0	1.4	0.05
041023	Lavant	Graylingwell	SU 871064	87.2	FV	1970..90	933	93	840	163	88		89	0.26	0.00	12/90	1.5	0.8	
041024	Shell Brook	Shell Brook P S	TQ 335286	22.6	C	1971..90	857	332	525	544	74	181	78	0.24	0.01	12/90		0.5	0.02
041025	Loxwood St	Drungewick	TQ 060309	91.6	CC	1971..90	810	373	437	520	81	107	73	1.08	0.02	08/76	39.0	2.5	0.04
041026	Cockhaise Bk	Holywell	TQ 376262	36.1	C VA	1971..90	844	342	502	511	74	136	73	0.39	0.02	09/90	9.0	0.9	0.04
041027	Rother	Princes Marsh	SU 772270	37.2	C	1972–90	882	420	462	590	74	244	73	0.50	0.11	08/76	11.3	0.9	0.15
041028	Chess Stream	Chess Bridge	TQ 217173	24.0	TP FL	1964..90	843	360	483	671	74	113	73	0.27	0.01	08/73	7.7	0.6	0.02
041029	Bull	Leatands	TQ 575131	40.8	FV	1978–90	792	346	446	444	87	203	89	0.45	0.03	09/90		1.1	0.03
041031	Fulking Stream	Fulking	TQ 247113			1968..90					81		73	0.01	0.00	10/90		0.0	>0.00
041033	Costers Brook	Cocking	SU 880174	1.8		1973..90					74		76	0.06	>0.00	10/89		0.1	0.01
041034 *	Ems	Walderton	SU 786104			1966..84					69		73	0.07	0.00	12/83		0.2	
041035	North River	Brookhurst	TQ 130325	55.1	FV	1983..90	762	323	439	449	86	207	89	0.56	>0.00	08/90		1.2	0.01
041037	Winterbourne St	Lewes	TQ 403096	17.3	C	1966..90	886	175	711	376	88		89	0.10	0.00	12/90		0.3	
042001	Wallington	North Fareham	SU 587075	111.0	FL	1951..90	833	178	655	376	60	50	73	0.63	0.02	08/76	14.0	1.6	0.04
042003	Lymington	Brockenhurst Pk	SU 318019	98.9	TP	1960..90	835	316	519	427	67	130	73	0.99	0.01	07/62		2.6	0.05
042004	Test	Broadlands	SU 354188	1040.0	VA	1957..90	805	341	464	570	60	200	76	11.25	3.71	07/76		17.0	5.94
042005	Wallop Brook	Broughton	SU 311330	53.6	TP	1955..90	798	217	581	482	60	63	76	0.37	0.00	11/90	1.1	0.8	0.02
042006	Meon	Mislingford	SU 589141	72.8	FL	1958–90	913	422	491	785	60	145	73	0.98	0.07	08/76	2.9	2.0	0.18
042007	Alre	Alresford	SU 574326	57.0	C	1970..90	852	869		998	83	613	76	1.57	0.77	08/76		2.1	1.02
042008	Cheriton St	Sewards Bridge	SU 574323	75.1	C	1970–90	881	263	618	322	79	171	73	0.63	0.17	08/76	1.4	1.0	0.27
042009	Candover St	Borough Bridge	SU 568323	71.2	C	1970–90	822	240	582	290	83	158	73	0.54	0.25	10/73	1.0	0.8	0.30
042010	Itchen	Highbridge	SU 467213	360.0	C TP	1958–90	846	464	382	578	60	325	73	5.30	2.33	08/76		7.7	2.96
042011	Hamble	Frog Mill	SU 523149	56.6	C	1972–90	863	231	632	309	77	80	73	0.42	0.05	09/89	7.7	0.8	0.10
042012	Anton	Fullerton	SU 379393	185.0	C	1975–90	763	312	451	382	82	172	76	1.83	0.55	08/76	3.6	2.7	0.94
042014	Blackwater	Ower	SU 328174	104.7	C VA	1976–90	852	267	585	341	79	177	89	0.89	0.12	08/89	16.5	2.2	0.17
042015	Dever	Weston Colley	SU 496394	52.7	TP	1979..90	655	66	589	92	82	39	89	0.11	0.01	08/90		0.2	0.03
042016	Itchen	Easton	SU 512325	236.8	EM	1975..90	737	568	169	639	82	442	76	4.26	2.46	08/76		5.9	2.70
042017	Hermitage	Havant	SU 711067	17.0	VA	1987..90		523		716	88	351	90	0.28	0.05	07/90		0.7	0.03
042018	Monks Brook	Eastleigh	SU 443179	43.3	VA	1987–90	724	127	597	142	88	114	89	0.17	0.03	07/90		0.4	0.02
042019	Tanners Brook	Millbrook	SU 388133	16.0	VA	1977..90	696	333	363	443	84	237	90	0.17	0.04	07/89		0.3	0.04
042020	Tadburn Lake	Romsey	SU 362212	19.0	VA	1977..90	700	423	277	1223	90	151	83	0.25	0.02	11/78		0.6	0.04
042023	Itchen	Riverside Park	SU 445154	415.0	US	1982..90	790	405	385	437	87	297	90	5.33	2.68	09/90		8.1	2.70
042025	Lavant Stream	Leigh Park	SU 721072	54.5	VA	1981..90	869	32	837	56	88	18	83	0.05	>0.00	08/84		0.1	>0.00
101001 *	Eastern Yar	Alverstone Mill	SZ 577857	57.5	TP	1961–76	867	268	599	311	75	164	73	0.49	0.09	08/76		0.9	0.13
101002	Medina	Upper Shide	SZ 503874	29.8	FL	1965..90	859	273	586	355	81	129	73	0.26	0.04	08/76		0.4	0.07
101003	Lukely Brook	Newport	SZ 491886	16.2	CC	1980..90	823	177	646	257	88	88	89	0.09	>0.00	09/86		0.3	0.01
101004	Eastern Yar	Burnt House	SZ 583853	59.6	FV	1982–90	803	187	616	229	88	123	89	0.35	0.01	08/84		0.7	0.02
101005	Eastern Yar	Budbridge	SZ 531835	22.5	FV	1982–90	794	280	514	342	86	226	83	0.20	0.07	08/83		0.4	0.07
101006	Wroxall St	Waightshale	SZ 536839	15.8	FV	1982..90	814	267	547	369	88	152	85	0.13	0.03	08/90		0.2	0.03
101007	Scotchells Brk	Burnt House	SZ 583852	9.2	FV	1982..90	822	370	452	548	90	247	84	0.11	0.02	08/84		0.2	0.01

Hydrometric Statistics

	Period	Rainfall (mm)	% of pre1986	Runoff (mm)	% of pre1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
040003 Medway at Teston C.A: 1256.1 km²	**56..85**	**759**		**279**		**11.10**	**294.5**	**04/11 1960**	**0.38**	**22/08 1976**	**25.2**	**5.11**	**1.44**
M.A: NRA-S Level: 7m Local Number: 453202001													
F.A.R: SRPG B.F.I: .41 Sensitivity:	1986	783	103	285	102	11.35	127.1d	03/01	1.45	15/08	25.0	5.84	1.78
Comment: Crump profile weir plus sharp-crested weir superseded insensitive broad-crested weir. Flows greater than 27 m^3s^{-1} measured at well calibrated river section 2km d/s (East Farleigh), updating of primary record incomplete. Responsive regime. Complex water utilisation. Significant artificial disturbance; low flow augmentation from Bewl Water (via River Teise); > 20 yrs of naturalised flows available. # Mixed geology; impervious formations constitute up to 50% of the catchment. Diverse land use with significant areas of woodland and orchard.	1987	799	105	337	121	13.44	167.9d	17/10	2.06	15/07	24.9	6.51	2.70
	1988	690	91	290	104	11.51	138.9d	01/02	1.80	23/08	24.6	4.35	2.38
	1989	623	82	153	55	6.08	93.5d	20/12	1.34	28/07	12.6	2.56	1.48
	1990	689	91	221	79	8.78	167.6d	01/02	0.65	02/10	15.8	2.30	1.15
040004 Rother at Udiam C.A: 206.0 km²	**62..85**	**867**		**323**		**2.11**	**51.8**	**09/12 1965**	**0.11**	**02/11 1969**	**5.0**	**0.94**	**0.24**
M.A: NRA-S Level: 2m Local Number: 556505001													
F.A.R: SGE B.F.I: .39 Sensitivity: 23.8	1986	904	104	429	133	2.80	47.8	21/11	0.18	05/10	6.5	1.19	0.27
Comment: Broad-crested weir with current meter rating for high flows - calibration imprecise due to backwater effects and, for certain periods, the influence of d/s land drainage works. Flow is confined to the measuring reach (at Udiam) except in extreme flows. Offtake for Darwell reservoir (on the Dudwell tributary) is u/s. Small net export of water. # A responsive catchment developed mainly on clays of the Wadhurst series. Rural - significant expanses of woodland.	1987	929	107	433	134	2.83	42.8	08/10	0.26	13/07	6.3	1.28	0.36
	1988	834	96	378	117	2.46	38.2	29/01	0.18	27/11	6.5	0.65	0.26
	1989	726	84	205	63	1.34	24.9	20/12	**0.08**	**14/10**	3.0	0.33	0.10
	1990	778	90	246	76	1.61	41.3	31/01	**0.07**	**13/10**	4.7	0.30	0.12
040005 Beult at Stile Bridge C.A: 277.1 km²	**58..85**	**698**		**238**		**2.09**	**81.0**	**04/11 1960**	**0.00**	**20/08 1976**	**5.9**	**0.52**	**0.07**
M.A: NRA-S Level: 12m Local Number: 453210001													
F.A.R: EI B.F.I: .24 Sensitivity: 11.4	1986	742	106										
Comment: Compound stucture - central flume separated, by short divide piers, from broad-crested flanking sections with a rated section for high flows. Calibration is based upon model tests and current metering. Flood banking confines flows. Small overall impact of artificial influences - all the abstraction is agricultural (and, therefore, very variable). # Geology: principally Weald Clay (but includes some pervious sandstones) - baseflow is very low for a Kent catchment. Rural.	1987	738	106	282	118	2.48					6.9	0.65	0.12
	1988	662	95	246	103	2.15	47.8	29/01	0.07	14/07	7.2	0.35	0.12
	1989	568	81										
	1990	668	96	174	73	1.53	43.6	01/02	0.02	15/08	3.5	0.18	0.03
040007 Medway at Chafford Weir C.A: 255.1 km²	**60..85**	**867**		**394**		**3.19**	**127.4**	**03/11 1960**	**0.10**	**13/10 1961**	**6.1**	**1.50**	**0.51**
M.A: NRA-S Level: 31m Local Number: 453500001													
F.A.R: SE B.F.I: .47 Sensitivity: 10.2	1986	869	100	406	103	3.28	49.4	21/11	0.36	16/10	7.0	1.97	0.58
Comment: Humped trapezoidal flume (capacity 8.5 m^3s^{-1}) plus a rated section 0.8km d/s at Colliers Land Bridge; gaugings above bankfull included in the calibration. Channel subject to erosion during floods. Catchment includes Weir Wood Res. (which provides compensation flows). Small net export. Sluices u/s can influence levels. Quite a responsive regime despite significant baseflow. # Geology: mixed but mainly Ashdown Sands and Wadhurst Clay. The Medway drains from Ashdown Forest and the catchment is predominantly rural in character.	1987	901	104	477	121	3.85	57.2	10/10	0.70	12/07	7.9	2.15	0.87
	1988	776	90	396	101	3.19					7.1	1.27	0.68
	1989	695	80	244	62	1.98	39.1	11/04	0.38	12/09	4.0	1.02	0.52
	1990	772	89	318	81	2.57	55.8	31/01	0.48	05/08	5.4	0.88	0.50
040008 Great Stour at Wye C.A: 230.0 km²	**62..85**	**737**		**303**		**2.21**	**35.0**	**20/09 1973**	**0.13**	**06/10 1962**	**4.8**	**1.41**	**0.53**
M.A: NRA-S Level: 29m Local Number: 654306001													
F.A.R: GE B.F.I: .57 Sensitivity: 15.1	1986	789	107	349	115	2.55					4.8	1.83	0.69
Comment: Crump weir (width 7.61m) - drowns at about 3 m^3s^{-1} - VA station (just d/s) for high flows. Weedgrowth can cause overestimation of flows. Ashford effluent is a significant component of low flows; small net import of water. Flood retention reservoirs above Ashford (constructed 1990-2). Hydrographs show evidence of u/s mill sluice operation (declining). # The E.& W. branches of the Stour flow over impermeable (mainly) Weald Clay; below Ashford (the only major settlement) Chalk predominates. A rural catchment with mixed land use.	1987	811	110										
	1988	727	99	364	120	2.65					5.9	1.32	0.78
	1989	612	83	196	65	1.43	18.7	05/04	0.35	18/08	2.6	0.93	0.49
	1990	692	94	231	76	1.68	18.6	31/01	0.30	18/09	3.5	0.90	0.47
040009 Teise at Stone Bridge C.A: 136.2 km²	**61-85**	**800**		**313**		**1.35**	**48.3**	**28/12 1979**	**0.07**	**20/08 1976**	**2.8**	**0.80**	**0.19**
M.A: NRA-S Level: 25m Local Number: 453230001													
F.A.R: RPGE B.F.I: .46 Sensitivity: 22.1	1986	838	105	309	99	1.33		02/01	0.25	04/12	2.6	0.79	0.44
Comment: Broad-crested weir (crest width: 5.95m; weir capacity: approx. 3 m^3s^{-1}) in trapezoidal section with current-metering section immediately upstream. Well calibrated throughout the flow range. Significant baseflow but responsive also. Offtake for Bewl Water Reservoir is about 1km upstream. Augmentation (from Bewl Water) very evident during periods of low flow, e.g. in 1989/90. # A rural catchment developed on sand and clay of the Wealden Series.	1987	839	105	329	105	1.42		07/10	0.14	06/12	2.6	0.92	0.31
	1988	766	96	403	129	1.73		21/01	0.30	23/11	3.0	1.18	0.35
	1989	689	86	196	63	0.85		11/04	0.13	30/03	1.0	0.78	0.20
	1990	759	95	233	74	1.01		31/01	**0.05**	**09/11**	1.4	0.70	0.11
040011 Great Stour at Horton C.A: 345.0 km²	**64..85**	**755**		**297**		**3.25**	**38.3**	**09/04 1979**	**0.73**	**27/08 1976**	**6.1**	**2.40**	**1.24**
M.A: NRA-S Level: 13m Local Number: 654400001													
F.A.R: GE B.F.I: .70 Sensitivity: 9.5	1986	790	105	313	105	3.43	24.9	03/01	1.27	18/08	6.0	2.67	1.41
Comment: Broad-crested weir (width: 10.7m, insensitive) in trapezoidal section plus a VA section for flows > 20 m^3s^{-1}. EM installed 1992. All flows contained. Minor impact of artificial influences on runoff (import of 0.03 m^3s^{-1} in 1988), modest PWS and irrigation abstractions in lower valley. Flood storage reservoirs above Ashford (constructed 1990-2). U/s mill regulation evident on the hydrographs. # The E.& W. branches of the Stour flow over Weald Clay; below the confluence (at Ashford) Chalk dominates. A rural catchment with mixed land use.	1987	825	109	352	119	3.85	24.1	17/10	1.41	13/07	6.5	2.95	1.71
	1988	742	98	370	125	4.04	31.1	29/01	1.44	19/11	7.9	2.53	1.55
	1989	621	82	173	58	1.89	17.9	06/04	0.75	24/08	3.2	1.40	0.86
	1990	700	93	202	68	2.21	19.5	31/01	**0.66**	**19/09**	4.2	1.45	0.80
040012 Darent at Hawley C.A: 191.4 km²	**63-85**	**737**		**104**		**0.63**	**13.1**	**15/05 1982**	**0.00**	**27/11 1976**	**1.3**	**0.51**	**0.03**
M.A: NRA-S Level: 11m Local Number: 451321001													
F.A.R: G. B.F.I: 70 Sensitivity: 85.0	1986	772	105	84	81	0.51	2.8	03/01	0.06	13/10	1.0	0.32	0.10
Comment: Crump weir (7.62m broad). Crest width may be restricted during periods of low flow to increase sensitivity. Station is bypassed in exceptional floods. Influent above Hawley. Flow pattern affected by u/s sluices. Effect of abstractions evident at low flow (e.g. Oct.'89) Baseflows greatly reduced by increasing groundwater abstractions; regime and character of the Darent altered through time. # A mainly pervious (Chalk and U. Greensand) catchment with some sand/clay; predominantly rural with some expanding urban centres.	1987	805	109	121	116	0.74	3.8	11/10	0.17	15/01	1.3	0.65	0.21
	1988	671	91	136	131	0.82	5.8	30/01	0.10	18/09	1.7	0.56	0.15
	1989	630	85	45	43	0.27	2.9	17/03	0.00	16/10	0.7	0.14	0.01
	1990	644	87	48	46	0.29	4.0	04/02	0.00	30/10	0.7	0.08	0.01
040013 Darent at Otford C.A: 100.5 km²	**69-85**	**763**		**173**		**0.55**	**13.4**	**21/11 1974**	**0.06**	**06/09 1976**	**1.0**	**0.38**	**0.13**
M.A: NRA-S Level: 60m Local Number: 451332001													
F.A.R: B.F.I: .59 Sensitivity: 20.0	1986	807	106	173	100	0.55	12.4	20/11	0.14	02/08	0.9	0.41	0.16
Comment: Compound Crump profile weir (crests: 3.04m and 2 x 2.286m broad) with crest tapping. Superseded the original velocity-area station in 1969. Station is bypassed during floods and upstream accretion/bank encroachment is significant. Modular rating only. Flows are diminished by groundwater abstractions which show a substantial historical increase. # A mainly pervious (Chalk) catchment but with considerable areas of clay and some gravel in the valley. Predominantly rural.	1987	830	109	221	128	0.70	**14.0**	**10/10**	0.16	12/07	1.1	0.43	0.20
	1988	723	95	192	111	0.61	10.7	29/01	0.17	31/12	1.1	0.40	0.18
	1989	665	87	114	66	0.36	9.7	16/03	0.08	06/09	0.8	0.18	0.09
	1990	679	89										
040014 Wingham at Durlock C.A: 37.7 km²	71..85	701		20		0.02	1.8	13/01 1977	0.00	31/07 1976	0.1	0.01	
M.A: NRA-S Level: 4m Local Number: 654620001													
F.A.R: E B.F.I: .56 Sensitivity:	1986	782	112	13	65	0.02	0.1d	21/11	0.00	21/07	0.0	0.01	>0.00
Comment: 120 degree V-notch weir; capacity of notch about 0.09 m^3s^{-1}. Theoretical rating. Drowns for extended periods - poorly maintained downstream channel subject to blockage after high flows. Sewage effluent is a very minor flow component. Topographical catchment substantially exceeds the actual contributing area. # A mainly impervious catchment, principally Chalk - overlain in parts by Drift - plus Tertiary deposits; baseflows derive from the Thanet Sands. Predominantly rural embracing the village of Ash.	1987	794	113	17	85	0.02	0.1d	13/11	0.00	29/05	0.1	0.01	>0.00
	1988	713	102	23	115	0.03	0.1d	06/02	0.00	17/08	0.1	0.02	>0.00
	1989	588	84	25	125	0.03	0.1d	16/12	0.01	04/12	0.0	0.03	0.02
	1990	689	98	8	40	0.01	0.1d	03/02	0.00	28/06	0.0	0.00	

	Period	Rainfall (mm)	% of pre1986	Runoff (mm)	% of pre1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
040015 **White Drain at Fairbrook Farm** C.A: 31.8 km²	**69..85**	**666**		**43**		**0.04**	**2.9**	**16/05 1975**	**0.00**	**26/08 1976**	**0.1**	**0.03**	**0.01**
M.A: NRA-S Level: 8m Local Number: 652421001													
F.A.R: E B.F.I: .52 Sensitivity: 16.4	1986	734	110										
Comment: Trapezoidal critical depth flume designed for modular operation. Occasional overtopping onto wide alluvial floodplain. Runoff diminished due to groundwater abstraction from the Chalk. Sewage effluent - discharging 1km upstream - formed a major component of low flows until 1991 (sewage treatment now undertaken at Faversham - outside catchment). # Mixed geology: Chalk and Lower London Tertiaries provide baseflow, surface runoff from the London Clay.	1987	814	122	91	212	0.09	2.9	10/10	0.01	29/05	0.2	0.04	0.02
	1988	726	109	77	179	0.08	2.9	30/03	0.02	03/08	0.1	0.03	0.02
	1989	597	90	30	70	0.03	2.5	06/07	0.01	26/05	0.1	0.02	0.01
	1990	688	103	40	93	0.04	2.8	27/10	0.00	08/08	0.1	0.02	0.01
040016 **Cray at Crayford** C.A: 119.7 km²	**69-85**	**682**		**131**		**0.50**	**32.5**	**27/08 1977**	**0.00**	**14/09 1973**	**0.9**	**0.43**	**0.08**
M.A: NRA-S Level: 6m Local Number: 451220001													
F.A.R: B.F.I: .69 Sensitivity: 27.8	1986	751	110	158	121	0.60	10.8	03/08	0.25	07/10	0.9	0.55	0.32
Comment: Asymmetrical compound Crump profile weir (crests: 3.048m and 7.62m broad). Modular limit about 9 m^3s^{-1}. Contemporary flows are corrected for drowning. Flows are substantially affected by artificial influences; surface and groundwater abstractions, stormwater overflows and extensive local gravel workings. Considerable net export of water. # A mainly pervious (Chalk) catchment. Urban land use is significant up to 40% and increasing.	1987	772	113	143	109	0.54	2.8	25/08	0.25	27/07	0.7	0.51	0.38
	1988	649	95	154	118	0.58	2.9	29/01	0.28	24/12	0.8	0.57	0.37
	1989	606	89	87	66	0.33	11.0	12/09	0.12	25/06	0.5	0.29	0.17
	1990	600	88										
040017 **Dudwell at Burwash** C.A: 27.5 km²	71..85	891		364		0.32	44.5	27/12 1979	0.02	03/10 1979	0.5	0.12	0.05
M.A: NRA-S Level: 28m Local Number: 556521001													
F.A.R: B.F.I: .45 Sensitivity: 54.0	1986	944	106										
Comment: Crump profile weir (crest: 4.88m) in straight reach, high flow rating based on gaugings. Steep banks contain all but exceptional flows. Flow regime is essentially natural. # Geology: Ashdown Sands (about 80% - variable permeability) and Purbeck Beds (about 20%). A relatively steep, rural catchment draining from the High Weald.	1987	999	112										
	1988	903	101	349	96	0.30	6.5	13/01	0.03	04/08	0.9	0.10	0.04
	1989	767	86										
	1990	788	88	245	67	0.21	6.4	07/02	0.03	27/09	0.5	0.07	0.03
040018 **Darent at Lullingstone** C.A: 118.4 km²	**69-85**	*747*		**173**		**0.65**	**6.7**	**26/12 1985**	**0.02**	**14/07 1976**	**1.2**	**0.52**	**0.14**
M.A: NRA-S Level: m Local Number: 451320001													
F.A.R: B.F.I: .71 Sensitivity: 38.0	1986	803	107	193	112	0.73	3.7	03/01	0.21	02/08	1.3	0.61	0.23
Comment: Broad-crested weir (total crest width: 11m) at the outfall of an ornamental lake; stop boards fitted, in the past, to increase low flow sensitivity. Calibration based on gaugings. Baseflows are diminished by major groundwater abstractions; some channel losses also where the Darent is influent. # Catchment is predominantly pervious (Chalk). Mixed land use: agricultural with woodland plus expanding urban centres in the headwaters.	1987	827	111	219	127	0.82	4.8	10/10	0.25	12/07	1.4	0.74	0.33
	1988	712	95	214	124	0.80	5.5	29/01	0.25	30/12	1.5	0.59	0.28
	1989	656	88	113	65	0.42	3.7	17/03	0.10	06/09	0.9	0.27	0.12
	1990	672	90										
040027 **Sarre Penn at Calcott** C.A: 19.4 km²	75..85			150		0.09		15/05 1983	0.00	19/09 1982	0.3	0.03	>0.00
M.A: NRA-S Level: m Local Number:													
F.A.R:N B.F.I: Sensitivity:	1986			161	107	0.10		02/01	0.00	17/08	0.2	0.04	>0.00
Comment: Flat V (glass-fibre) weir, 1:10 cross-slope. Owned by Mid-Kent WC, operated by NRA. D/s channel control at high flows. Theoretical rating - confirmed by gaugings in the low and medium ranges. Chart recorder only. All but exceptional flows contained. Patchy flow record prior to 1980. Natural regime. # A mostly rural catchment developed on impervious Tertiary formations (London Clay predominates).	1987			228	152	0.14					0.3	0.07	0.01
	1988			204	136	0.13					0.4	0.02	>0.00
	1989			88	45	0.04		16/03	0.00	19/08	0.1	0.01	>0.00
	1990			128	85	0.08	3.1d	31/01	0.00	14/07	0.2	0.01	
040033 **Dour at Crabble Mill** C.A: 49.5 km²	76..85			324		0.51	1.6	04/05 1984			0.6	0.39	0.16
M.A: NRA-S Level: m Local Number:													
F.A.R: B.F.I: Sensitivity:	1986			362	112	0.57	1.5	06/06	0.13	13/11	0.9	0.60	0.17
Comment: Flat V weir (1:20 cross-slope, capacity: 1 m^3s^{-1}) within concrete berms in steep-sided brick-lined section, all flows contained. Theoretical rating. Modular. Chart recorder only. Velocity-area station prior to 1984. Runoff reduced by substantial GW abstraction. # The Dour is a spring-fed Chalk stream (two main branches) draining to Dover. Rural headwaters but significant development in the lower valley above Crabble Mill.	1987												
	1988												
	1989			108	33	0.17	1.4	09/09	0.04	06/12	0.3	0.13	0.07
	1990			127	39	0.20	1.2	04/05	0.01	21/10	0.5	0.12	0.02
041001 **Nunningham Stream at Tilley Bridge** C.A: 16.9 km²	**50-85**	*849*		**341**		**0.18**	**11.9**	**17/11 1963**	**0.01**	**25/08 1976**	**0.4**	**0.07**	**0.01**
M.A: NRA-S Level: 4m Local Number: 351221005													
F.A.R: R B.F.I: Sensitivity: 60.0	1986	876	103	326	96	0.17	8.3	02/01	0.01	13/08	0.4	0.04	0.01
Comment: Compound critical depth flume, with penstocks - lowered to retain water levels for irrigation purposes in the summer. Early flow records unreliable. Frequency of drowning reduced following d/s channel improvements - under non-modular conditions flows estimated using 41002. Essentially natural regime but groundwater augmentation during droughts (e.g. 1989/1990). # Varied topography developed on Hastings Beds - some permeable strata (Ashdown Sands). Mainly arable with considerable woodland.	1987	915	108	355	104	0.19	8.8	11/11	0.01	12/07	0.5	0.10	0.02
	1988	757	89	350	103	0.19	8.8	13/01	0.01	17/08	0.5	0.04	0.02
	1989	643	76	187	55	0.10	5.8	20/12	0.01	05/12	0.2	0.03	0.02
	1990	701	83	256	75	0.14	8.8	31/01	0.01	12/09	0.3	0.03	0.01
041002 **Ash Bourne at Hammer Wood Bridge** C.A: 18.4 km²	**51..85**	**871**		**413**		**0.24**	**13.1**	**17/11 1963**	**0.02**	**03/10 1973**	**0.6**	**0.12**	**0.04**
M.A: NRA-S Level: 7m Local Number: 351223005													
F.A.R: RG B.F.I: .51 Sensitivity: 22.5	1986	877	101										
Comment: Compound critical depth flume with penstocks - lowered to retain water levels for irrigation purposes in the summer. Frequecy of drowning reduced following d/s channel improvements in 1953. Highest flows exceed the structure calibration. Limited storage in Ashbourne Lake. Very small net effect of abstractions and discharges but groundwater augmentation (from Ashdown Sands) during droughts (e.g. 1989/90). # A mainly impervious catchment (Wadhurst Clay) of rural character, with considerable woodland.	1987	925	106	443	107	0.26	7.0	11/11	0.03	19/08	0.7	0.16	0.04
	1988	827	95	431	104	0.25	8.7	29/01	**0.02**	**17/09**	0.7	0.07	0.03
	1989	697	80	206	50	0.12	1.9	11/04	0.03	22/06	0.2	0.07	0.05
	1990	768	88	282	68	0.16	5.8	31/01	0.03	17/08	0.4	0.07	0.05
041003 **Cuckmere at Sherman Bridge** C.A: 134.7 km²	**59..85**	**831**		**344**		**1.47**	**83.6**	**30/01 1961**	**0.01**	**24/08 1976**	**3.3**	**0.48**	**0.08**
M.A: NRA-S Level: 4m Local Number: 351520004													
F.A.R: SP B.F.I: .28 Sensitivity: 16.3	1986	883	106										
Comment: Compound broad-crested weir (total width: 10.7m). Subject to tidal influences - drowns regularly; flows then assessed using the fall-discharge method based upon d/s levels (such adjustment not applied consistently after 1979 - flows often truncated at about 5 m^3s^{-1}). All flows contained. Responsive flow pattern. Limited net impact of variations but Arlington pumped storage reservoir upstream. # Geology is mixed (mainly Hastings Beds and Gault Clay). A narrow, mainly rural catchment with significant areas of woodland.	1987	928	112										
	1988	773	93										
	1989	682	82	114	33	0.49	5.0	13/12	0.02	22/05	1.4	0.15	0.05
	1990	716	86	152	44	0.65	14.0d	31/01	0.04	12/08	2.2	0.11	0.05
041004 **Ouse at Barcombe Mills** C.A: 395.7 km²	**56..85**	**850**		**356**		**4.47**	**128.6**	**22/11 1974**	**0.06**	**22/08 1978**	**10.0**	**2.23**	**0.38**
M.A: NRA-S Level: 5m Local Number: 352710005													
F.A.R: SRPGE B.F.I: .40 Sensitivity:	1986	885	104	244	69	3.07	63.9d	02/01	**0.01**	**02/08**	5.8	1.89	0.24
Comment: Complex structure incorporating weirs and sluices; subject to drowning - sluice operation further complicates the derivation of discharges. High flow calibration utilises levels at Hamsey (5km downstream). Water utilisation in the catchment is complex; a major abstraction is located immediately upstream. # Geology is mixed - Hastings Beds (mainly permeable) predominate. A largely rural catchment with substantial woodland and scattered urban centres.	1987	935	110	235	66	2.95	21.8d	10/10	0.27	20/12	6.7	1.82	0.49
	1988	758	89	177	50	2.21	19.3d	29/01	0.03	11/10	5.0	0.98	0.40
	1989	676	80	127	36	1.59	15.2d	20/12	0.10	18/07	3.9	0.65	0.23
	1990	773	91	144	40	1.80	23.4d	31/01	0.11	27/07	3.9	0.62	0.16

	Period	Rainfall (mm)	% of pre1986	Runoff (mm)	% of pre1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
041005 Ouse at Gold Bridge C.A: 180.9 km²	**60..85**	*876*		**390**		**2.24**	**86.9**	**22/11 1974**	**0.12**	**21/08 1976**	**5.0**	**1.26**	**0.28**
M.A: NRA-S Level: 11m Local Number: 352810006													
F.A.R: SRPGE B.F.I: .49 Sensitivity: 12.8	1986	888	101	435	112	2.49	30.7	21/11	0.34	19/09	5.9	1.60	0.40
Comment: Compound broad-crested weir (10.7m wide) for low flows; velocity-area station for higher flows. All but exceptional floods contained - 2 subsidiary culverts accommodate overflow. PWS reservoir at Ardingly (from 1978) - releases can disturb low flow pattern (augmentation during droughts) otherwise artificial influences have a limited net impact on river flows. # Mixed geology with substantial permeable outcrops - particularly Tunbridge Wells Sands. Land use is diverse - chiefly rural with significant woodland but some urban centres.	1987	949	108	581	149	3.33	73.7	09/10	0.51	12/07	6.4	1.74	0.68
	1988	757	86	448	115	2.56	49.1	27/01	0.52	03/11	5.7	1.03	0.56
	1989	672	77	236	61	1.35	18.0	20/12	0.34	23/11	2.9	0.71	0.40
	1990	785	90	330	85	1.89	46.2	31/01	0.34	03/08	3.9	0.75	0.43
041006 Uck at Isfield C.A: 87.8 km²	**64-85**	**834**		**403**		**1.12**	**75.6**	**13/02 1974**	**0.07**	**03/09 1976**	**2.3**	**0.55**	**0.18**
M.A: NRA-S Level: 11m Local Number: 352910003													
F.A.R: E B.F.I: .41 Sensitivity: 31.1	1986	875	105	524	130	1.46	58.8	20/11	0.18	16/08	2.5	0.69	0.19
Comment: Crump profile weir (7.62m wide) with crest tapping. Modular capacity is 51 m^3s^{-1} but structure is subject to drowning in the medium flow range. No substantial abstractions but occasional sluice gate activity can produce abrupt flow changes. # Catchment geology is very mixed; Hastings Beds predominate. Above Isfield the catchment is rural with significant areas of woodland.	1987	903	108	535	133	1.49	63.0	20/10	0.23	19/08	2.5	0.66	0.28
	1988	758	91	455	113	1.26	55.6	27/01	0.17	16/09	2.6	0.39	0.22
	1989	676	81	246	61	0.68	45.2	11/04	0.11	25/08	1.2	0.30	0.13
	1990	748	90	354	88	0.99	52.7	31/01	0.10	07/10	1.8	0.26	0.12
041010 Adur W Branch at Hatterell Bridge C.A: 109.1 km²	**61..85**	**800**		**280**		**0.97**	**19.8**	**18/03 1971**	**0.00**	**25/09 1983**	**2.6**	**0.26**	**0.03**
M.A: NRA-S Level: 4m Local Number: 253320002													
F.A.R: N B.F.I: .25 Sensitivity: 23.3	1986	855	107	295	105	1.02					3.2	0.34	0.07
Comment: Three-bay rectangular critical-depth flume; the flanking sections (each 2.16m wide) can be closed to concentrate flow in the central bay (0.864m). Flood flows bypass the structure; most peaks recorded as about 11 m^3s^{-1}. Sensibly natural and very responsive flow regime. # A rural catchment developed principally on impervious formations - Weald Clay dominates.	1987	869	109	238	85	0.82					2.5	0.32	0.04
	1988	700	88	391	140	1.35	11.3	20/03	0.07	22/12	4.0	0.46	0.14
	1989	650	81										
	1990	698	87	192	69	0.66	11.3	07/01	0.01	14/09	2.0	0.07	0.01
041011 Rother at Iping Mill C.A: 154.0 km²	**66..85**	**931**		**442**		**2.16**	**65.5**	**27/12 1979**	**0.37**	**24/08 1976**	**4.3**	**1.43**	**0.65**
M.A: NRA-S Level: 27m Local Number: 254340011													
F.A.R: GE B.F.I: .63 Sensitivity: 6.9	1986	1023	110	552	125	2.70	40.0	02/01	0.72	07/10	5.2	1.78	0.75
Comment: Compound Crump profile weir (crests: 3.05m and 2 x 5.03m broad). Modular apart from exceptional floods - when bypassing also occurs. Large baseflow component in river flows. Limited impact of abstractions and discharges on the flow regime. The Rother is influent above Iping Mill. # Mixed geology; 60% pervious - large tracts of Lower Greensand. A mainly rural catchment with some urban development.	1987	920	99	483	109	2.36	50.4	11/11	0.67	29/09	4.5	1.69	0.71
	1988	855	92	457	103	2.23	35.1	01/02	0.70	25/09	4.4	1.19	0.76
	1989	824	89	352	80	1.72	31.8	20/12	0.54	15/10	3.1	0.98	0.56
	1990	826	89	390	88	1.91	48.4	03/02	0.48	13/08	4.4	0.80	0.50
041012 Adur E Branch at Sakeham C.A: 93.3 km²	**67..85**	**830**		**392**		**1.16**	**44.3**	**27/12 1979**	**0.02**	**31/08 1984**	**2.7**	**0.47**	**0.15**
M.A: NRA-S Level: 3m Local Number: 253220001													
F.A.R: E B.F.I: .35 Sensitivity: 5.3	1986	910	110	431	110	1.28	31.7	21/11	0.04	17/10	2.5	0.54	0.16
Comment: Compound Crump profile weir (crests: 1.219m and 2 x 2.438m, right hand crest is 0.01m higher than left) with crest tapping. Flows rarely corrected for frequent drowning, high submergence ratios. No substantial abstractions, small net import of water; Burgess Hill sewage effluent has substantial impact on low flows. # Mixed geology - permeable headwaters but predominantly Weald Clay in lower reaches. A largely rural catchment; significant urban growth along the eastern catchment boundary.	1987	960	116	567	145	1.68	39.4	09/10	**0.02**	**28/09**	3.0	0.59	0.10
	1988	754	91	406	104	1.20	29.9	27/01	0.17	16/09	2.6	0.35	0.18
	1989	672	81	255	65	0.76	19.8	11/04	0.11	02/08	1.6	0.26	0.13
	1990	754	91	355	91	1.05	31.5	31/01	0.11	15/08	2.5	0.29	0.14
041013 Huggletts Stream at Henley Bridge C.A: 14.2 km²	**50..85**	**843**		**335**		**0.15**	**10.4**	**12/01 1956**	**0.01**	**06/10 1972**	**0.3**	**0.06**	**0.02**
M.A: NRA-S Level: 6m Local Number: 351222002													
F.A.R: RG B.F.I: .36 Sensitivity: 35.0	1986	890	106										
Comment: Compound thin-plate weir, and compound critical depth flume for higher flows. D/s dredging in 1952 facilitated modular operation (earlier data suspect) but intermittent drowning is still a factor. Responsive, essentially natural, flow regime but some groundwater augmentation (from Ashdown Sands) during droughts (e.g. 1989/90). # Huggletts St. flows south from the main High Weald drainage divide. A rural catchment developed mostly on impervious formations - extensive tracts of Wadhurst Clay.	1987	919	109	398	119	0.18	7.6	11/11	0.01	13/07	0.4	0.09	0.02
	1988	803	95	384	115	0.17	7.2	13/01	0.01	11/09	0.4	0.04	0.01
	1989	679	81	159	47	0.07	3.5	20/12	0.01	11/09	0.1	0.02	0.01
	1990	745	88	229	68	0.10	6.1	31/01	0.01	06/09	0.2	0.03	0.02
041014 Arun at Pallingham Quay C.A: 379.0 km²	**70..85**	**777**		**304**		**3.66**	**93.6**	**12/01 1972**	**0.12**	**13/09 1973**	**8.6**	**1.45**	**0.31**
M.A: NRA-S Level: 4m Local Number: 254210010													
F.A.R: E B.F.I: .32 Sensitivity: 26.5	1986	861	111	334	110	4.01	50.5	21/11	0.27	06/10	9.7	1.75	0.38
Comment: Broad-crested weir, 15m wide. Rather insensitive, with 0.03m fall along crest due to settlement. Velocity-area section for high flows. All but exceptional floods contained but post-1980 flows truncated at about 50 m^3s^{-1}; some high flows set to 'missing'. Tidal influence can cause drowning. Relatively natural catchment. # A predominantly impervious (largely Weald Clay) catchment. Land use is mixed - basically rural. Up to 20% woodland. Growing urban fraction.	1987	844	109	357	117	4.30					9.5	1.54	0.55
	1988	722	93	310	102	3.71	50.5	01/02	0.42	17/08	7.7	0.99	0.51
	1989	662	85	220	72	2.65	50.1	20/12	0.31	08/08	5.7	0.65	0.38
	1990	699	90	257	85	3.09	50.5	01/02	0.35	10/11	5.7	0.68	0.41
041015 Ems at Westbourne C.A: 58.3 km²	**67..85**	**918**		**217**		**0.40**	**4.5**	**07/08 1975**	**0.007**	**07/01 1970**	**1.1**	**0.21**	**0.01**
M.A: NRA-S Level: 10m Local Number: 255110010													
F.A.R: RG B.F.I: .92 Sensitivity: 25.0	1986	1080	118	270	124	0.50	**4.8**	**20/11**	0.02	09/10	1.1	0.42	0.04
Comment: Asymmetrical compound Crump profile weir; crests: 0.61m (showing effects of erosion) and 4.12m broad. Modular throughout flow range. All flows contained. Differential drawdown can affect river level measurement. Significant net export of water from the catchment (groundwater abstractions) but low flows augmented by compensation water (from borehole). # The Ems which is ephemeral over much of its length - is a Chalk stream draining from the South Downs. Largely rural with significant woodland.	1987	933	102	336	155	0.62	1.8	06/04	0.02	01/10	1.2	0.62	0.04
	1988	876	95	295	136	0.54	2.4	20/03	0.02	17/12	1.5	0.24	0.02
	1989	763	83	57	26	0.11	0.8	20/12	0.01	20/08	0.3	0.03	0.02
	1990	809	88	183	84	0.34	2.1	03/02	0.01	02/09	1.3	0.05	0.01
041016 Cuckmere at Cowbeech C.A: 18.7 km²	**39..85**	**874**		**324**		**0.19**	**17.8**	**27/12 1979**	**0.00**	**21/06 1976**	**0.4**	**0.08**	**0.01**
M.A: NRA-S Level: 30m Local Number: 351550005													
F.A.R: PG B.F.I: .44 Sensitivity: 100.0	1986	944	108	468	144	0.28	**18.8**	**20/11**	0.02	05/09	0.6	0.12	0.02
Comment: Asymmetrical compound Crump profile weir (crests: 2.13m and 2.97m broad) with crest tapping - not currently used. Very limited head during droughts. Structure capacity exceeded in large floods. Early data (1939-67) is of poorer quality and relates to low flows only. Responsive to rainfall on impervious fraction of catchment. Flows diminished by surface and groundwater abstractions. # A rural catchment developed on mixed geology (Hastings Beds predominate).	1987	968	111	476	147	0.28	**18.8**	**07/10**	0.01	20/08	0.6	0.14	0.03
	1988	832	95	393	121	0.23	13.6	27/01	0.02	15/08	0.6	0.08	0.03
	1989	707	81	202	62	0.12	3.5	20/12	0.01	06/09	0.3	0.04	0.01
	1990	745	85	247	76	0.15	9.4	31/01	0.01	07/08	0.3	0.03	0.01
041017 Combehaven at Crowhurst C.A: 30.5 km²	**69..85**	**779**		**297**		**0.29**	**7.5**	**21/11 1974**	**0.01**	**31/08 1982**	**0.7**	**0.14**	**0.02**
M.A: NRA-S Level: 2m Local Number: 351110006													
F.A.R: G B.F.I: .42 Sensitivity: 59.1	1986	854	110	395	133	0.38	6.8	02/01	0.02	06/10	0.8	0.18	0.02
Comment: Compound Crump profile weir (crests: 2.44m and 2 x 2.13m broad) subject to frequent drowning. Full range station. Poor differentiation between low flows over lengthy periods (repeated sequences of 0.02 m^3s^{-1} being common). Earliest data less reliable due to subsidence of the weir. # Mixed geology - mainly impervious (Wadhurst Clay) but with significant areas of Tunbridge Wells and Ashdown Sands. A predominantly rural catchment with some urban centres.	1987	905	116	485	163	0.47	**7.8**	**15/10**	0.02	03/07	0.8	0.23	0.04
	1988	789	101	421	142	0.41	7.4	29/01	0.02	23/08	1.0	0.08	0.03
	1989	653	84	156	53	0.15	5.1	16/03	**0.00**	**18/10**	0.3	0.04	0.01
	1990	709	91	223	75	0.22	6.9	03/02	0.00	10/08	0.5	0.05	

	Period	Rainfall (mm)	% of pro1986	Runoff (mm)	% of pro1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
041018 **Kird at Tanyards** C.A: 66.8 km²	**69..85**	**785**		**364**		**0.77**	**31.2**	**27/12 1979**	**0.00**	**06/09 1982**	**1.9**	**0.15**	
M.A: NRA-S Level: 9m Local Number: 254220010													
F.A.R: N B.F.I: .17 Sensitivity:	1986	884	113	446	123	0.94	20.1	20/11	0.01	02/08	2.3	0.22	0.01
Comment: Crump profile weir (8.7m broad - fall of 0.012m along crest due to settlement) with crest tapping - not currently used. Structure is insensitive and subject to drowning. Very minor impact of artificial influences on the responsive flow regime. # An impervious (Weald Clay) catchment given over to agriculture; some extensive woodland tracts.	1987	847	108	465	128	0.98	20.0	20/10	0.00	02/08	2.3	0.16	
	1988	737	94	393	108	0.83	17.4	25/01	0.00	26/08	1.7	0.06	
	1989	706	90	283	78	0.60	20.4	20/12	0.00	30/07	1.1	0.05	
	1990	723	92	340	93	0.72	27.4	03/02	0.00	26/07	1.2	0.06	
041019 **Arun at Alfoldean** C.A: 139.0 km²	**70..85**	**807**		**383**		**1.69**	**77.6**	**27/12 1979**	**0.05**	**08/08 1983**	**4.0**	**0.62**	**0.14**
M.A: NRA-S Level: 21m Local Number: 254250008													
F.A.R: E B.F.I: .30 Sensitivity: 23.6	1986	845	105	457	119	2.01	68.6	02/01	0.14	17/08	4.5	0.81	0.16
Comment: Asymmetrical compound Crump profile weir (crests: 4.0m and 6.0m broad). Crest tapping not currently used; over-estimation of high flows (structure drowns frequently). Stilling well leakage can influence water levels. Limited impact of artificial influences on river flow - small net augmentation due to sewage effluent. # Principally an impervious (Weald Clay) catchment - mainly rural but includes Horsham.	1987	844	105	562	147	2.48	71.1	10/10	0.20	20/08	4.4	0.80	0.26
	1988	727	90	423	110	1.86	59.4	29/01	0.19	27/08	3.9	0.46	0.22
	1989	628	78	268	70	1.18	53.0	20/12	0.14	08/09	2.6	0.33	0.16
	1990	688	85	348	91	1.54	65.3	03/02	0.12	05/08	2.8	0.29	0.14
041020 **Bevern Stream at Clappers Bridge** C.A: 34.6 km²	**69..85**	**857**		**421**		**0.46**	**20.7**	**22/11 1974**	**0.01**	**09/09 1976**	**1.2**	**0.14**	**0.03**
M.A: NRA-S Level: 10m Local Number: 352711019													
F.A.R: E B.F.I: .28 Sensitivity: 87.1	1986	952	111	539	128	0.59	17.8	20/11	0.01	08/09	1.4	0.17	0.02
Comment: Crump profile weir (crest: 6.0m broad) with crest tapping - not currently used. Modular limit is about 8 m^3s^{-1}. All flows contained. Negligible impact of artificial influences on river flow. # Primarily an impervious (Weald Clay) catchment but northward flowing tributaries from the South Downs provide a significant baseflow. A rural catchment with considerable woodland.	1987	982	115	495	118	0.54	17.4	20/10	0.03	08/08	1.2	0.16	0.04
	1988	824	96	383	91	0.42	13.8	01/02	0.03	15/09	1.3	0.08	0.03
	1989	732	85	256	61	0.28	12.0	11/04	0.01	24/07	0.7	0.05	0.02
	1990	822	96	327	78	0.36	15.9	31/01	**0.00**	**27/09**	0.9	0.04	0.01
041021 **Clayhill Stream at Old Ship** C.A: 7.1 km²	**69..85**	**781**		**350**		**0.08**	**6.1**	**24/11 1982**	**0.00**	**17/11 1985**	**0.2**	**0.02**	
M.A: NRA-S Level: 6m Local Number: 352712005													
F.A.R: N B.F.I: .17 Sensitivity:	1986	860	110	527	146	0.12	6.0	20/11	0.00	02/03	0.3	0.01	
Comment: Crump profile weir (crest: 3.0m broad) with crest tapping - structure has proved to be modular throughout the flow range. Some (sporadic) early flow data available from 1955. Extended periods with zero flow. # The Clayhill stream is ephemeral and drains an impervious (Weald Clay) catchment. Land use is almost exclusively rural with considerable woodland.	1987	920	118	571	159	0.13	**6.7**	**20/10**	0.00	02/05	0.2	0.01	
	1988	737	94	338	94	0.08	4.1	27/01	0.00	19/05	0.2	0.00	
	1989	669	86	194	54	0.04	2.1	11/04	0.00	06/02	0.1	0.00	
	1990	744	95	276	77	0.06	4.2	31/01	0.00	01/05	0.1	0.00	
041022 **Lod at Halfway Bridge** C.A: 52.0 km²	**70..85**	**868**		**352**		**0.58**	**41.4**	**27/12 1979**	**0.00**	**01/09 1976**	**1.4**	**0.25**	**0.05**
M.A: NRA-S Level: 14m Local Number: 254323017													
F.A.R: N B.F.I: .35 Sensitivity: 68.6	1986	965	111	411	117	0.68	17.0	19/11	0.02	16/08	1.6	0.30	0.05
Comment: Crump profile weir (crest: 7.0m broad) with crest tapping - all but highest flows modular. Some bypassing in exceptional floods. Minor flow regulation associated with upstream mill. Flows are sensibly natural - small net export of water due to groundwater abstraction. # Primarily an impervious (Weald Clay) catchment with pervious (Lower Greensand) headwaters. Rural.	1987	885	102	384	109	0.63	18.7	11/11	0.04	23/08	1.5	0.27	0.07
	1988	788	91	334	95	0.55	15.6	01/02	0.07	13/08	1.2	0.16	0.08
	1989	761	88	252	72	0.42	13.4	20/12	0.02	20/09	0.9	0.11	0.03
	1990	778	90	299	85	0.49	27.7	03/02	0.02	13/09	1.2	0.11	0.04
041023 **Lavant at Graylingwell** C.A: 87.2 km²	**70..85**	**937**		**94**		**0.26**	**5.1**	**24/02 1974**	**0.00**	**31/12 1985**	**0.8**		
M.A: NRA-S Level: 21m Local Number: 255220018													
F.A.R: G B.F.I: .84 Sensitivity:	1986	1097	117	92	98	0.25	1.2	29/01	0.00	01/08	0.7	0.15	
Comment: Flat V weir; crest breadth 5m. Cross-slope 1:10. Extended periods with zero flow. Runoff is substantially reduced by groundwater abstraction. # The Lavant is an ephemeral stream draining the dip-slope of the South Downs (Chalk). A permeable catchment - sparsely populated in the headwaters. Land use is agricultural with some urban development close to Graylingwell.	1987												
	1988	890	95	163	173	0.45	4.2	08/02	0.00	14/07	1.4	0.05	
	1989	764	82				0.0d	31/12	0.00	01/01			
	1990			64	68	0.18	1.7	25/02	0.00	01/01	0.8		
041024 **Shell Brook at Shell Brook P S** C.A: 22.6 km²	**71-85**	**861**		**335**		**0.24**	**11.3**	**21/11 1974**	**0.00**	**14/02 1979**	**0.5**	**0.15**	**0.02**
M.A: NRA-S Level: 38m Local Number: 352835017													
F.A.R: SRP B.F.I: .51 Sensitivity: 90.0	1986	895	104										
Comment: Crump profile weir (crest: 4.0m broad). Runoff pattern changed fundamentally following the construction of Ardingly Reservoir (1978) immediately upstream. # Catchment is mainly permeable Hastings Beds with Wadhurst Clay in the valley. A rural, heavily wooded basin.	1987	964	112	427	127	0.31	5.2	09/10	0.01	28/09	0.7	0.18	0.03
	1988	809	94	393	117	0.28	4.4	29/01	0.01	16/10	0.6	0.17	0.01
	1989	702	82	203	61	0.15	1.9	16/03	0.00	28/12	0.4	0.10	0.01
	1990	805	93	250	75	0.18	4.1	03/02	**0.00**	**03/01**	0.4	0.08	0.01
041025 **Loxwood Stream at Drungewick** C.A: 91.6 km²	**71..85**	**821**		**388**		**1.12**	**56.8**	**27/12 1979**	**0.01**	**02/09 1976**	**2.7**	**0.28**	**0.04**
M.A: NRA-S Level: 13m Local Number: 254240009													
F.A.R: N B.F.I: .23 Sensitivity: 35.0	1986	890	108	390	101	1.13	29.6	02/01	0.04	10/09	2.8	0.37	0.05
Comment: Asymmetrical compound Crump profile weir (crests: 2.0m and 4.0m broad) with crest tapping. Full range; all flows contained. Abstractions and discharges have a negligible impact on overall runoff but occasional anomalous behaviour at low flow. # An impervious (Weald Clay), rural catchment.	1987	842	103	415	108	1.20	42.4	21/10	0.03	17/08	2.4	0.29	0.05
	1988	722	88	338	88	0.98	26.8	29/01	0.04	21/05	2.1	0.15	0.05
	1989	705	86	243	63	0.70	29.3	21/12	0.03	11/09	1.6	0.10	0.04
	1990	726	88	306	79	0.89	37.3	03/02	0.02	31/08	1.8	0.10	0.03
041026 **Cockhaise Brook at Holywell** C.A: 36.1 km²	**71..85**	**849**		**342**		**0.39**	**8.1**	**23/01 1984**	**0.02**	**29/06 1976**	**0.9**	**0.22**	**0.05**
M.A: NRA-S Level: 29m Local Number: 352840006													
F.A.R: PG B.F.I: .53 Sensitivity: 44.0	1986	901	106	414	121	0.47	8.0	02/01	0.05	07/10	1.1	0.28	0.06
Comment: Crump profile weir (crest: 3.50m broad) for low and medium range flows. The velocity-area calibration for high flows is incomplete. Limited impact of abstractions and discharges on river flow; small net loss. # Geology is mixed - 50% permeable (chiefly Hastings Beds). A rural catchment with considerable areas of woodland.	1987	954	112	449	131	0.51					1.2	0.32	0.11
	1988	774	91	373	109	0.43	8.0	27/01	0.06	02/10	1.0	0.15	0.07
	1989	690	81	211	62	0.24	5.7	11/04	**0.01**	**12/10**	0.6	0.11	0.04
	1990	801	94	284	83	0.33	8.1	03/02	0.01	29/08	0.7	0.12	0.02
041027 **Rother at Princes Marsh** C.A: 37.2 km²	**72-85**	**880**		**427**		**0.50**	**68.0**	**16/10 1980**	**0.08**	**29/06 1976**	**1.0**	**0.34**	**0.16**
M.A: NRA-S Level: 56m Local Number: 254360008													
F.A.R: GE B.F.I: .62 Sensitivity: 23.8	1986	1006	114	442	104	0.52	13.3	18/11	0.11	15/07	1.1	0.36	0.16
Comment: Crump profile weir (crest: 5.0m broad) with crest tapping - not currently used. Additional flow data available for prototype electromagnetic gauging station (1974-79) immediately downstream. Abstractions and discharges have a minor impact on flows - small net loss. # Mixed geology - 50% permeable; Chalk predominates in the headwaters. A rural, wooded, catchment.	1987	914	104	406	95	0.48	17.8	09/10	0.15	30/09	0.8	0.35	0.16
	1988	855	97	426	100	0.50	9.1	01/02	0.13	12/09	0.9	0.40	0.16
	1989	835	95	334	78	0.39	8.7	11/04	0.12	29/07	0.7	0.23	0.13
	1990	824	94	392	92	0.46	17.8	03/02	0.11	06/08	1.0	0.21	0.12
041028 **Chess Stream at Chess Bridge** C.A: 24.0 km²	**64..85**	**846**		**367**		**0.28**	**13.2**	**21/11 1974**	**0.00**	**16/08 1983**	**0.6**	**0.11**	**0.02**
M.A: NRA-S Level: 5m Local Number: 253211017													
F.A.R: N B.F.I: .39 Sensitivity: 11.8	1986	932	110	396	108	0.30					0.7	0.12	0.02
Comment: Rectangular flume (3.35m width) with a compound thin-plate weir (which is lowered onto the flume) for low flows - normally in place May to November. Flows remain modular. No significant abstractions, very minor effluent contribution to runoff. U/s penstock operation can influence flow pattern. # Very mixed geology; Chalk along the southern watershed provides baseflow but catchment is largely impervious. Agriculture is the predominant land use.	1987	959	113	440	120	0.34	9.2	15/10	0.02	19/08	0.7	0.15	0.04
	1988	782	92	342	93	0.26	8.8	27/01	0.02	15/09	0.6	0.08	0.03
	1989	701	83	210	57	0.16	4.6	14/03	0.00	31/08	0.4	0.05	0.01
	1990	764	90	269	73	0.20	7.0	31/01	0.02	10/09	0.4	0.06	0.02
041029 **Bull at Lealands** C.A: 40.8 km²	**78-85**			**354**		**0.46**	**27.3**	**27/12 1979**	**0.00**	**29/09 1981**	**1.1**	**0.25**	**0.04**
M.A: NRA-S Level: 18m Local Number: 351540001													
F.A.R: N B.F.I: .39 Sensitivity: 35.0	1986	873		404	114	0.52	22.0	21/11	0.03	16/08	1.3	0.22	0.04
Comment: Flat V weir (crest width: 5m, cross-slope 1:10). Natural flow regime. # Rural catchment draining from the High Weald. Mixed geology.	1987	909		443	125	0.57	22.6	20/10	0.04	12/07	1.2	0.25	0.06
	1988	768		369	104	0.48	17.4	27/01	0.04	09/08	1.2	0.12	0.04
	1989	679		202	57	0.26	7.7	20/12	0.02	02/09	0.6	0.10	0.03
	1990	729		247	70	0.32	13.4	31/01	0.02	21/09	0.8	0.09	0.03

	Period	Rainfall (mm)	% of pre1986	Runoff (mm)	% of pre1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
041035 **North River at Brookhurst** C.A: 55.1 km²	**83..85**			**286**		**0.50**	**19.8**	**16/01 1984**	**0.00**	**15/09 1984**	**1.5**	**0.14**	**0.03**
M.A: NRA-S Level: m Local Number:													
F.A.R: B.F.I: Sensitivity:	1986	857		449	157	0.78	21.6	21/11	0.01	12/09	1.3	0.62	0.02
Comment: Flat V weir, 1:10 cross-slope, 5 metres wide. Large modular range. No major abstractions or discharges. Responsive regime. # A mainly impervious catchment developed mostly on Weald Clay (some Horsham Stone). Rural with significant woodland and a number of small lakes.	1987	849		398	139	0.69	32.2	09/10	0.01	21/08	1.4	0.16	0.02
	1988	772		329	115	0.57	19.9	29/01	0.01	17/09	1.5	0.08	0.01
	1989	635		207	72	0.36	21.9	20/12	0.00	28/07	0.9	0.04	>0.00
	1990	691		247	86	0.43	23.7	03/02	0.00	07/08	0.9	0.03	
042037 **Winterbourne Stream at Lewes** C.A: 17.3 km²	**66..85**			**164**		**0.09**	**3.2**	**25/11 1974**	**0.00**	**24/12 1985**	**0.3**		
M.A: NRA-S Level: m Local Number:													
F.A.R: G B.F.I: Sensitivity:	1986	979		256	156	0.14	1.4	12/01	0.00	25/06	0.4	0.01	
Comment: Twin-crested (both 1.22 m) Crump weir of steel construction (originally intended as temporary structure). Modular except for very high flows - when drowning can result from backing-up due to d/s culvert. Chart recorder only. Baseflow dominated regime. Runoff reduced by groundwater abstraction. # The Winterbourne drains the Chalk of the South Downs. Some urbanisation near the catchment outfall. Significant arable farming in the valley.	1987	1055		354	216	0.19	2.9	27/10	0.00	07/06	0.5	0.06	
	1988	842		376	229	0.21	**3.4**	**04/02**	0.00	17/05	0.5		
	1989	757					0.0d	31/12	0.00	01/01			
	1990	794		81	49	0.04	0.6	20/02	0.00	01/01	0.2		
042001 **Wallington at North Fareham** C.A: 111.0 km²	**51..85**	**841**		**180**		**0.63**	**10.9d**	**20/01 1975**	**0.00**	**03/07 1976**	**1.6**	**0.27**	**0.04**
M.A: NRA-S Level: 4m Local Number: 153309001													
F.A.R: G B.F.I: .41 Sensitivity: 25.0	1986	918	109	203	113	0.72	9.2	10/01	0.06	10/08	1.8	0.40	0.07
Comment: Flat V weir (1:10 cross-slope, 6m wide) superseded, in 1991, a compound critical-depth flume (flows truncated at about 9 m^3s^{-1} due to bypassing, missing data estimated using 42003). Flashy response, zero flow in exceptionally dry summers. GW abstraction leads to a net diminution in runoff and spray irrigation can significantly reduce summer flows. Groundwater catchment smaller than the topographical catchment. # Permeable headwaters (Chalk) with impervious Eocene clays dominating the valley. A largely rural catchment.	1987	835	99	201	112	0.71	9.2	04/04	0.04	20/08	1.8	0.38	0.05
	1988	758	90	210	117	0.74	9.2	05/01	0.05	23/06	1.9	0.20	0.06
	1989	723	86	110	61	0.39	9.2	20/12	0.02	22/06	0.9	0.14	0.03
	1990	716	85	125	69	0.44	9.2	14/02	0.01	14/07	1.2	0.11	0.02
042003 **Lymington at Brockenhurst Park** C.A: 98.9 km²	**60..85**	**840**		**324**		**1.02**	**14.9**	**10/12 1977**	**0.01**	**26/08 1976**	**2.6**	**0.47**	**0.06**
M.A: NRA-S Level: 6m Local Number: 150509001													
F.A.R: N B.F.I: .37 Sensitivity: 18.3	1986	931	111	336	104	1.05	7.9	21/04	0.06	03/07	2.8	0.63	0.09
Comment: Thin-plate weir with V notch within rectangular plate (no divide piers) - total breadth 8.48m. Theoretical rating. By-passing occurs above about 7 m^3s^{-1}; flows truncated at around 10 cumecs (a few attempts to estimate higher flows have been made). Artificial influences have a negligible impact on flows. # Principally an impervious catchment (Tertiary clay; sand and gravel also) with large tracts of heathland and forest - some valley bogs in the New Forest.	1987	804	96	325	100	1.02	10.1	15/10	0.05	16/08	2.7	0.50	0.06
	1988	756	90	282	87	0.88	10.1	29/01	0.04	24/06	2.7	0.35	0.06
	1989	798	95	222	69	0.70	10.1	20/03	0.02	08/08	1.8	0.22	0.02
	1990	765	91	230	71	0.72	10.1	02/02	0.01	06/08	2.1	0.21	0.02
042004 **Test at Broadlands** C.A: 1040.0 km²	**57..85**	**815**		**349**		**11.50**	**36.6d**	**11/01 1961**	**3.17**	**07/07 1976**	**17.4**	**10.53**	**6.09**
M.A: NRA-S Level: 10m Local Number: 151816001													
F.A.R: N B.F.I: .95 Sensitivity:	1986	874	107	314	90	10.37	19.4d	02/01	6.26	04/10	14.2	10.25	6.49
Comment: Velocity-area station, difficult to calibrate due to severe weed growth and an uneven velocity distribution. Hence flows from 42013 (EM) archived since about 1983. Primarily baseflow but some rapid runoff from the lower reaches of the Dun catchment. Topographic catchment slightly exceeds the drainage area. Considerable fish farming activity but sensibly natural flow regime. # Highly permeable catchment (90% Chalk) but with some Tertiary deposits and alluvium in the lower valley. Downland given over to agriculture - a few urban centres.	1987	711	87	319	91	10.52	22.1d	01/01	6.15	01/10	13.8	10.23	6.30
	1988	719	88	318	91	10.47	22.6d	29/01	6.89	03/08	16.3	8.64	7.27
	1989	720	88	246	70	8.11	23.5d	21/12	4.95	30/07	11.5	7.66	5.31
	1990	687	84	290	83	9.56	31.0d	15/02	5.08	23/11	18.0	6.81	5.24
042005 **Wallop Brook at Broughton** C.A: 53.6 km²	**55..85**	**814**		**229**		**0.39**	**1.8d**	**03/03 1966**	**0.00**	**10/10 1984**	**0.8**	**0.31**	**0.03**
M.A: NRA-S Level: 36m Local Number: 151808001													
F.A.R: G B.F.I: .94 Sensitivity: 70.0	1986	835	103	192	84	0.33					0.7	0.33	0.07
Comment: Rectangular thin-plate weir (crest: 4.87m). Theoretical rating. Downstream weed growth can raise tailwater levels. Upper limit of the chart recorder has been exceeded on two occasions. Flows heavily influenced by PWS borehole 1km upstream. The topographical catchment exceeds the groundwater catchment - may be only 36 sq. km. # The Wallop Brook drains a permeable (100% Chalk) catchment - typical open downland of a rural character - the 'Wallops' are the only significant settlements.	1987	664	82											
	1988	676	83	155	68	0.26	0.9	09/02	0.06	23/08	0.6	0.16	0.06
	1989	692	85	77	34	0.13	0.5	11/04	0.00	06/08	0.4	0.12	
	1990	667	82										
042006 **Meon at Mislingford** C.A: 72.8 km²	**58-85**	**921**		**429**		**0.99**	**5.3d**	**04/12 1960**	**0.05**	**07/08 1976**	**2.0**	**0.75**	**0.22**
M.A: NRA-S Level: 29m Local Number: 152803001													
F.A.R: G B.F.I: .93 Sensitivity: 15.0	1986	986	107	442	103	1.02	3.0	29/01	0.25	16/10	2.0	1.02	0.28
Comment: Rectangular critical depth flume (breadth: 3.66m) upstream of a small three-arch bridge. Theoretical rating. Some local bypassing during flood flows. Groundwater abstraction has a noticeable impact on the flow regime; small net export of water from the catchment. # Predominantly a permeable catchment (Chalk - but considerable outcrops of the less permeable Lower and Middle Chalk); some superficial cover. Impervious Reading Beds in the south. A rural catchment with some uncultivated downland.	1987	910	99	486	113	1.12	2.7	07/04	0.22	01/10	1.9	1.19	0.25
	1988	827	90	444	103	1.02	4.1	01/02	0.24	03/10	2.5	0.52	0.26
	1989	791	86	215	50	0.50	2.3	11/04	0.11	08/10	1.2	0.35	0.12
	1990	784	85	340	79	0.79	4.3	14/02	0.13	16/10	2.3	0.41	0.14
042007 **Alre at Drove Lane Alresford** C.A: 57.0 km²	**70..85**	*877*		**871**		**1.57**	**2.8d**	**13/02 1975**	**0.74**	**28/08 1976**	**2.1**	**1.49**	**0.99**
M.A: NRA-S Level: 57m Local Number: 152202001													
F.A.R: RG B.F.I: .98 Sensitivity: 3.9	1986	925	105	892	102	1.61	2.1d	29/01	1.15	11/10	2.0	1.65	1.20
Comment: Crump profile weir (crest: 2.5m), second Crump profile weir (crest: 1.5m) on side channel; instantaneous peak flows not derived. Pre-1969 monthly current metering results available. From 1989, groundwater augmentation during drought conditions. Groundwater catchment (about 114 sq. km.) substantially exceeds topographical catchment. # Principally permeable catchment (Upper Chalk overlain in patches by clay-with-flints). Rural character - rolling downland of mixed farming; some woodland. Extensive cressbeds.	1987	818	93	899	103	1.62	1.9d	01/01	1.13	01/10	1.9	1.70	1.20
	1988	766	87	931	107	1.68	2.5d	20/03	1.18	23/09	2.3	1.60	1.21
	1989	783	89	769	88	1.39	2.0d	06/06	1.09	17/10	1.7	1.30	1.15
	1990	738	84	822	94	1.49	2.3d	07/02	0.97	15/11	2.2	1.37	1.00
042008 **Cheriton Stream at Sewards Bridge** C.A: 75.1 km²	**70-85**	**891**		**267**		**0.64**	**2.0**	**13/06 1979**	**0.15**	**26/08 1976**	**1.0**	**0.57**	**0.30**
M.A: NRA-S Level: 56m Local Number: 152201001													
F.A.R: N B.F.I: .97 Sensitivity: 11.6	1986	986	111	278	104	0.66	1.3	22/01	0.32	12/10	1.0	0.70	0.35
Comment: Crump profile weir (breadth: 3.0m). All flows contained. Ephemeral in upper reaches. Low flows influenced by neighbouring R. Itchen augmentation scheme (from 1989) - slight reduction in discharge. A monthly series of gaugings prior to the installation of the weir is available (NRA-S). Contributing area differs considerably from topographical catchment. # A very permeable (Upper Chalk) catchment - isolated patches of clay-with-flints occur on high ground. Rural land use with considerable downland and wooded areas.	1987	877	98	282	106	0.67	1.1	11/11	0.31	28/09	1.0	0.70	0.32
	1988	831	93	285	107	0.68	1.7	13/02	0.36	18/09	1.2	0.49	0.37
	1989	808	91	176	66	0.42	1.2	20/12	0.19	13/10	0.8	0.38	0.20
	1990	791	89	234	88	0.56	**2.1**	**11/02**	0.24	22/10	1.2	0.42	0.24
042009 **Candover Stream at Borough Bridge** C.A: 71.2 km²	**70-85**	**836**		**243**		**0.55**	**1.4d**	**27/01 1975**	**0.24**	**14/12 1973**	**0.8**	**0.50**	**0.30**
M.A: NRA-S Level: 54m Local Number: 152203001													
F.A.R: RG B.F.I: .96 Sensitivity: 13.0	1986	898	107	240	99	0.54	0.8	29/01	0.33	09/10	0.7	0.54	0.34
Comment: Crump profile weir (crest: 3m broad), modular throughout the flow range. Monthly gaugings available from 1956. Runoff reduced by surface and groundwater abstractions but augmentation of low flows is important in dry summers - e.g. 1976 and 1989. The groundwater and topographical divides differ considerably. # An unresponsive catchment (Chalk with some patches of superficial deposits). Many perennial springs - often supporting cress beds. Predominantly rural land use with some woodland.	1987	785	94	243	100	0.55	0.8	12/11	0.30	22/09	0.7	0.58	0.32
	1988	734	88	253	104	0.57	1.1	02/02	0.34	07/10	0.9	0.46	0.36
	1989	755	90	181	74	0.41					0.6	0.38	0.27
	1990	692	83	224	92	0.51	**1.5**	**11/02**	0.26	20/12	0.9	0.41	0.30

	Period	Rainfall (mm)	% of pre1986	Runoff (mm)	% of pre1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
042010 **Itchen at Highbridge + Allbrook** - C.A: 360.0 km²	**58-85**	*858*		**471**		**5.37**	**12.8d**	**29/01**	**2.17**	**24/08**	**7.8**	**4.94**	**3.10**
M.A: NRA-S Level: 17m Local Number: 152208001								**1969**		**1976**			
F.A.R: RPG B.F.I: .96 Sensitivity: 4.9	1986	917	107	478	101	5.46	9.0d	29/01	3.22	07/10	7.6	5.56	3.40
Comment: Crump weir 7.75m broad (which can drown), superseded, in 1971, a rated section with weedgrowth problems. Plus thin-plate weir (Allbrook). All flows contained (rare bypassing resulted from wrong sluice settings). Flow augmentation from GW during droughts. GW catchment exceeds topographical catchment. Artificial influences have minor, but increasing, impact on baseflow dominated regime; small net export of water. # Very permeable catchment (90% Chalk). Land use is mainly arable with scattered settlements.	1987	794	93	459	97	5.24	8.4d	01/01	2.84	02/10	7.0	5.57	3.07
	1988	747	87	460	98	5.23	10.0d	13/02	3.03	20/09	8.6	4.18	3.24
	1989	765	89	328	70	3.75	6.4d	11/04	2.45	09/12	5.5	3.40	2.53
	1990	727	85	418	89	4.78	12.5d	07/02	2.49	04/08	8.7	3.93	2.64
042011 **Hamble at Frog Mill** C.A: 56.6 km²	**72-85**	**878**		**238**		**0.43**	**8.9**	**02/03**	**0.02**	**04/08**	**0.8**	**0.30**	**0.11**
M.A: NRA-S Level: 9m Local Number: 152502001								**1981**		**1976**			
F.A.R: G B.F.I: .67 Sensitivity: 29.2	1986	940	107	233	98	0.42	7.2	18/11	0.11	03/07	0.8	0.32	0.15
Comment: Crump profile weir (crest: 3.0m broad). Local bypassing during flood flows. Flows significantly reduced by groundwater abstraction. # A predominantly permeable (Chalk) catchment - the upper reaches of the Hamble are ephemeral - with some areas of Reading Beds. Land use is mainly rural - some urban development.	1987	869	99	269	113	0.48	7.7	08/11	0.13	01/10	0.8	0.40	0.15
	1988	767	87	237	100	0.42	7.9	20/03	0.10	03/09	0.9	0.21	0.13
	1989	750	85	142	60	0.25	7.6	11/04	**0.01**	**13/09**	0.4	0.18	0.03
	1990	742	85	181	76	0.32	7.9	07/02	0.07	19/09	0.6	0.20	0.09
042012 **Anton at Fullerton** C.A: 185.0 km²	**75-85**	**774**		**320**		**1.88**	**4.0d**	**01/02**	**0.43**	**24/08**	**2.8**	**1.75**	**0.96**
M.A: NRA-S Level: 41m Local Number: 151806001								**1975**		**1976**			
F.A.R: N B.F.I: .96 Sensitivity: 7.2	1986	873	113	325	102	1.91	2.8d	29/01	1.17	08/10	2.5	2.02	1.25
Comment: Crump profile weir (crest: 4.75m broad) with a complementary Crump profile weir (crest: 1.0m broad) on a bypass channel. Water levels influenced by local mill sluice operation and, in the summer, by eel-traps. Cressbeds in headwaters. The groundwater catchment exceeds the topographical catchment area. Significant groundwater abstraction. # An unresponsive (Chalk) catchment of rolling downland - the upper reaches of the Anton are ephemeral. Land use is rural with some urban centres.	1987	694	90	321	100	1.89	3.0d	01/01	1.11	03/10	2.5	1.87	1.21
	1988	718	93	320	100	1.87	3.1d	13/02	1.28	29/08	2.8	1.61	1.32
	1989	714	92	216	68	1.27	2.2d	11/04	0.77	16/10	1.9	1.24	0.83
	1990	679	88	293	92	1.72	**5.1d**	**07/02**	0.89	25/09	3.0	1.34	0.92
042014 **Blackwater at Ower** C.A: 104.7 km²	**76-85**	*904*		**294**		**0.98**			**0.13**	**06/09**	**2.3**	**0.54**	**0.19**
M.A: NRA-S Level: 8m Local Number: 151817001										**1981**			
F.A.R: N B.F.I: .50 Sensitivity: 25.0	1986	908	100	270	92	0.90		15/12	0.17	17/08	2.2	0.54	0.19
Comment: Crump profile weir (crest: 6.0m broad); drowns at approximately 0.4m but velocity-area calibration used for medium and high flows (includes allowance for floodplain discharge). Negligible net impact of artificial influences on the flow pattern (very minor amount of spray irrigation, also cress beds in headwaters) computed peak flows truncated over parts of the flow record. # A catchment of meadows, woodland and heath underlain by Tertiary sands, gravels and clays (mainly impervious).	1987	780	86	236	80	0.78		01/01	0.16	16/08	2.0	0.52	0.17
	1988	737	82	213	72	0.71		24/01	0.16	22/08	1.6	0.33	0.18
	1989	776	86	177	60	0.59		20/12	**0.10**	**07/08**	1.3	0.26	0.11
	1990	733	81	192	65	0.64		31/01	0.10	19/09	1.5	0.25	0.13
042015 **Dever at Weston Colley** C.A: 52.7 km²	**79..85**			**73**		**0.12**	**0.5**	**09/12**	**0.03**	**11/09**	**0.2**	**0.10**	**0.03**
M.A: NRA-S Level: 65m Local Number: 151804001								**1982**		**1984**			
F.A.R: RG B.F.I: .96 Sensitivity:	1986			67	92	0.11	0.3	29/01	0.04	02/10	0.2	0.11	0.04
Comment: Compound thin-plate V notch within Cipoletti weir (crest 3.6m), no divide piers; the thin-plate used to be removed during the winter. Very stable flow regime. Low flows influenced by groundwater augmentation scheme. Significant cress-bed development. # Principally a Chalk catchment with limited superficial deposits. Predominantly rural with some woodland.	1987			64	86	0.11	0.2	01/01	**0.02**	**14/09**	0.2	0.13	0.02
	1988			71	97	0.12	0.4	06/02	0.02	02/10	0.3	0.07	0.04
	1989			40	55	0.07	0.2	13/03	**0.02**	**28/07**	0.1	0.06	0.02
	1990	655											
042016 **Itchen at Easton** C.A: 236.8 km²	75..85			580		4.36	7.9	21/01	2.30	20/08	5.9	4.21	2.93
M.A: NRA-S Level: 42m Local Number: 152204002								1985		1976			
F.A.R: RPG B.F.I: .98 Sensitivity:	1986			571	98	4.29	6.7	29/01	2.72	11/10	5.7	4.37	2.86
Comment: Electromagnetic gauging station with insulated bed. Installed 1983 - calibration confirmed by current metering. Limited stage and velocity range makes for effective operation. Superseded a velocity-area station heavily affected by weed-growth. Largely natural regime but GW augmentation during very low flows. # A predominantly Chalk catchment with patches of superficial deposits. Largely rural with some woodland.	1987													
	1988												
	1989												
	1990	73i		508	88	3.81	8.7	11/02	2.38	15/10	6.3	3.37	2.48
042018 **Monks Brook at Eastleigh** C.A: 43.3 km²													
M.A: NRA-S Level: 8m Local Number: 152104001													
F.A.R: N B.F.I: .43 Sensitivity:	1986	880											
Comment: Flat V weir (1:10 cross-slope) with current meter calibration for high flows; superseded a velocity-area station (with piling stabilised banks). # A mostly low-lying catchment developed on impervious Tertiary formations. Mixed land use: rural headwaters with considerable woodland, substantial urban development near the station (Chandler's Ford/Eastleigh).	1987	764											
	1988	697		142		0.19			0.03	17/08	0.5	0.09	0.04
	1989	729		114		0.16			0.02	27/08	0.4	0.06	0.02
	1990	701		126		0.17			0.01	12/08	0.5	0.06	0.02
042019 **Tanners Brook at Millbrook** C.A: 16.0 km²	**77..85**			**365**		**0.19**			**0.01**	**28/08**	**0.3**	**0.17**	**0.05**
M.A: NRA-S Level: 4m Local Number: 151901001										**1980**			
F.A.R: N B.F.I: .69 Sensitivity: 52.0	1986			327	90	0.17			0.03	12/09	0.3	0.15	0.05
Comment: Velocity-area station in a trapezoidal concrete section. Initially a level only station but stage-discharge relation now established for all but the highest flows. Responsive regime. # A largely urban (Southampton) catchment developed on impervious Tertiary formations - principally Barton, Bracklesham and Bagshot Beds series (a little London Clay also).	1987			357	98	0.18			0.04	04/06	0.3	0.16	0.05
	1988			283	78	0.14			0.02	23/08	0.3	0.12	0.03
	1989			215	59	0.11					0.2	0.08	0.03
	1990	696		237	65	0.12			0.03	03/09	0.2	0.08	0.03
042023 **Itchen at Riverside Park** C.A: 415.0 km²	82..85			442		5.81	17.5d	09/12	2.94	17/09	8.1	5.35	3.76
M.A: NRA-S Level: m Local Number:								1982		1982			
F.A.R: B.F.I: Sensitivity:	1986	913											
Comment: Ultrasonic gauging station (multi-plath with reflector). Tidal effects occasionally evident (dependant on d/s sluice operation). Limited impact of artificial disturbances (small net export of water) but groundwater augmentation (in headwaters) can be important. # Principally a rural, Chalk catchment but with appreciable urban growth near the outfall (where impervious Tertiary formations predominate) - the outskirts of Southampton and Eastleigh, Winchester is also in the catchment.	1987	800		437	99	5.75	17.0	11/11	3.01	01/10	7.5	6.02	3.19
	1988	744		429	97	5.63	17.7	20/03	3.03	20/09	9.6	4.36	3.24
	1989	760											
	1990	727		297	67	3.90	19.1	03/02	1.57	20/01	5.7	3.28	2.27
042025 **Lavant Stream at Leigh Park** C.A: 54.5 km²	81..85			[illegible]		0.03			0.00	13/11	0.1	0.02	>0.00
M.A: NRA-S Level: 12m Local Number:										1985			
F.A.R: B.F.I: Sensitivity:	1986	1020											
Comment: Velocity-area station in trapezoidal section. Gaugings awaited to confirm rating for highest flows. Responsive regime. # A largely impervious catchment, substantially urbanised below the headwaters.	1987	907		40	211	0.07			0.01	09/07	0.2	0.04	0.02
	1988	844		56	295	0.10			0.02	06/08	0.3	0.04	0.02
	1989	770		47	247	0.08			0.02	28/08	0.2	0.05	0.02
	1990	797		39	205	0.07			0.00	22/11	0.2	0.04	0.01

	Period	Rainfall (mm)	% of pre1986	Runoff (mm)	% of pre1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
101002 **Medina at Upper Shide** C.A: 29.8 km²	**65..85**	*887*		**275**		**0.26**	**73.3**	**01/04**	**0.03**	**02/09**	**0.4**	**0.16**	**0.07**
M.A: NRA-S Level: 10m Local Number: 53001001								**1984**		**1976**			
F.A.R: GI B.F.I: .64 Sensitivity: 12.9	1986	954	108	304	111	0.29	6.5	02/01	0.06	16/08	0.5	0.19	0.08
Comment: Trapezoidal critical depth flume, width 2.4m (theoretically rated) with broad-crested current meter rated overflow weir for stages greater than 0.6m (1.14 m^3s^{-1}). Small abstractions for irrigation. Flow reduced in 1985 by groundwater pumping tests and, from 1989, by the Isle of Wight Conjunctive Use Scheme. # Entirely rural catchment. Agriculture is mainly arable. Fairly steep slopes in the southern headwaters. Geology is predominantly Lower Greensand with some Gault Clay and Chalk.	1987	834	94	313	114	0.30	4.9	11/11	0.10	20/08	0.5	0.21	0.11
	1988	803	91	329	120	0.31	6.5	05/01	0.11	16/08	0.6	0.18	0.13
	1989	724	82	193	70	0.18	3.1	20/12	0.04	07/08	0.3	0.11	0.06
	1990	725	82	212	77	0.20	6.4	03/02	0.05	14/08	0.4	0.10	0.06
101003 **Lukely Brook at Newport** C.A: 16.2 km²	80..85			121		0.06	0.6	20/01	0.00	23/09	0.1	0.02	0.01
M.A: NRA-S Level: 13m Local Number: 53003001								1985		1984			
F.A.R: GI B.F.I: .78 Sensitivity:	1986	956		194	160	0.10					0.3	0.08	>0.00
Comment: Compound Crump weir. # The Lukely Brook drains the Bowcombe Valley - mostly Chalk with some impervious Tertiary formations near to the catchment outfall. Rural land use.	1987	857		254	210	0.13	0.6	07/04	0.00	28/08	0.3	0.10	0.01
	1988	842		257	212	0.13	1.1	25/01	0.01	11/11	0.4	0.06	
	1989	727		87	72	0.04	0.5	13/12	0.00	19/07	0.1	0.03	0.01
	1990	736		242	200	0.12	1.4	03/02	0.01	06/08	0.4	0.05	0.01
101004 **Eastern Yar at Burnt House** C.A: 59.6 km²	82-85			179		0.34	7.9	09/12	0.00	23/08	0.7	0.19	0.01
M.A: NRA-S Level: m Local Number: 51001001								1982		1984			
F.A.R: PG B.F.I: .50 Sensitivity: 50.0	1986	955		220	123	0.42	7.9	21/11	0.00	25/09	0.9	0.24	0.03
Comment: Flat V weir. Limited head for long periods. Runoff reduced by surface and groundwater abstractions. From 1989, low flows augmented as part of the Isle of Wight Conjunctive Use Scheme. # The Eastern Yar rises as springs on the Chalk of St. Catherine's Down, Lower Greensand dominates the lower catchment. Very rural.	1987	842		218	122	0.41	7.6	11/11	0.00	23/08	0.9	0.27	0.04
	1988	780		229	128	0.43	7.8	25/01	0.02	16/08	1.1	0.19	0.05
	1989	714		123	69	0.23	6.5	20/12	0.01	28/05	0.5	0.13	0.04
	1990	725		170	95	0.32	7.9	14/02	0.02	17/07	0.8	0.12	0.04
101005 **Eastern Yar at Budbridge** C.A: 22.5 km²	82-85			240		0.17	4.4	21/01	0.05	17/07	0.3	0.13	0.06
M.A: NRA-S Level: m Local Number: 51002001								1985		1985			
F.A.R: PGI B.F.I: .63 Sensitivity: 22.9	1986	945		342	143	0.24	7.0	02/01	0.05	18/07	0.4	0.16	0.07
Comment: Flat V weir (2.98m wide, cross-slope 1:10). Limited head for extended periods. Runoff reduced by surface and groundwater abstractions. From 1989, low flows augmented as part of the Isle of Wight Conjunctive Use Scheme. # The Eastern Yar rises on the Chalk of St. Catherine's Down, below the headwaters Upper Greensand and Gault Clay dominate. Very rural, Godshill is the main settlement.	1987	837		309	129	0.22	4.7	11/11	0.06	23/08	0.4	0.14	0.08
	1988	773		328	137	0.23	5.7	20/03	0.08	15/08	0.5	0.14	0.08
	1989	704		278	116	0.20	3.5	20/12	0.06	31/05	0.3	0.17	0.07
	1990	707		267	111	0.19	7.3	03/02	0.05	13/07	0.4	0.12	0.06
101006 **Wroxall Stream at Waightshale** C.A: 15.8 km²	82-85			198		0.10	4.8	23/01	0.00	21/12	0.2	0.07	0.03
M.A: NRA-S Level: m Local Number: 51004001								1984		1982			
F.A.R: GI B.F.I: .47 Sensitivity:	1986	963		325	164	0.16	15.6	20/11	0.02	14/01	0.3	0.09	0.04
Comment: Flat V weir (2.90m wide, cross-slope 1:10). Limited head for extended periods. Runoff reduced by groundwater abstractions especially after the commissioning of the Isle of Wight Conjunctive Use Scheme (in 1989). # A rural catchment trending north-south from the Chalk of St. Boniface Down. (some Upper Greensand and Gault Clay below the headwaters).	1987	873		319	161	0.16	8.9	11/11	0.04	25/10	0.3	0.11	0.05
	1988	786		370	187	0.18	14.2	18/04	0.02	09/08	0.4	0.11	0.04
	1989	715		234	118	0.12	15.5	20/12	0.00	21/12	0.2	0.06	0.02
	1990	733											
101007 **Scotchells Brook at Burnt House** C.A: 9.2 km²	82..85			261		0.08	5.0	23/01	0.00	28/08	0.1	0.05	0.01
M.A: NRA-S Level: m Local Number: 51003001								1984		1984			
F.A.R: GI B.F.I: .34 Sensitivity: 35.0	1986	971		418	160	0.12	4.7	02/01	0.02	16/08	0.2	0.06	0.02
Comment: Flat V weir. Long periods with negligible head. Runoff reduced by groundwater abstractions. # Chalk headwaters thence Greensand and Gault formations (largely impermeable). Land use is agricultural in upper reaches, more varied below (some runoff from Shanklin/Sandown).	1987	871		443	170	0.13	4.0	20/10	0.02	20/08	0.2	0.05	0.02
	1988	807											
	1989	713		389	149	0.11	5.6	20/12	0.01	18/08	0.2	0.03	0.01
	1990	754		549	210	0.16	6.0	26/10	0.01	12/08	0.3	0.03	0.01

Summary of Archived Data – 1

Gauged daily flows, monthly peaks and monthly rainfall

Stn. number	Gauged daily flows, monthly peaks and rainfall			
040001	50s	---EAAAAAA	60s	AAAAABAE††
	70s	††††††††††	80s	†††–††††
	90s	††		
040002	50s	------eAAA	60s	AAAAAAAAEA
	70s	BBAAAe-†††	80s	†††–††††
	90s	††		
040003	50s	----eAAA	60s	AAAAABEEFF
	70s	FFCFCCCCCC	80s	BBBAAACCCC
	90s	CCf		
040004	60s	–eAAAAEEB	70s	AAAAAEAAAE
	80s	AAAAADAAAA	90s	AE
040005	50s	------eA	60s	AAAAAAAABB
	70s	AAAEAEAAAE	80s	AAAAADDDAD
	90s	AAe		
040006	50s	--------e	60s	AAAAAAABEB
	70s	AABEDEAEEE	80s	EEE††††EED
	90s	DAe		
040007	60s	eAAAAAEEEA	70s	AAAAAAAAAE
	80s	DEAAAAAADA	90s	AAe
040008	60s	–eEAAAABA	70s	AAAABEAAEE
	80s	AADAAADDDA	90s	AAe
040009	60s	-eABBBAABA	70s	AAAAAABAAA
	80s	AAAAAAAAAA	90s	AAe
040010	60s	-eAAAAAAEA	70s	AAEAEADDAA
	80s	DADAAADDDD	90s	AAe
040011	60s	---eAABAA	70s	AAAAABABAA
	80s	BADDAAAAAA	90s	AAe
040012	60s	---eAAAAAA	70s	AAAAAAAAAA
	80s	AAAAAAAAAA	90s	AAe
040013	60s	--------†E	70s	AAAAAAAAAA
	80s	AAAAAAAAAA	90s	DAe
040014	70s	-e†EEEEDEE	80s	DEDEEAAAAA
	90s	AAe		
040015	60s	--------E	70s	DDAAAAAAAE
	80s	DDEADDEAAA	90s	AAe
040016	60s	--------†E	70s	AAAAAAAAAA
	80s	AAAAAAAAAA	90s	DAe
040017	70s	-BEAEEBBDE	80s	EEDEE†DDAD
	90s	ADe		
040018	60s	--------††E	70s	AAAAAAAAAA
	80s	AAAaaaAAAA	90s	EAe
040020	70s	---eEAEEDE	80s	EEAE†††AAD
	90s	AAe		
040023	70s	------deeA	80s	ADDAEEDDDD
	90s	AAe		
040024	70s	----eEEEAA	80s	EF††††††††
	90s	††		
040027	70s	-----ffff-	80s	eddadaadda
	90s	aae		
040033	70s	------ff-	80s	edeeedaeta
	90s	aae		
041001	50s	eaAaaAAAAA	60s	AAAAaAAAAA
	70s	AAAAAAAAAA	80s	AAAAAAAAAA
	90s	AAe		
041002	50s	-eAAAAAAAA	60s	AAAAAAAAAD
	70s	AAABAAAAAA	80s	ADDDDDDAAA
	90s	AAe		
041003	50s	--------e	60s	AAAAAAAAAA
	70s	AAAAAAAAAA	80s	DDDDDDDDDA
	90s	AAe		
041004	50s	------eAAA	60s	AAAAAAAAAA
	70s	ABBBAAAAAE	80s	†FCCFCCCCC
	90s	CCf		
041005	60s	eAAAAAAAAA	70s	AAAAAAAAAA
	80s	AADDAAAAAA	90s	AAe
041006	60s	---eBAAAA	70s	AAAAAAAAAA
	80s	AAAAAAAAAA	90s	AAe
041009	50s	--------F	60s	CCCCCCCCCC
	70s	CCCCCCF†††	80s	-------†
	90s	††		
041010	60s	-eEAEADDAA	70s	ABEDDDDDDA
	80s	DDDADADDAD	90s	AAe
041011	60s	------EAAA	70s	AAAAAAAAAA
	80s	AAADAAAAAA	90s	AAe
041012	60s	------†EAA	70s	AAAAAAAAAA
	80s	AAAAADAAAA	90s	AAe
041013	50s	eAAAAAAAAA	60s	AAAAAAAAAA
	70s	AAAAAAAAAA	80s	DDAEDDDAAA
	90s	AAe		
041014	70s	eADAAAAAAA	80s	AAADDAADAA
	90s	AAe		
041015	60s	------EAA	70s	DAADDDADDD
	80s	DDAAAAAAAA	90s	AAe
041016	30s	--------F	40s	fFFFFFFFFF
	50s	FFFFFFFFF	60s	FFFFFFFEAA
	70s	AAAAAAAAAD	80s	AAAAAAAAAA
	90s	AAe		
041017	60s	--------e	70s	AAEAAAAADA
	80s	AAAAAAAAAA	90s	AAe
041018	60s	--------e	70s	AABAAABAAA
	80s	DAAADAAAAB	90s	BAe
041019	70s	eAAAAAAAAA	80s	AAADAAAAAA
	90s	AAe		
041020	60s	---------e	70s	AABAAAAAAA
	80s	AAADAAAAAA	90s	AAe
041021	60s	--------e	70s	EBABAABBED
	80s	AABBBABAAB	90s	BAe
041022	70s	eAAAAADDDD	80s	AAAAAAAAAA
	90s	AAe		
041023	70s	fBBCBBBBBB	80s	BBEBEBBeBC
	90s	bbe		
041024	70s	-EAAAAABBA	80s	DAAAAADAAA
	90s	AAe		
041025	70s	-EAAAADDDA	80s	DAAAADAAAA
	90s	AAe		
041026	70s	-EAAAADAAA	80s	AAADAAADAA
	90s	AAe		
041027	70s	-eAAAAADD	80s	DAAAAAAAAA
	90s	AAe		
041028	60s	----eEEAAA	70s	AAAAAAAAAD
	80s	DADDDADAAA	90s	AAe
041029	70s	--------ea	80s	aaaaaaAAAA
	90s	AAe		
041031	60s	--------fc	70s	cccbaaadda
	80s	aaaaaaddad	90s	dd
041033	70s	---eaaaaaa	80s	aaaaaaae-d
	90s	aae		
041034	60s	------ebbb	70s	bbbcbbbbbb
	80s	bbeef		
041035	80s	---edaAAAA	90s	AAe
041037	60s	------ebbb	70s	bbbcbbbbbb
	80s	bbbebbBBBC	90s	BBf
042001	50s	-fCCCCCCCC	60s	CCCCCCCCCC
	70s	CCCCCBDAAA	80s	AEDAAAAAAA
	90s	AEe		
042003	60s	fCCCCCCCCC	70s	CCCCCCBAAA
	80s	DAAAAAAAAA	90s	AAe
042004	50s	------fCC	60s	CCCCCCCCCC
	70s	CCCCCCCCCC	80s	FCCCCCCCCC
	90s	CCf		
042005	50s	---fCCCC	60s	CCCCCCCCCC
	70s	CCCCCFCFFF	80s	FCCCCCEDAB
	90s	EAe		
042006	50s	-------fC	60s	CCCCCCCCCC
	70s	CCCCCBAAAA	80s	AAAAAAAAAA
	90s	AAe		
042007	70s	cCCCCFCCcc	80s	ctccccCCCC
	90s	CF		
042008	70s	FCCCCBAAAA	80s	AAAAAAAAAA
	90s	AAe		
042009	70s	fCCCCBAAAA	80s	AAAAAAAAAD
	90s	AAe		
042010	50s	--------fC	60s	CCCCCCCCCC
	70s	CCCCCCCCCC	80s	CCCCcCCCCC
	90s	CCc		
042011	70s	--fCCBAAAA	80s	AAAAAAAAAA
	90s	AAe		
042012	70s	---††EBBBC	80s	CCCCCCCCCC
	90s	CCf		
042014	60s	--------††	70s	††††††EAAA
	80s	AAAaaaAAAA	90s	AAe
042015	70s	---------e	80s	adaaadaaaa
	90s	DDe		
042016	70s	----fcfff	80s	cfcfedaddd
	90s	AEe		
042017	80s	-------ead	90s	aae
042018	80s	-----†EAA	90s	AAe
042019	70s	-------ead	80s	aaaaaaaaad
	90s	AAe		
042020	70s	--------eaa	80s	adaaaaaaaa
	90s	AAe		
042023	80s	-edddEAAD	90s	AAe
042025	80s	-eaaadDAAA	90s	AAe
101001	60s	-fcfFFcfFF	70s	FcCCfcC†††
	80s	††††††††††	90s	††
101002	60s	-----eeeef	70s	eeebbeeEEE
	80s	EBEAAAAAAA	90s	AAe
101003	80s	f--eddDAAA	90s	AAe
101004	80s	-eaaaAAAA	90s	AAe
101005	80s	-eaaaAAAA	90s	AAe
101006	80s	-eaaaAAAA	90s	DDe
101007	80s	-eeadAADA	90s	AAe

Summary of Archived Data – 2

Naturalised daily and monthly flows

Stn. number	Naturalised daily, and monthly flows			
040001	50s	---FEEEEF-	60s	-FEEFEEF
040002	50s	-----FFEF	60s	FFFFFFEEF
040003	50s	-----CAAA	60s	AAAAAAAAAA
	70s	AAAAAAAA		
040004	60s	--FEEEEF
040005	60s	----FEE
040006	60s	----FEF
040007	60s	FEEEEEFF
040008	60s	----FEE
040009	60s	----FEE
040010	60s	----FEE
040011	60s	----FEEF

Gauged daily flows, monthly peaks and monthly rainfall

KEY:

	Complete rainfall	Incomplete or missing rainfall
Complete daily and complete peaks	A	a
Complete daily and partial peaks	B	b
Complete daily and no peaks	C	c
Partial daily and complete peaks	D	d
Partial daily and partial peaks	E	e
Partial daily and no peaks	F	f
No flow data	†	–

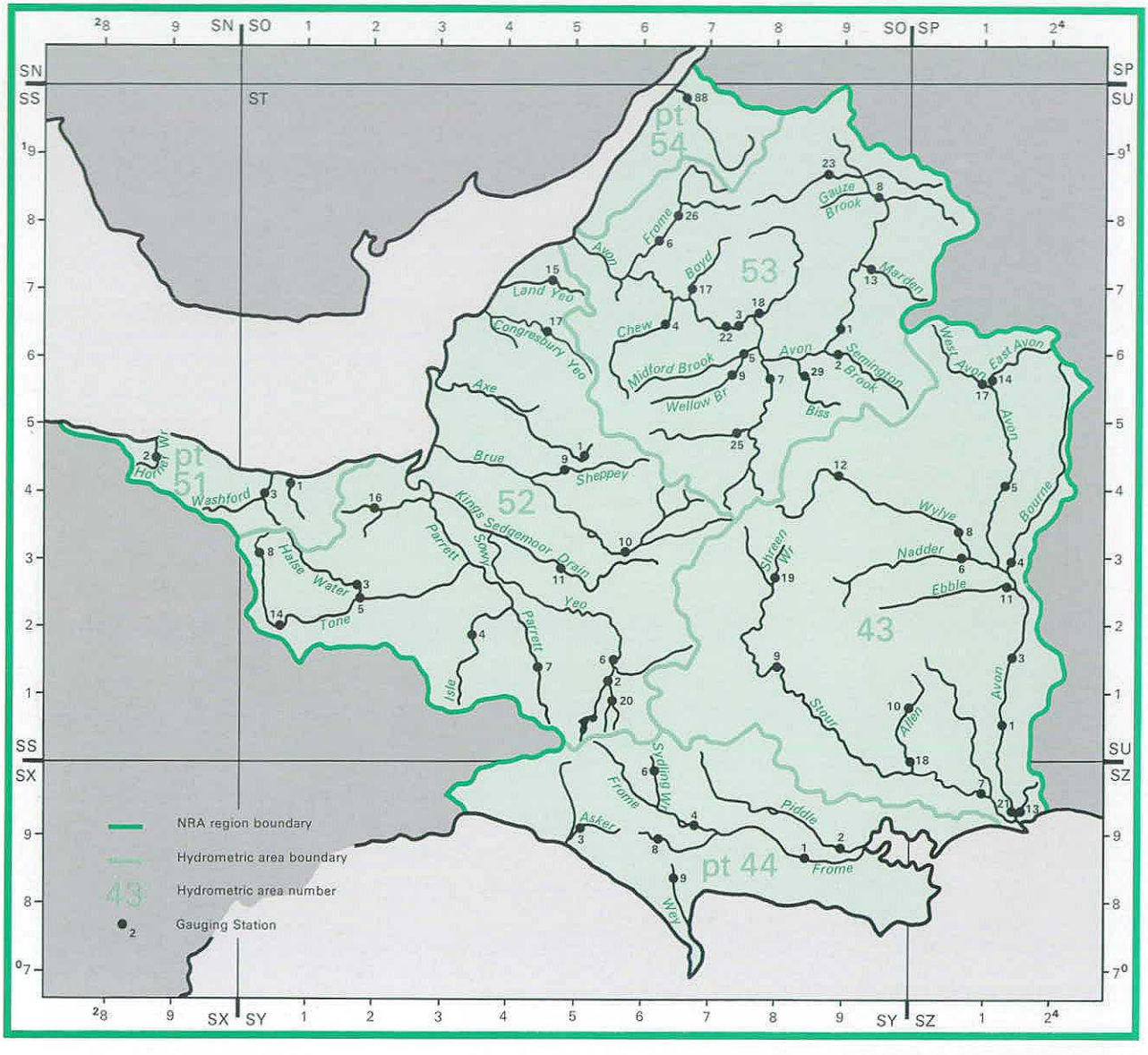
Naturalised daily and monthly flows

KEY:

Complete daily and complete monthly	A
Partial daily and complete monthly	B
Partial daily and partial monthly	C
Partial daily and no monthly	D
No daily and complete monthly	E
No daily and partial monthly	F
No naturalised flow data	–

Up-to-date Summaries of Archived Data are available on request from the National Water Archive Office.

WESSEX REGION



Area: 9,918 km²

Average Rainfall (1961–90): 869mm

Gauging Station Register

Station number	River name	Station name	Grid reference	Catchment area (sq km)	Station type	Period of record	Mean ann. rainfall (mm)	Mean ann. runoff (mm)	Mean ann. loss (mm)	Max. ann. runoff (mm)	Year of max.	Min. ann. runoff (mm)	Year of min.	Mean flow (m^3s^{-1})	Min. mon. flow (m^3s^{-1})	Month/Year of min.	Mean ann. flood (m^3s^{-1})	10 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
043001 *	Avon	Ringwood	SU 142054	1649.8	VA	1960–65	809	383	426	496	61	244	64	20.06	5.89	11/64	65.6	33.0	5.70
043003	Avon	East Mills	SU 158144	1477.8	MIS	1965..90	830	329	501	439	77	178	76	15.41	3.04	08/76		28.9	5.48
043004	Bourne	Laverstock Mill	SU 157304	163.6	C	1965..90	778	142	636	214	66	59	76	0.74	0.07	08/76	2.4	1.4	0.19
043005	Avon	Amesbury	SU 151413	323.7	C	1965–90	766	333	433	436	77	139	76	3.41	0.37	08/76	12.3	6.5	1.10
043006	Nadder	Wilton Park	SU 098308	220.6	C	1966–90	898	404	494	546	77	219	73	2.82	0.60	08/76	18.2	5.6	0.90
043007	Stour	Throop Mill	SZ 113958	1073.0	CC	1973–90	850	384	466	511	77	180	73	13.08	1.36	08/76		29.3	2.44
043008	Wylye	South Newton	SU 086343	445.4	C	1967–90	841	286	555	429	77	130	76	4.03	0.66	08/76	12.0	8.4	1.15
043009	Stour	Hammoon	ST 820147	523.1	CC	1968–90	851	415	436	581	82	154	73	6.89	0.35	08/76	111.3	18.4	0.62
043010	Allen	Loverley Mill	SU 006085	94.0	C	1970..90	884	339	545	494	74	173	73	1.01	0.12	09/76	3.5	2.5	0.18
043011 *	Ebble	Bodenham	SU 162263	109.0	C VA	1970..76	889	223	666	292	72	198	73	0.77	0.06	09/70		1.6	0.40
043012	Wylye	Norton Bavant	ST 909428	112.4	C	1971–90	930	304	626	382	77	183	76	1.08	0.28	07/76		2.1	0.44
043013 *	Mude	Somerford	SZ 184936	12.4	C	1971..83	791	252	539	323	77	158	73	0.10	0.00	08/76		0.2	0.01
043014	East Avon	Upavon	SU 133559	86.2	C	1971..90	771	289	482	346	82	181	76	0.79	0.35	08/76		1.2	0.45
043017	West Avon	Upavon	SU 133559	76.0	C	1971–90	762	272	490	410	77	124	73	0.66	0.05	08/76		1.5	0.11
043018	Allen	Walford Mill	SU 008007	176.5	C	1974–90	868	332	536	464	82	192	76	1.86	0.10	08/76		4.4	0.27
043019	Shreen Water	Colesbrook	ST 807278	29.1	C	1973–90	883	590	293	752	77	451	76	0.54	0.15	08/76		1.0	0.19
043021	Avon	Knapp Mill	SZ 155943	1706.0	US	1975..90	812	362	450	468	77	188	76	19.61	2.70	08/76		38.5	6.33
044001	Frome	East Stoke total	SY 866867	414.4	MIS	1965–90	947	496	451	695	66	300	73	6.52	1.26	08/76		12.1	2.23
044002	Piddle	Baggs Mill	SY 913876	183.1	FL	1963..90	952	405	547	557	66	229	73	2.35	0.43	08/76	8.3	4.7	0.75
044003 *	Asker	Bridport	SY 470928	49.1	C	1966–80	994	374	620	493	79	197	73	0.58	0.13	08/76	12.6	1.1	0.20
044004	Frome	Dorchester total	SY 708903	206.0	C	1971–90	986	460	526	592	86	249	73	3.00	0.35	08/76		5.9	0.81
044006	Sydling Water	Sydling St Nich's	SY 632997	12.4	C	1969–90	1036	460	576	572	79	262	73	0.18	0.05	08/76		0.4	0.06
044008 *	Sth Winterbourne	W'brne Steep'ton	SY 629897	19.9	C	1974..81	1073	158	915	204	77	55	76	0.10	0.01	08/76		0.2	0.01
044009	Wey	Broadwey	SY 666839	7.0	FV	1975..90	882	1383		1847	77	847	89	0.31	0.07	10/90		0.7	0.08
051001	Doniford St	Swill Bridge	ST 088428	75.8	VA	1967..90	911	412	499	577	82	188	73	0.99	0.10	08/76	25.1	2.3	0.19
051002	Horner Water	West Luccombe	SS 898458	20.8	C	1973..90	1479	661	818	848	86	447	75	0.44	0.03	08/76		1.0	0.05
051003	Washford	Beggearn Huish	ST 040395	36.3	VA	1966..90	1095	634	461	878	86	335	73	0.73	0.03	10/78		1.7	0.11
052001 *	Axe	Wookey	ST 527458	18.2	FL	1956–68	1176	986	190	1260	60	688	59	0.57	0.08	10/59		1.1	0.12
052002 *	Yeo	Sutton B' Res	ST 556116	30.3	MIS	1956–68	998	411	587	752	60	146	64	0.39	0.02	07/65		1.3	
052003	Halse Water	Bishops Hull	ST 206253	87.8	VA	1961..90	863	388	475	509	74	182	73	1.08	0.18	08/76	12.4	2.2	0.28
052004	Isle	Ashford Mill	ST 361188	90.1	C VA	1962–90	883	456	427	659	74	176	64	1.30	0.15	08/76	25.1	2.8	0.26
052005	Tone	Bishops Hull	ST 206250	202.0	C VA	1961–90	975	474	501	638	74	250	64	3.04	0.27	08/76	63.3	6.6	0.61
052006	Yeo	Pen Mill	ST 573162	213.1	C VA	1963–90	881	366	515	532	74	162	73	2.47	0.17	08/76	63.5	6.2	0.32
052007	Parrett	Chiselborough	ST 461144	74.8	C	1966–90	912	473	439	647	82	238	73	1.12	0.09	08/76	24.3	2.2	0.19
052008 *	Tone	Clatworthy Res	ST 044313	18.1	MIS	1960–68	1275	559	716	671	66	204	64	0.32	0.06	08/67		0.9	0.06
052009	Sheppey	Fenny Castle	ST 498439	59.6	C VA	1964..90	953	563	390	764	79	337	64	1.06	0.17	09/64	7.2	2.2	0.25
052010	Brue	Lovington	ST 590318	135.2	C VA	1964–90	888	432	456	566	77	269	73	1.85	0.13	08/76	50.7	4.3	0.25
052011	Cary	Somerton	ST 498291	82.4	CCVA	1965–90	735	299	436	450	82	180	75	0.78	0.01	08/76	10.0	2.0	0.04
052014	Tone	Greenham	ST 078202	57.2	FVVA	1967..90	1089	571	518	964	70	400	89	1.04	0.01	10/75	13.6	2.2	0.14
052015	Land Yeo	Wraxall Bridge	ST 483716	23.3	C	1971..90	887	329	558	434	71	215	73	0.24	0.03	08/76		0.5	0.05
052016	Currypool St	Currypool Farm	ST 221382	15.7	C	1971–90	906	412	494	550	82	225	73	0.20	0.04	08/76		0.4	0.06
052017	Congresbury	Iwood	ST 452631	66.6	C	1973..90	762	343	419	391	88	237	90	0.73	0.21	08/90		1.4	0.21
052020 *	Gallica St	Gallica Bridge	ST 571100	16.4	MIS	1966..78	892	465	427	623	67	263	75	0.24	>0.00	08/76		0.5	0.01
053001 *	Avon	Melksham	ST 903641	665.6	VA	1953–80	779	316	463	528	60	118	73	6.67	0.55	10/55	84.7	15.1	0.98
053002	Semington Brk	Semington	ST 907605	157.7	VA	1953–90	742	275	467	445	77	130	73	1.37	0.19	07/76		2.6	0.25
053003 *	Avon	Bath St James	ST 753645	1595.0	VA	1939..69	837	396	441	605	66	221	42	20.01	0.00	11/51	159.6	44.0	1.42
053004	Chew	Compton Dando	ST 648647	129.5	FL	1958..90	1002	257	745	430	60	132	64	1.05	0.19	08/76	37.4	2.1	0.31
053005	Midford Brk	Midford	ST 763611	147.4	FL	1961–90	977	469	508	625	86	284	73	2.19	0.22	08/76	30.6	4.8	0.40
053006	Frome (Bristol)	Frenchay	ST 637772	148.9	FL	1961–90	799	356	443	478	74	170	73	1.68	0.12	07/76	35.6	4.1	0.19
053007	Frome	Tellisford	ST 805564	261.6	FL	1961–90	962	451	511	587	66	281	64	3.74	0.29	08/76	62.9	8.5	0.61
053008	Avon	Great Somerford	ST 966832	303.0	CC	1964–90	823	343	480	441	86	140	73	3.30	0.15	08/76	41.2	8.0	0.33
053009	Wellow Brk	Wellow	ST 741581	72.6	FL	1966–90	1017	551	466	704	86	331	73	1.27	0.12	08/76	15.3	2.8	0.24
053013	Marden	Stanley	ST 955729	99.2	FL	1970–90	757	377	380	526	77	199	73	1.19	0.13	08/76		2.5	0.24
053017	Boyd	Bitton	ST 681698	48.0	FV	1973–90	797	368	429	466	74	237	90	0.56	0.02	08/76		1.4	0.05
053018	Avon	Bathford	ST 786671	1552.0	VA	1969–90	834	343	491	450	77	211	73	16.89	1.72	08/76		36.2	3.09
053019	Woodbr' Brk	Crab Mill	ST 949866	46.6	TP	1969–90	746	365	381	583	71	131	73	0.54	0.00	08/76	25.2	1.0	0.03
053020	Gauze Brook	Rodbourne	ST 937840	28.2	TP	1968–90	815	311	504	451	71	117	73	0.28	>0.00	08/76	4.8	0.7	0.02
053022 *	Avon	Bath ultrasonic	ST 738651	1605.0	US	1976–84	903	437	466	492	82	366	78	22.22	4.03	07/84		49.1	4.50
053023	Sh'rston Avon	Fosseway	ST 891870	89.7	FV	1976..90	861	341	520	438	82	217	90	0.97	0.09	10/79		2.3	0.11
053024	Tetbury Avon	Brokenborough	ST 914893	73.6	FV	1978–90	845	311	534	427	83	220	90	0.73	0.04	10/90		1.9	0.05
053025	Mells	Vallis	ST 757491	119.0	C	1980–90	1076	425	651	530	86	333	90	1.60	0.17	08/89		3.7	0.19
053026	Frome (Bristol)	Frampton Cott'll	ST 667822	78.5	C	1978–90	812	402	410	525	82	238	90	1.00	0.07	08/90		2.4	0.09
053028	By Brook	Middlehill	ST 815688	102.0	FV	1982–90	864	450	414	531	86	273	90	1.45	0.16	09/90		3.9	0.22
053029	Biss	Trowbridge	ST 854579	73.2		1984–90	670				86		90	0.86	0.18	09/90		1.9	0.18
054088	Little Avon	Berkeley Kennels	ST 683988	134.0	VA	1978–90	775	254	521	317	86	189	90	1.08	0.21	08/89		2.1	0.25

Hydrometric Statistics

	Period	Rainfall (mm)	% of pre-1986	Runoff (mm)	% of pre-1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
043003 **Avon at East Mills** C.A: 1477.8 km²	**65-85**	*847*		**337**		**15.81**	**56.3d**	**17/02 1974**	**2.52**	**26/08 1976**	**29.1**	**13.28**	**6.03**
M.A: NRA-W Level: m Local Number: 430009													
F.A.R: N B.F.I: .91 Sensitivity:	1986	918	108	371	110	17.37	44.1d	30/01	6.69	18/10	33.0	15.07	7.13
Comment: Critical depth rectangular flume. Complementary compound Crump profile weir with central notch fish pass. Low-medium flow range station. A small irrigation carrier is fed from the R. Avon 3km upstream at Burgate and bypasses the gauging station (normally less than 3% of the total flow). High flows are channelled along the carrier and generally the peak at East Mills is unrepresentative. Pre-September 1965 flows are for flume only. # Predominantly permeable (Chalk) catchment. Land use - rural.	1987	730	86	311	92	14.57	40.8d	02/01	5.53	30/09	26.8	11.76	5.87
	1988	760	90										
	1988	761	90	229	68	10.74	37.0d	01/04	4.47	18/10	20.4	8.09	4.67
	1990	712	84	275	82	12.90	56.1d	16/02	3.77	12/08	29.5	8.38	3.98
043004 **Bourne at Laverstock Mill** C.A: 163.6 km²	**65..85**	**788**		**147**		**0.76**	**3.9**	**04/03 1966**	**0.05**	**28/08 1976**	**1.4**	**0.58**	**0.23**
M.A: NRA-W Level: 46m Local Number: 430015													
F.A.R: N B.F.I: .92 Sensitivity: 13.2	1986	896	114										
Comment: Crump weir, crest 3m broad. Theoretically rated. Situated approx. 1.6km upstream of confluence with R. Avon. Out of bank flow may occur just upstream of station when flow exceeds 6 m^3s-1. Bypass channel upstream of gauging station, but sluice is closed and no longer operates. Heavy weedgrowth during summer months, needs regular maintenance. # Permeable Chalk catchment. Land use rural with some small settlements.	1987	687	87										
	1988	706	90										
	1988	702	89	85	58	0.44	**8.0**	**10/08**	0.13	17/10	0.9	0.34	0.15
	1990	654	83	142	97	0.74	3.8	25/02	0.14	27/09	2.2	0.34	0.15
043005 **Avon at Amesbury** C.A: 323.7 km²	**65-85**	**775**		**334**		**3.43**	**17.3**	**16/03 1982**	**0.18**	**22/08 1976**	**6.6**	**2.82**	**1.15**
M.A: NRA-W Level: 67m Local Number: 430001													
F.A.R: G B.F.I: .91 Sensitivity: 9.8	1986	861	111	368	110	3.77	12.1	30/01	1.39	07/10	6.6	3.77	1.48
Comment: Crump profile weir (crest 9.14m broad) flanked by broad-crested weirs. Small bypass channel approx. 2m u/s of weir - included in rating. Full range station. Bankfull is 1.37m. During summer, flows are naturally augmented from groundwater draining from northern half of River Bourne catchment. Some groundwater pumping also takes place within the catchment. # Predominantly permeable (Chalk) catchment with a small inlier of Upper Greensand and Gault. Land use - rural. Topographical and groundwater catchments do not coincide.	1987	694	90	346	104	3.55	10.3	01/01	1.33	01/10	6.1	3.09	1.43
	1988	727	94	344	103	3.52	12.6	04/02	1.35	15/08	6.7	2.49	1.42
	1988	700	90	236	71	2.42	9.3	21/12	0.82	02/10	4.7	2.09	0.87
	1990	642	83	338	101	3.47	**28.5**	**04/02**	0.84	19/09	7.8	1.66	0.87
043006 **Nadder at Wilton Park** C.A: 220.6 km²	**66-85**	**914**		**410**		**2.86**	**47.9**	**28/12 1979**	**0.49**	**24/08 1976**	**5.7**	**2.21**	**0.94**
M.A: NRA-W Level: 51m Local Number: 430025													
F.A.R: N B.F.I: .82 Sensitivity: 18.8	1986	996	109	466	114	3.26	14.9	09/12	0.89	07/10	6.5	2.74	0.96
Comment: Crump weir, crest 18.3m broad. Crest tapping in operation for first few months and then abandoned - modular limit (0.6m) seldom reached. Flows greater than 18.3 m^3s^{-1} measured upstream of weir at Bulls Bridge. Sluices and hatches can regulate flow for short periods. Minor groundwater pumping in catchment. # Mixed geology - predominantly Chalk with clays in upper catchment. Land use - rural.	1987	768	84	392	96	2.74	11.0	04/04	0.82	06/08	5.2	2.34	0.99
	1988	817	89	340	83	2.37	13.4	01/02	0.94	17/09	4.6	1.67	0.99
	1988	850	93	318	78	2.22	20.3	25/05	0.76	06/12	4.6	1.46	0.80
	1990	784	86	383	93	2.68	26.6	03/02	0.69	19/10	5.7	1.38	0.75
043007 **Stour at Throop Mill** C.A: 1073.0 km²	**73-85**	**861**		**389**		**13.23**	**280.0**	**28/12 1979**	**1.12**	**13/08 1976**	**29.5**	**8.01**	**2.62**
M.A: NRA-W Level: 4m Local Number: 430021													
F.A.R: PGE B.F.I: .67 Sensitivity: 4.2	1986	974	113	468	120	15.91	112.7	30/01	3.61	13/10	35.5	10.39	3.93
Comment: Compound Crump profile weir, centre crest 5m broad and 2 higher flanking crests 18.0m broad. Site unapproachable in flood conditions and high flows are measured at Blackwater Bridge (SZ134959). Prior to 1977 high flows measured at Ensbury (3km d/s of station). Rating incorporates flow through two bypass channels just u/s of station: mill channel and Lodden Stour. Substantial ground and surface water abstractions. Some effluent returns. # Mixed geology - predominantly Chalk with some clay. Land use - rural.	1987	756	88	367	94	12.50	88.2	05/04	2.88	20/09	23.2	9.04	3.08
	1988	796	92	360	93	12.20	88.1	02/02	3.09	16/08	27.1	6.24	3.22
	1988	818	95	303	78	10.30	112.7	22/12	2.12	06/09	21.3	5.50	2.25
	1990	772	90	368	95	12.53	137.7	04/02	1.52	10/08	33.5	4.59	1.73
043008 **Wylye at South Newton** C.A: 445.4 km²	**67-85**	**851**		**289**		**4.09**	**20.4**	**15/02 1974**	**0.56**	**26/08 1976**	**8.4**	**3.14**	**1.21**
M.A: NRA-W Level: 56m Local Number: 430019													
F.A.R: N B.F.I: .91 Sensitivity: 7.4	1986	931	109	324	112	4.57	12.1	29/01	1.41	16/10	9.2	4.10	1.55
Comment: Crump profile weir, crest 10.7m broad. Full range station. Subject to drowning at high discharges. Heavy weed growth during summer months. Sluice control upstream for river regulation. # Predominantly Chalk with Upper Greensand and Gault in higher parts of catchment. Land use - rural.	1987	746	88	291	101	4.11	11.6d	01/01	1.28	02/10	8.4	3.10	1.42
	1988	787	92	271	94	3.81	15.4	14/02	1.24	26/09	7.9	2.18	1.33
	1988	769	90	196	68	2.77	9.0	21/12	0.95	04/10	5.9	2.02	1.01
	1990	743	87	276	96	3.90	**21.5**	**01/08**	0.74	23/10	9.3	2.05	0.81
043009 **Stour at Hammoon** C.A: 523.1 km²	**68-85**	**860**		**414**		**6.86**	**231.4**	**27/12 1979**	**0.21**	**02/11 1975**	**18.2**	**2.34**	**0.63**
M.A: NRA-W Level: 41m Local Number: 430013													
F.A.R: PG B.F.I: .33 Sensitivity: 136.0	1986	971	113	553	134	9.17	110.0	29/01	0.67	17/08	27.3	3.17	0.82
Comment: Compound Crump profile weir with low flow crest 6.1m broad, total breadth 18.3m. Structure situated under road bridge. High flows calibrated up to 3.1m. Water meadow system operates area floods during high discharges; bypassing of station occurs and gaugings are made d/s at Haywoods Bridge (ST824120). Severe weed growth affects flow. Substantial ground and surface water abstractions within the catchment. # Predominantly impermeable (clay) catchment. Rural land use.	1987	745	87	357	86	5.92	99.5	04/04	0.61	21/08	15.2	2.47	0.69
	1988	792	92	395	95	6.54	105.8	01/02	0.73	29/06	20.5	1.94	0.79
	1988	823	96	416	100	6.90	121.1	21/12	0.50	19/07	15.1	1.60	0.54
	1990	771	90	381	92	6.32	147.8	03/02	0.38	09/08	16.7	1.11	0.49
043012 **Wylye at Norton Bavant** C.A: 112.4 km²	**71-85**	**940**		**297**		**1.06**	**6.7**	**30/05 1979**	**0.23**	**10/07 1976**	**2.1**	**0.80**	**0.42**
M.A: NRA-W Level: 97m Local Number: 430017													
F.A.R: E B.F.I: .87 Sensitivity: 14.8	1986	1032	110	363	122	1.29	4.5	29/01	0.54	04/09	2.3	1.19	0.59
Comment: Crump profile weir, crest 6.09m broad. Full range station. Out of bank flow may occur just upstream before bankfull at gauging station. Hatcheries upstream can affect flows. Some augmentation from effluent returns. # Geology - Chalk with Upper Greensand and Gault in higher parts of catchment. Land use - rural.	1987	845	90	330	111	1.18	3.8	09/04	0.56	06/09	2.0	1.06	0.60
	1988	902	96	341	115	1.21					2.0	0.98	0.62
	1988	870	93	269	91	0.96	5.5	20/12	0.44	24/08	1.9	0.73	0.46
	1990	832	89	315	106	1.12	**7.3**	**03/02**	0.41	09/09	2.4	0.64	0.43
043014 **East Avon at Upavon** C.A: 86.2 km²	**71-85**	**778**		**293**		**0.80**	**6.2**	**27/12 1979**	**0.30**	**26/08 1976**	**1.2**	**0.71**	**0.47**
M.A: NRA-W Level: 92m Local Number: 430022													
F.A.R: N B.F.I: .89 Sensitivity: 9.3	1986	890	114	304	104	0.83	2.9	15/12	0.45	08/08	1.2	0.80	0.48
Comment: Crump profile weir, crest 3.05m broad. Station adjacent to West Avon at Upavon (43017); the two weirs gauge the two branches of the Avon immediately upstream of their confluence at Upavon. Full range station. Occasional upstream hatch action. # Predominantly Upper Greensand and Lower Chalk; some Gault. Upper Chalk and clay forms the northern and extreme southern borders of the catchment. Land use - predominantly pastoral.	1987	727	93										
	1988	743	96	295	101	0.80	3.0	12/10	0.51	18/09	1.2	0.69	0.54
	1988	712	92	235	80	0.64	4.0	20/12	0.41	04/09	0.9	0.59	0.43
	1990	638	82	269	92	0.74	**6.2**	**03/02**	0.35	16/08	1.2	0.56	0.41
043017 **West Avon at Upavon** C.A: 76.0 km²	**71-85**	**777**		**278**		**0.67**	**10.5**	**27/12 1979**	**0.02**	**28/08 1976**	**1.5**	**0.42**	**0.12**
M.A: NRA-W Level: 92m Local Number: 430023													
F.A.R: G B.F.I: .71 Sensitivity: 27.5	1986	827	106	307	110	0.74	5.3	29/01	0.12	07/10	1.6	0.59	0.17
Comment: Crump profile weir, crest 4.57m broad. Station adjacent to East Avon at Upavon (43014); the two weirs gauge the two branches of the Avon immediately upstream of their confluence at Upavon. Full range station. Minor groundwater abstractions in catchment. # Predominantly Upper Greensand and Lower Chalk; some Gault. Upper Chalk and clay forms the northern and extreme southern borders of the catchment. Land use - rural.	1987	706	91	259	93	0.62	4.4	04/04	0.17	02/10	1.1	0.50	0.18
	1988	738	95	269	97	0.65					1.4	0.38	0.16
	1988	708	91	182	65	0.44	10.5	21/12	0.09	26/07	1.1	0.27	0.10
	1990	650	84	247	89	0.59	**11.0**	**03/02**	0.07	13/09	1.5	0.18	0.08

	Period	Rainfall (mm)	% of pre-1986	Runoff (mm)	% of pre-1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
043018 **Allen at Walford Mill** C.A: 176.5 km²	**74-85**	**868**		**344**		**1.93**	**9.0**	**27/12 1979**	**0.07**	**23/08 1976**	**4.5**	**1.27**	**0.31**
M.A: NRA-W Level: 19m Local Number: 430024													
F.A.R: PG B.F.I: .91 Sensitivity: 19.4	1986			379	110	2.12	8.4	29/01	0.46	26/07	5.3	1.57	0.48
Comment: Two Crump profile weirs: main channel weir crest 6.1m broad; secondary weir in mill stream adjacent to main channel - 0.9m broad. Rating includes mill channel. Weed growth occasionally causes structure to drown out. Hatch activity upstream of station. Minor surface and groundwater abstractions in catchment. Compensation discharge maintains low flows. # Upper catchment - Chalk, lower catchment - sands, gravels and clays. Land use - predominantly rural.	1987			322	94	1.80	6.3d	01/01	0.36	28/09	4.2	1.41	0.40
	1988			299	87	1.67	8.1	13/02	0.32	22/08	4.4	0.81	0.37
	1988			199	58	1.11	5.2	20/12	0.17	07/09	2.8	0.72	0.21
	1990			324	94	1.81	**13.1**	**14/02**	0.15	07/09	5.3	0.51	0.19
043019 **Shreen Water at Colesbrook** C.A: 29.1 km²	**73-85**	**887**		**605**		**0.56**	**21.2**	**30/05 1979**	**0.13**	**22/08 1976**	**1.0**	**0.39**	**0.19**
M.A: NRA-W Level: 72m Local Number: 430006													
F.A.R: G B.F.I: .66 Sensitivity: 10.0	1986	1003	113	630	104	0.58			0.21	12/10	1.2	0.42	0.23
Comment: Crump profile weir, crest 3m broad. Theoretically rated. All flows above bankfull recorded as 6.8 m^3s^{-1}. Significant groundwater pumping in catchment. Some augmentation from effluent returns. Runoff figures suggest topographical and hydrological catchment areas do not coincide. # Predominantly Kimmeridge Clay. Some Chalk and Upper Greensand in the north of the catchment. Land use - agricultural.	1987	797	90	542	90	0.50			0.18	01/10	0.8	0.40	0.20
	1988	862	97	575	95	0.53			0.23	18/09	1.0	0.39	0.24
	1988	828	93	513	85	0.47			0.19	06/12	0.8	0.33	0.20
	1990	843	95	503	83	0.46			0.14	04/12	1.0	0.25	0.16
043021 **Avon at Knapp Mill** C.A: 1706.0 km²	**75-85**	**828**		**365**		**19.74**	**99.5**	**19/09 1978**	**2.49**	**22/08 1976**	**39.0**	**15.80**	**6.41**
M.A: NRA-W Level: 1m Local Number: 430014													
F.A.R: P B.F.I: .89 Sensitivity:	1986	912	110	395	108	21.37	49.6d	01/02	8.20	11/10	40.5	18.83	8.84
Comment: Ultrasonic station, Harwell single path. The station level refers to mean bed level - 0.875m AOD. Both banks are piled and the bed is dredged to form a rectangular cross-section. Up to Aug 1988 - very limited number of flow readings logged per day. Hydrometric rating poor. Review of replacing ultrasonic equipment in process. Some abstraction for PWS in catchment. # Mixed geology - predominantly Chalk; lower catchment composed of sands, gravels and clays. Land use - rural.	1987	733	89	364	100	19.69	49.9d	02/01	6.71	02/10	35.2	16.95	7.47
	1988	755	91										
	1988	767	93	285	78	15.40	52.5d	21/12	4.70	02/09	30.8	12.49	5.77
	1990	716	86										
044001 **Frome at East Stoke total** C.A: 414.4 km²	**55-85**	*963*		**511**		**6.72**	**24.1d**	**26/02 1966**	**0.95**	**27/08 1976**	**12.3**	**5.73**	**2.46**
M.A: NRA-W Level: m Local Number: 440011													
F.A.R: N B.F.I: .85 Sensitivity: 5.7	1986	1141	118	561	110	7.37	22.5d	08/01	2.11	08/10	13.9	6.48	2.28
Comment: Rectangular critical depth flume, 3.05m broad. Bounded by two broad-crested weirs. Complementary Crump profile weir on bypass channel, 3.565m broad. Low floodbank constructed on left hand bank to confine all flows within designed measuring range of flume - 21.5 m^3s^{-1}. Structure limit of weir 4.36 m^3s^{-1}. Flows prior to 1966 are for flume only. # Geology - Mainly Chalk; Upper Greensand and Gault, Lias and Oolites in headwaters; sands, gravels and clays in lower catchment.	1987	856	89	456	89	5.99	19.2d	04/04	2.03	18/08	10.4	5.71	2.15
	1988	899	93	434	85	5.68	21.4d	14/02	2.05	26/09	11.2	3.77	2.30
	1988	869	90	328	64	4.31	19.9d	20/12	1.34	06/09	8.3	3.24	1.47
	1990	834	87	386	76	5.07	23.6d	07/02	1.37	11/09	11.0	2.75	1.44
044002 **Piddle at Baggs Mill** C.A: 183.1 km²	**63-85**	**966**		**411**		**2.39**	**11.9**	**08/01 1968**	**0.36**	**23/08 1976**	**4.7**	**1.91**	**0.77**
M.A: NRA-W Level: 2m Local Number: 440002													
F.A.R: G B.F.I: .89 Sensitivity: 7.9	1986	1111	115	453	110	2.63	8.6	15/12	0.98	07/09	5.7	2.05	1.04
Comment: Rectangular critical depth 'humped' flume situated in left-hand bend of river. At high flow river goes out of bank upstream of station - estimates of flows made through arches of railway bridge. Complex water meadow system 2-3km upstream can result in minor short period fluctuations in the river flow. Minor groundwater abstractions in catchment. # Upper catchment - Chalk; lower - sands, gravels and clays. Predominantly agriculture.	1987	846	88											
	1988	885	92	397	97	2.30	8.5	01/02	0.76	19/09	5.0	1.32	0.86
	1988	864	89	270	66	1.57	8.6	20/12	0.56	04/10	3.2	1.16	0.58
	1990	824	85	371	90	2.16	10.0	07/02	0.53	18/09	5.1	1.15	0.58
044004 **Frome at Dorchester total** C.A: 206.0 km²	**71-85**	*1008*		**462**		**3.02**	**15.2d**	**28/12 1979**	**0.27**	**27/08 1976**	**5.9**	**2.43**	**0.84**
M.A: NRA-W Level: m Local Number: 440007													
F.A.R: G B.F.I: .84 Sensitivity: 15.1	1986	1201	119	592	128	3.87	12.7d	10/01	1.24	09/10	7.7	3.13	1.41
Comment: Two Crump profile weirs: crests 10.66m and 1.52m broad (on side channel). Rating for Louds Mill (main channel) includes side channel. Complementary Crump profile weir at Stinsford, crest 3.04m wide. Louds Mill modular limit 10 m^3s^{-1}; Stinsford 4.6 m^3s^{-1}. Stinsford may drown due to weed growth d/s. Minor groundwater abstractions in catchment. Flows exist prior to 10/71 for Louds Mill only. # Geology - predominantly Chalk with Upper Greensand and Gault, Lias and Oolites in headwaters. Land use - rural.	1987	896	89	462	100	3.02	10.1d	03/04	0.84	29/09	5.2	2.61	0.99
	1988	916	91	466	101	3.04	13.4d	14/02	1.04	20/09	6.0	1.96	1.16
	1988	901	89	342	74	2.23	9.1d	20/12	0.58	06/09	4.8	1.54	0.74
	1990	855	85	404	87	2.64	**16.7d**	**07/02**	0.62	07/08	6.2	1.47	0.65
044006 **Sydling Water at Sydling St Nicholas** C.A: 12.4 km²	**69-85**	**1048**		**465**		**0.18**	**1.6**	**30/05 1979**	**0.04**	**19/08 1975**	**0.4**	**0.14**	**0.06**
M.A: NRA-W Level: 110m Local Number: 440020													
F.A.R: N B.F.I: .87 Sensitivity: 25.0	1986	1285	123	570	123	0.22	0.9	19/05	0.08	07/10	0.4	0.19	0.08
Comment: Crump profile weir, crest 1.95m broad. Modular under all flow conditions. # Predominantly Lower Chalk with small outcrops of Middle and Upper Chalk forming higher ground flanking the catchment. Mainly pastoral with some arable agriculture on flatter ground.	1987	928	89	469	101	0.18	0.5d	07/04	0.07	14/09	0.3	0.16	0.08
	1988	948	90	444	95	0.17	0.6d	13/02	0.07	02/10	0.3	0.12	0.08
	1988	949	91	332	71	0.13	0.4	23/12	0.06	13/10	0.3	0.09	0.06
	1990	891	85	407	88	0.16	0.9	03/02	0.05	18/11	0.4	0.09	0.05
044009 **Wey at Broadwey** C.A: 7.0 km²	**75-85**	**898**		**1433**		**0.32**	**3.3**	**30/05 1979**	**0.06**	**04/11 1984**	**0.7**	**0.25**	**0.10**
M.A: NRA-W Level: 18m Local Number: 440005													
F.A.R: N B.F.I: .94 Sensitivity: 20.0	1986	1026	114	1575	110	0.35	1.5	09/01	0.12	25/09	0.7	0.30	0.13
Comment: Flat V Crump profile weir, crest 4.5m broad. Full range station. Structure capacity 3.3 m^3s^{-1}. Some hatch activity upstream, but this does not affect daily mean flow. Runoff figures suggest topographical and hydrological catchment areas do not coincide. # Predominantly a limestone catchment. Land use - mainly pastoral.	1987	798	89	1463	102	0.32	1.2	03/04	0.09	01/10	0.7	0.25	0.11
	1988	871	97										
	1988	781	87	845	59	0.19	2.4	20/12	**0.06**	**08/10**	0.4	0.13	0.07
	1990	769	86	1166	81	0.26	1.8	03/02	0.06	10/11	0.7	0.14	0.06
051001 **Doniford Stream at Swill Bridge** C.A: 75.8 km²	**67..85**	*921*		**427**		**1.03**	**62.3**	**27/12 1979**	**0.08**	**27/08 1976**	**2.4**	**0.61**	**0.20**
M.A: NRA-W Level: 9m Local Number: 510001													
F.A.R: N B.F.I: .64 Sensitivity: 18.0	1986	993	108	404	95	0.97	6.2	01/01	0.23	16/10	2.1	0.69	0.27
Comment: Flat V weir. Prior to 1982 velocity-area station with rock control. High flows measured from bridge downstream. # Drains Devonian/Triassic sandstones between Quantock and Brendon Hills. Land use rural.	1987	806	88	337	79	0.81	11.3	03/04	0.16	28/09	1.5	0.77	0.19
	1988	871	95	383	90	0.92	10.0	31/01	0.27	25/08	1.9	0.53	0.31
	1988	905	98	311	73	0.75	10.5	20/12	0.15	09/09	1.7	0.44	0.16
	1990	830	90	353	83	0.85	14.2	01/02	0.13	17/09	2.1	0.30	0.14
051002 **Horner Water at West Luccombe** C.A: 20.8 km²	73..85			631		0.42	7.9	01/12 1975	0.02	23/08 1976	0.9	0.26	0.04
M.A: NRA-W Level: 61m Local Number: 510002													
F.A.R: S B.F.I: .61 Sensitivity: 57.5	1986	1649		848	134	0.56	10.0	18/11	0.10	27/07	1.2	0.38	0.11
Comment: Triangular profile Crump weir for low flows, crest 4.5m broad, plus rated section. All flows contained. Station closed from 09.1979 to 04.1985, reopened due to installation of telemetry. Nutscale reservoir in headwaters # Drains Exmoor. Steep catchment. Land use rural. Deciduous woodland on valley sides. Geology - composed of Mid Devonian Grits and Lower Devonian Old Red Sandstone.	1987	1243		620	98	0.41	7.0	26/03	0.06	29/08	0.9	0.32	0.06
	1988	1485		756	120	0.50	9.6	08/11	0.15	24/06	1.2	0.30	0.17
	1988	1483		636	101	0.42	5.3	14/03	0.06	19/07	1.2	0.23	0.06
	1990	1529		651	103	0.43	7.5	07/02	0.05	28/09	1.1	0.15	0.06
051003 **Washford at Beggearn Huish** C.A: 36.3 km²	**66..85**			**605**		**0.70**	**9.7**	**26/12 1985**	**0.02**	**26/10 1978**	**1.5**	**0.49**	**0.12**
M.A: NRA-W Level: m Local Number: 510003													
F.A.R: N B.F.I: .63 Sensitivity: 18.6	1986	1279		878	145	1.01	6.1	19/11	0.16	16/08	2.3	0.70	0.19
Comment: Flat V fibreglass weir, crest 4.5m width, installed in 1982. Velocity-area station for Washford, Williton and Watchet. Out of bank flow before bankfull at station. Fish farm and mill upstream does not affect daily mean flow. Station closed from 07.1980 to 06.1983 # Drains Brendon Hills, relief is steep with many deeply incised valleys. Geology - Devonian Slates, Siltstones and Sandstones. Land use predominantly rural. Coniferous woodland on valley sides	1987	997		662	109	0.76	4.5	04/04	0.11	29/09	1.8	0.60	0.12
	1988	1110		787	130	0.90	5.7	31/01	0.24	17/08	2.1	0.49	0.26
	1988	1085		653	108	0.75	5.3	21/12	0.09	07/09	2.1	0.37	0.10
	1990	1000		637	105	0.73	6.1	11/02	0.08	17/09	2.0	0.27	0.09

	Period	Rainfall (mm)	% of pre-1986	Runoff (mm)	% of pre-1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
052003 Halse Water at Bishops Hull C.A: 87.8 km²	**61..85**	**872**		**398**		**1.11**	**42.0**	**27/12 1979**	**0.13**	**23/08 1976**	**2.2**	**0.75**	**0.30**
M.A: NRA-W Level: 16m Local Number: 520003													
F.A.R: N B.F.I: .74 Sensitivity: 12.6	1986	918	105	370	93	1.03	7.3	07/01	0.29	16/10	2.2	0.79	0.31
Comment: Flat V weir, 0.5km upstream of confluence with River Tone. Velocity-area station prior to July 1981. Flows in excess of 7 m^3s^{-1} result in out of bank flow approx. 180m upstream of station and bypassing occurs. At stages above 18.7m AOD flows are affected by backwater from the River Tone. # Catchment - mixed geology: predominantly Jurassic Limestone, sandstones and marl. Land use predominantly rural.	1987	754	86	334	84	0.93	9.3	03/04	0.20	23/08	1.6	0.82	0.27
	1988	830	95	360	90	1.00	8.6	31/01	0.34	24/06	2.1	0.58	0.36
	1988	852	98	291	73	0.81	8.7	25/02	0.20	02/09	1.7	0.51	0.23
	1990	774	89	338	85	0.94	9.3	03/02	0.18	15/09	2.3	0.37	0.20
052004 Isle at Ashford Mill C.A: 90.1 km²	**62-85**	**891**		**456**		**1.30**	**28.9**	**20/12 1981**	**0.09**	**28/06 1964**	**2.8**	**0.69**	**0.26**
M.A: NRA-W Level: 15m Local Number: 520004													
F.A.R: GE B.F.I: .48 Sensitivity: 22.5	1986	998	112	571	125	1.63	24.9	28/01	0.31	21/07	3.6	0.80	0.34
Comment: Crump profile weir for low flows, crest 6.71m broad. Modular limit of 0.6m. Velocity-area station for higher flows (downstream weed growth affects the stability of the stage-discharge relationship). Flood plain storage in catchment. Bankfull: 2.438m. Bypassing of station occurs at high flows. Minor groundwater abstractions in catchment. Evidence of mill/factory discharges on charts. # Impermeable catchment - predominantly Lower Lias clays. Very responsive. Land use - rural.	1987	748	84	405	89	1.16	25.1	03/04	0.27	28/08	2.3	0.79	0.33
	1988	784	88	405	89	1.15	24.0	31/01	0.31	25/06	2.8	0.61	0.36
	1988	883	99	441	97	1.26	28.8	20/12	0.21	05/09	2.3	0.54	0.25
	1990	758	85	433	95	1.24	26.6	01/02	0.23	16/09	2.6	0.47	0.27
052005 Tone at Bishops Hull C.A: 202.0 km²	**61-85**	**981**		**481**		**3.08**	**112.7**	**11/07 1968**	**0.18**	**22/08 1976**	**6.7**	**1.80**	**0.64**
M.A: NRA-W Level: 16m Local Number: 520005													
F.A.R: SP B.F.I: .58 Sensitivity: 17.7	1986	1051	107	496	103	3.18	47.8	07/01	0.70	16/08	7.2	2.12	0.79
Comment: Pre 3/68 velocity-area station; flows unreliable below 1.42 m^3s^{-1}. Now Crump profile weir (breadth 12.2m) with crest tapping (not operational). Full range station. Clatworthy and smaller Luxhay Reservoir in headwaters. Compensation flow maintains low flows. Reservoirs not large enough to influence fairly rapid response to rainfall. Minor surface water abstractions for PWS. # Catchment geology - predominantly sandstones and marls. Land use - rural.	1987	860	88	420	87	2.69	75.4	03/04	0.61	23/08	4.8	2.14	0.64
	1988	968	99	482	100	3.08	67.5	31/01	0.70	24/06	6.6	1.74	0.91
	1988	955	97	386	80	2.47	67.4	20/12	0.43	09/09	5.5	1.33	0.47
	1990	908	93	412	86	2.64	83.3	27/01	0.36	06/08	5.9	0.98	0.43
052006 Yeo at Pen Mill C.A: 213.1 km²	**63-85**	**892**		**374**		**2.53**	**138.9**	**27/12 1979**	**0.05**	**06/11 1971**	**6.4**	**1.11**	**0.34**
M.A: NRA-W Level: 24m Local Number: 520006													
F.A.R: SPG B.F.I: .40 Sensitivity: 14.1	1986	1013	114	437	117	2.95	36.8	18/11	0.40	07/10	7.8	1.42	0.43
Comment: Crump type triangular cross-section weir for low flows. >1.55 m^3s^{-1} measured by rated river section (affected by d/s weed growth). Flows >2m inaccurate. All but highest floods contained. 1989 station moved slightly - problems with stilling well, needs rerating. Sutton Bingham Res. in headwaters. Medium/low flows influenced by variable abstractions and compensation. # Geology - Oxford Clay and Great Oolite in upper catchment; Yeovil Sands and Inferior Oolite in lower catchment. Land use - predominantly rural.	1987	754	85	289	77	1.95	40.0	27/03	0.30	24/08	4.5	1.22	0.39
	1988	817	92	291	78	1.96	61.1	13/02	0.38	17/08	5.0	0.85	0.42
	1988	881	99	310	83	2.09	43.7	24/02	0.21	06/08	4.4	0.73	0.24
	1990	777	87	307	82	2.07	69.6	01/02	0.23	22/08	5.0	0.49	0.25
052007 Parrett at Chiselborough C.A: 74.8 km²	**66-85**	**924**		**474**		**1.13**	**57.2**	**30/05 1979**	**0.06**	**23/08 1976**	**2.2**	**0.53**	**0.19**
M.A: NRA-W Level: 21m Local Number: 520007													
F.A.R: E B.F.I: .45 Sensitivity: 29.5	1986	1029	111	615	130	1.46	27.4	28/01	0.25	24/07	2.9	0.62	0.28
Comment: Crump weir (breadth: 7.87m) with crest tapping, situated in bridge invert. Full range station. Throttling of high flows in high range, flow hydrograph exhibits hysteresis. Weir drowning more frequent prior to downstream channel improvements in 1966. Flows calculated from crest tapping prior to 1/4/67 are erroneous due to leak in float well. Minor augmentation from effluent returns. # Geology - predominantly Oxford Clay with small band of Upper Greensand and Gault in headwaters. Land use - rural.	1987	757	82	396	84	0.94	17.9	03/04	0.26	21/08	1.8	0.60	0.26
	1988	836	90	410	86	0.97	22.8	31/01	0.23	17/08	2.1	0.41	0.26
	1988	922	100	454	96	1.08	32.8	20/12	0.16	31/08	1.8	0.35	0.17
	1990	756	82	447	94	1.06	30.7	03/02	0.14	16/09	2.1	0.25	0.15
052009 Sheppey at Fenny Castle C.A: 59.6 km²	**64..85**	**965**		**569**		**1.07**	**9.6**	**17/12 1965**	**0.10**	**13/09 1964**	**2.2**	**0.82**	**0.26**
M.A: NRA-W Level: 6m Local Number: 520009													
F.A.R: GE B.F.I: .68 Sensitivity: 18.8	1986	1049	109										
Comment: Crump profile weir for low flows, crest 5.18m broad. Velocity-area station for flows greater than 1.84 m^3s^{-1} (downstream summer weed growth affects the stability of the stage-discharge relationship). Full range station. Banks adequately contain all flows at site. Minor groundwater abstractions in catchment. Some augmentation from effluent returns. # Mixed geology: Upper catchment - Carboniferous Limestone, Lower catchment - sandstones. Land use - rural.	1987	812	84	536	94	1.01	7.6	31/05	0.34	27/09	1.8	0.87	0.36
	1988	912	95	556	98	1.05	7.9	09/10	0.30	23/06	2.1	0.74	0.38
	1988	896	93	505	89	0.95	7.8	25/02	0.21	15/10	2.2	0.63	0.24
	1990	869	90	465	82	0.88	8.2	03/02	0.18	15/09	2.1	0.56	0.21
052010 Brue at Lovington C.A: 135.2 km²	**64-85**	**895**		**442**		**1.89**	**95.5**	**30/05 1979**	**0.06**	**01/10 1964**	**4.4**	**1.02**	**0.26**
M.A: NRA-W Level: 20m Local Number: 520010													
F.A.R: N B.F.I: .47 Sensitivity: 21.9	1986	946	106	483	109	2.07	44.0	28/01	0.27	16/08	4.7	1.18	0.32
Comment: Crump profile weir for low flows, crest 6.71m broad. Velocity-area station for flows >2.2 m^3s^{-1}, (d/s summer weed growth affects the stability of the stage-discharge relationship). Reliable extension of rating to bankfull. Channel section is deep and contains all but very exceptional floods. # Headwaters fed by Mendip and Salisbury Plain springs. Geology - Oxford Clay and Great Oolite in upper catchment; Yeovil Sands and Inferior Oolite in lower catchment. Very pronounced hydrograph peaks. Land use - predominantly rural.	1987	754	84	337	76	1.45	24.0	09/04	0.20	04/07	3.3	0.89	0.25
	1988	871	97	441	100	1.88	61.1	09/10	0.30	24/06	4.6	0.87	0.38
	1988	836	93	361	82	1.55	61.1	20/12	0.18	02/09	3.5	0.59	0.20
	1990	806	90	337	76	1.45	53.6	03/02	0.16	16/09	3.8	0.47	0.19
052011 Cary at Somerton C.A: 82.4 km²	**65-85**	**746**		**311**		**0.81**	**13.7**	**31/05 1979**	**0.00**	**27/08 1976**	**2.1**	**0.27**	**0.05**
M.A: NRA-W Level: 9m Local Number: 520011													
F.A.R: GE B.F.I: .37 Sensitivity: 38.0	1986	794	106	312	100	0.82	9.9	29/01	0.05	09/08	2.2	0.30	0.06
Comment: Compound Crump profile weir, approx. 330m upstream of Cary Bridge. Centre section 3.05m broad, two side sections 1.22m broad. Velocity-area station for flows greater than 4.4 m^3s^{-1} (downstream summer weed growth affects the stability of stage-discharge relationship). Full range station. Banks contain all but exceptional floods. Minor groundwater abstractions and some augmentation from effluent returns. # Geology - predominantly Lower Lias and Oolitic Limestone. Land use - rural.	1987	610	82	211	68	0.55	7.7	01/01	0.03	18/08	1.3	0.27	0.04
	1988	683	92	254	82	0.66	8.3	01/02	0.04	25/06	1.8	0.20	0.07
	1988	682	91	238	77	0.62	12.3	21/12	0.03	05/09	1.3	0.14	0.04
	1990	640	86	224	72	0.59	11.8	03/02	0.02	24/07	1.3	0.08	0.02
052014 Tone at Greenham C.A: 57.2 km²	**67..85**	*1097*		**611**		**1.11**	**37.5**	**09/02 1974**	**0.01**	**30/10 1975**	**2.4**	**0.71**	**0.18**
M.A: NRA-W Level: 77m Local Number: 520014													
F.A.R: S B.F.I: .59 Sensitivity: 12.1	1986	1202	110	551	90	1.00	9.7	09/01	0.13	16/08	2.4	0.60	0.17
Comment: Compound Flat V Crump profile weir. Prior to August 1979 velocity-area station with unstable bed. At high flows estimates made from debris marks as surrounding land floods. Since 1981 flows above 9.66 m^3s^{-1} are truncated. Low flows maintained from Clatworthy Reservoir. Abstractions for supply. # The upper part of the catchment drains the Brendon Hills. Geology - predominantly Old Red Sandstone. Land use - rural.	1987	998	91	403	66	0.73	6.7	26/03	0.11	22/08	1.5	0.58	0.12
	1988	1109	101	523	86	0.95	10.9	31/01	0.17	25/06	2.2	0.55	0.24
	1988	1029	94	400	65	0.73	8.5	14/03	0.10	09/09	1.9	0.40	0.11
	1990	1016	93	405	66	0.74	8.9	11/02	0.09	17/09	1.8	0.25	0.11
052015 Land Yeo at Wraxall Bridge C.A: 23.3 km²	**71..85**	*885*		**325**		**0.24**	**5.1**	**27/09 1974**	**0.00**	**07/09 1976**	**0.5**	**0.16**	**0.05**
M.A: NRA-W Level: 11m Local Number: 520015													
F.A.R: B.F.I: .71 Sensitivity: 52.0	1986	996	113	404	124	0.30	2.6	28/01	0.06	11/09	0.6	0.21	0.07
Comment: Triangular profile Crump weir, crest 5.0m width. All flows contained. Closed from 09.1979 to 05.1985. Reopened after installation of telemetry. River weedy but weir cleared regularly. Barrow Gurney reservoirs in catchment (approx 0.75km²) # Drains Dundry Hill. Moderate relief in headwaters, low relief in lower reaches. Mixed geology of lower and middle Coal Measures, Carboniferous oolitic limestone and Triassic marls and sandstones. Land use predominantly rural, some urbanisation.	1987	856	97	349	107	0.26	**12.4**	**30/11**	0.05	15/09	0.5	0.24	0.06
	1988	935	106	359	110	0.26	12.4	04/05	0.07	17/08	0.6	0.16	0.09
	1988	881	100	311	96	0.23	2.7	25/02	0.04	16/10	0.6	0.13	0.07
	1990	784	89	251	77	0.19	1.9	01/02	0.04	27/09	0.5	0.08	0.05

	Period	Rainfall (mm)	% of pre-1986	Runoff (mm)	% of pre-1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
052016 Currypool Stream at Currypool Farm C.A: 15.7 km²	**71-85**	*929*		**430**		**0.21**	**7.9**	**01/12 1976**	**0.02**	**22/09 1975**	**0.4**	**0.14**	**0.06**
M.A: NRA-W Level: 49m Local Number: 520016													
F.A.R: N B.F.I: .71 Sensitivity: 45.0	1986	1026	110	443	103	0.22	1.6	07/01	0.07	16/10	0.4	0.17	0.08
Comment: Crump profile weir, crest 4m broad. Velocity-area station for flows > 1.654 m^3s^{-1}. # Headwaters drain the Quantock Hills. Geology - predominanty Old Red Sandstone and Marl. Land use - agricultural.	1987	782	84	340	79	0.17	1.8	26/03	0.05	01/10	0.3	0.15	0.06
	1988	851	92	351	82	0.17	1.6	31/01	0.07	02/10	0.4	0.11	0.08
	1988	840	90	318	74	0.16	2.0	18/12	0.05	02/09	0.3	0.10	0.06
	1990	765	82	326	76	0.16	2.5	27/01	0.04	13/09	0.4	0.08	0.05
052017 Congresbury Yeo at Iwood C.A: 66.6 km²	73..85	*762*					15.4	28/01 1975	0.19	12/09 1973			
M.A: NRA-W Level: 7m Local Number: 520017													
F.A.R: B.F.I: .59 Sensitivity: 18.5	1986			385		0.81	7.6	10/01	0.24	16/10	1.8	0.57	0.26
Comment: Triangular profile Crump weir, crest 5.0m broad. Bankfull 1.3m. Station bypassed at high flows. Station closed between 02.1975 and 08.1985 - reopened after installation of telemetry. Very patchy record prior to 1975. Flood warning station for Congresbury approx. 1km downstream. Blagdon reservoir (approx 2km²) situated close to headwaters. # The river rises from the western slopes of the Mendips. Land use; predominantly rural with some small settlements. Geology Carboniferous Limestone, Keuper Marl and estuarine alluvium.	1987			317		0.67	7.7	30/03	0.22	27/09	1.3	0.54	0.24
	1988			392		0.82	7.1	20/08	0.37	28/12	1.5	0.61	0.41
	1988			289		0.61	7.6	25/02	0.14	17/10	1.4	0.39	0.17
	1990			237		0.50	5.8	01/02	0.15	14/10	1.0	0.30	0.19
053002 Semington Brook at Semington C.A: 157.7 km²	**53-85**	*749*		**272**		**1.36**	**50.0**	**27/12 1979**	**0.06**	**03/08 1976**	**2.7**	**0.82**	**0.26**
M.A: NRA-W Level: 33m Local Number: 90020													
F.A.R: GE B.F.I: .57 Sensitivity: 21.2	1986	818	109	351	129	1.76			0.28	12/10	3.4	1.07	0.51
Comment: Formalised trapezoidal section with cableway, replaced velocity-area station downstream (superseded due to low banks and backwater from River Avon at high flows). Flood records for period prior to April 1970 are therefore poor. Station rated up to 19.83 m^3s^{-1}. Some groundwater pumping and surface water abstractions. Mill operation upstream. # Catchment flat and low lying, mainly clay with steeper Chalk eastern boundaries. Land use - predominantly rural.	1987	681	91	277	102	1.38			0.46	17/08	2.1	0.98	0.54
	1988	693	93	264	97	1.32			0.44	09/11	2.3	0.78	0.54
	1988	679	91	251	92	1.26			0.40	09/09	1.9	0.74	0.45
	1990	632	84	302	111	1.51			0.41	09/08	2.5	0.67	0.47
053004 Chew at Compton Dando C.A: 129.5 km²	**58..85**	**1013**		**256**		**1.05**	**67.5**	**30/05 1979**	**0.14**	**03/08 1962**	**2.1**	**0.66**	**0.31**
M.A: NRA-W Level: 17m Local Number: 140030													
F.A.R: SP B.F.I: .63 Sensitivity: 4.8	1986	1117	110	328	128	1.35	39.4	28/01	0.35	05/09	2.7	0.87	0.44
Comment: Trapezoidal critical depth flume. Full range station. Flow record unreliable for appox. one year after the July 1968 flood due to bank collapse and accumulated debris. Large storage reservoir in headwaters - Chew Valley Lake. Seasonal compensation flow. Significant surface water abstractions for public supply and industry. Monthly naturalised flow series available to 1980. # Mixed geology - predominantly clay, some Coal Measures. Land use - rural.	1987	825	81	262	102	1.08	19.9	26/03	0.37	08/07	2.1	0.82	0.40
	1988	1036	102	265	104	1.08	18.2	31/01	0.38	25/06	2.2	0.72	0.42
	1988	955	94	243	95	1.00	32.8	20/12	0.31	06/09	2.0	0.54	0.35
	1990	877	87	201	79	0.82	16.8	03/02	0.30	21/10	1.8	0.43	0.32
053005 Midford Brook at Midford C.A: 147.4 km²	**61-85**	**984**		**466**		**2.18**	**55.7**	**10/07 1968**	**0.16**	**19/08 1976**	**4.8**	**1.44**	**0.40**
M.A: NRA-W Level: 27m Local Number: 130010													
F.A.R: PGE B.F.I: .62 Sensitivity: 4.9	1986	1111	113	625	134	2.92	33.7	28/01	0.50	17/10	6.6	2.03	0.63
Comment: Trapezoidal critical depth flume 2.4km upstream of confluence with River Avon. Full range station. Algal growth effects sensitivity at low flows. Bypassing may occur on left-hand bank above 3m stage. # Predominantly impermeable catchment - Lias with Coal Measures. Deep steep sided valleys in catchment, responds rapidly to rainfall. Land use - rural.	1987	805	82	389	83	1.82	16.2	11/11	0.36	31/08	3.7	1.45	0.44
	1988	1002	102	538	115	2.51	25.6	31/01	0.62	22/06	5.5	1.62	0.79
	1988	932	95	459	98	2.14	31.3	20/12	0.37	16/10	4.9	1.20	0.41
	1990	859	87	391	84	1.83	28.9	03/02	0.34	06/08	4.3	0.79	0.36
053006 Frome(Bristol) at Frenchay C.A: 148.9 km²	**61-85**	*801*		**361**		**1.70**	**70.8**	**10/07 1968**	**0.07**	**10/08 1976**	**4.1**	**0.78**	**0.20**
M.A: NRA-W Level: 20m Local Number: 20005													
F.A.R: N B.F.I: .40 Sensitivity:	1986	856	107	421	117	1.99	35.1	28/01	0.17	16/10	4.8	0.99	0.23
Comment: Trapezoidal critical depth flume. Full range station. Flume designed on basis of pre-urbanisation flow estimates - site swamped in storms of 1965 and 1968. Extra retaining walls have been installed. # Complex geology; eastern and central catchment dominated by sandstones of the Coal Measures and Keuper Marl. The west is less permeable; Keuper Marl and Liassic clays. Superficial deposits are meltwater gravels and terraces, mainly in the west.	1987	784	98	356	99	1.68	24.7	04/04	0.15	16/08	4.0	0.82	0.18
	1988	810	101	326	90	1.54	19.1	24/01	0.21	17/08	3.8	0.70	0.26
	1988	804	100	325	90	1.54	20.2	25/02	0.13	08/08	3.9	0.55	0.15
	1990	678	85	238	66	1.13	21.6	01/02	0.10	16/09	2.5	0.35	0.13
053007 Frome(Somerset) at Tellisford C.A: 261.6 km²	**61-85**	*964*		**454**		**3.77**	**108.1**	**10/07 1968**	**0.20**	**27/08 1976**	**8.4**	**2.25**	**0.65**
M.A: NRA-W Level: 35m Local Number: 110015													
F.A.R: PG B.F.I: .52 Sensitivity: 4.8	1986	1095	114	572	126	4.74	72.1	29/01	0.70	24/07	11.1	2.82	0.78
Comment: Trapezoidal critical depth flume. Full range station. Deeply incised channel at station - all but extreme floods contained (although some overbank upstream storage). Pumping station upstream of gauging station. Substantial groundwater abstractions in catchment. Responsive catchment, however, retention lakes 5 to 6km upstream may truncate peaks. # Predominantly limestone with impermeable clays in Frome Gap and Coal Measures in Mells Valley. Land use - predominantly rural.	1987	852	88	396	87	3.28	35.9	01/01	0.60	21/08	7.5	2.24	0.65
	1988	976	101	463	102	3.83	59.9	09/10	0.66	23/06	9.5	2.07	0.89
	1988	924	96	403	89	3.34	81.9	20/12	0.46	30/08	8.1	1.44	0.48
	1990	873	91	347	76	2.88	53.9	03/02	0.41	28/09	6.8	1.14	0.47
053008 Avon at Great Somerford C.A: 303.0 km²	**64-85**	**831**		**346**		**3.32**	**107.7**	**11/07 1968**	**0.11**	**08/09 1976**	**8.0**	**1.91**	**0.36**
M.A: NRA-W Level: 58m Local Number: 10355													
F.A.R: G B.F.I: .58 Sensitivity:	1986	901	108	441	127	4.24	52.9	29/01	0.35	17/10	10.3	2.54	0.44
Comment: Compound Crump profile weir - low flow crest between two flanking sections. Situated 90m downstream of Great Somerford road bridge. Full range station. All except extreme flows (eg. July 1968) contained. Flows augmented by groundwater scheme in catchment. # Geology - mainly Oolitic Limestone with left bank tributaries draining off clays. Land use - predominantly rural.	1987	757	91	323	93	3.10	31.7	27/03	0.26	12/09	7.0	2.52	0.32
	1988	796	96	346	100	3.31	31.9	31/01	0.38	24/06	8.9	1.64	0.52
	1988	808	97	322	93	3.09	44.2	20/12	0.27	07/09	7.9	1.33	0.30
	1990	658	79	231	67	2.22	35.8	08/02	0.20	23/10	6.2	0.46	0.22
053009 Wellow Brook at Wellow C.A: 72.6 km²	**66-85**	**1024**		**555**		**1.28**	**29.5**	**10/07 1968**	**0.09**	**26/08 1976**	**2.8**	**0.88**	**0.24**
M.A: NRA-W Level: 44m Local Number: 130130													
F.A.R: N B.F.I: 62 Sensitivity: 6.7	1986	1166	114	704	127	1.62	14.3	19/05	0.24	16/10	3.8	1.14	0.31
Comment: Trapezoidal critical depth flume. Full range station. Slight bypassing on right-hand bank. Backing up from bridge downstream occurred during July 1968 flood (flow of 30 m^3s^{-1}). MAF gauged adequately; # Mixed geology - Lias and Oolitic Limestone. Land use - predominantly rural.	1987	821	80	444	80	1.02	6.3	11/11	0.22	21/08	2.1	0.84	0.24
	1988	1040	102	596	107	1.37	12.2	31/01	0.31	25/06	3.1	0.93	0.40
	1988	969	95	513	92	1.18	15.6	20/12	0.18	18/10	2.9	0.65	0.21
	1990	903	88	434	78	1.00	12.5	03/02	0.16	22/10	2.4	0.49	0.19
053013 Marden at Stanley C.A: 99.2 km²	**70-85**	**767**		**385**		**1.21**	**40.1**	**20/01 1985**	**0.10**	**26/08 1976**	**2.5**	**0.80**	**0.26**
M.A: NRA-W Level: 47m Local Number: 80010													
F.A.R: PE B.F.I: .64 Sensitivity: 5.6	1986	839	109	461	120	1.45	15.6	29/01	0.33	11/10	3.1	1.08	0.37
Comment: Trapezoidal critical depth flume. Full range station. Prior to July 1969 level only station. Bridge 100 - 150m upstream causes throttling at high flows. Minor surface water abstractions and discharges in catchment. # Predominantly clay catchment, Chalk outcrop in headwaters. Land use - rural.	1987	713	93	361	94	1.14	19.9	27/02	0.21	27/09	2.2	0.96	0.26
	1988	740	96	366	95	1.15	15.1	18/10	0.27	10/08	2.6	0.70	0.31
	1988	720	94	301	78	0.95	17.2	20/12	0.19	04/10	2.1	0.54	0.22
	1990	617	80	276	72	0.87	21.9	03/02	0.17	08/09	1.9	0.37	0.19
053017 Boyd at Bitton C.A: 48.0 km²	**73-85**	**802**		**373**		**0.57**	**27.2**	**30/05 1979**	**0.01**	**28/08 1976**	**1.4**	**0.29**	**0.05**
M.A: NRA-W Level: 16m Local Number: 30100													
F.A.R: N B.F.I: .46 Sensitivity: 25.0	1986	887	111	415	111	0.63	17.2	28/01	0.06	12/10	1.6	0.32	0.08
Comment: Flat V Crump profile weir, crest 8m broad. Situated in rectangular sheet-piled section; 4m deep. Full range station. Access for maintenance difficult. # Predominantly clay catchment. Land use - mainly rural with some urbanisation.	1987	772	96	390	105	0.59	12.3	04/04	0.07	22/09	1.3	0.39	0.08
	1988	834	104	401	108	0.61	9.7	01/02	0.08	16/08	1.5	0.29	0.11
	1988	784	98	331	89	0.50	19.0	25/02	0.04	11/09	1.2	0.19	0.05
	1990	675	84	237	64	0.36	8.8	03/02	0.03	08/09	1.0	0.10	0.04

		Period	Rainfall (mm)	% of pre-1986	Runoff (mm)	% of pre-1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
053018	**Avon at Bathford** C.A: 1552.0 km^2	**69-85**	*843*		**351**		**17.27**	**300.5**	**28/12 1979**	**1.09**	**29/08 1976**	**36.3**	**11.35**	**3.48**
M.A: NRA-W	Level: 18m Local Number: 10250													
F.A.R: RPGE	B.F.I: .61 Sensitivity: 9.8	1986	931	110	395	113	19.44	191.9	29/01	2.80	09/08	45.0	12.16	3.27
Comment: Velocity-area station with cableway. (Replacement station for Bath St James). Upstream of the city of Bath. Situated immediately downstream of confluence with Bybrook. Section by railway bridge; area widely inundated in flood conditions, but all flows contained through bridge. Flows below 5 m^3s^{-1} are inaccurate. Flows augmented by groundwater scheme in catchment. # Mixed geology - predominantly clays and limestone with eastern tributaries rising from Chalk. Land use - mainly rural, some urbanisation.		1987	758	90	291	83	14.31	100.8	12/11	1.76	10/08	29.6	11.61	2.47
		1988	824	98	328	93	16.10	137.3	02/02	2.06	09/08	39.3	9.55	3.45
		1988	802	95	302	86	14.85	233.9	21/12	2.25	04/10	36.0	7.70	2.67
		1990	705	84	276	79	13.56	209.8	03/02	1.59	27/09	28.5	5.70	2.51
053019	**Woodbridge Brook at Crab Mill** C.A: 46.6 km^2	**69-85**	*782*		**369**		**0.55**			**0.00**	**23/09 1976**	**1.1**	**0.21**	**0.02**
M.A: NRA-W	Level: 66m Local Number: 10450													
F.A.R: G	B.F.I: .34 Sensitivity: 31.0	1986	813	104	456	124	0.67			0.04	06/10	1.5	0.27	0.05
Comment: Compound rectangular thin-plate weir (no divide piers). 1.52m wide centre section and two 0.76m broad wings. Principally a low flow station. Measuring capacity of weir is 1.4 m^3s^{-1}, above this the rating is only usable to estimate flows. Substantial groundwater abstractions in catchment. # Impermeable clay catchment. Land use - predominantly rural.		1987	714	91	300	81	0.44			0.04	01/09	0.8	0.26	0.04
		1988	726	93	362	98	0.53			0.07	29/08	1.1	0.22	0.09
		1988	733	94	398	108	0.59			0.01	02/10	0.9	0.16	0.04
		1990	591	76	250	68	0.37			0.01	09/11	0.6	0.07	0.02
053020	**Gauze Brook at Rodbourne** C.A: 28.2 km^2	**68-85**	*815*		**321**		**0.29**	**6.8**	**04/02 1972**	**0.00**	**18/08 1976**	**0.7**	**0.15**	**0.02**
M.A: NRA-W	Level: 66m Local Number: 10420													
F.A.R: G	B.F.I: .53 Sensitivity: 31.0	1986			368	115	0.33	**7.2**	**28/01**	0.01	07/08	0.8	0.16	0.02
Comment: Rectangular thin-plate weir. Measuring capacity of weir 0.566 m^3s^{-1}. Primarily a low flow station; monitors the impact of groundwater abstraction/recharge on river flow. Discharges which exceed 0.57 m^3s^{-1} are estimates only. # Predominantly limestone catchment. Land use - rural.		1987			267	83	0.24	2.8	26/03	0.02	13/07	0.6	0.16	0.02
		1988			282	88	0.25	2.7	03/01	0.01	17/08	0.7	0.11	0.02
		1988			277	86	0.25	6.1	20/12	0.01	18/07	0.7	0.07	0.02
		1990			196	61	0.18	3.1	03/02	0.02	22/05	0.5	0.03	0.02
053023	**Sherston Avon at Fosseway** C.A: 89.7 km^2	**76..85**	**874**		**356**		**1.01**	**11.6**	**30/05 1979**	**0.02**	**28/11 1978**	**2.4**	**0.68**	**0.12**
M.A: NRA-W	Level: 75m Local Number: 50100													
F.A.R: G	B.F.I: .67 Sensitivity: 20.0	1986	953	109	414	116	1.18	9.7	28/01	0.09	16/10	2.9	0.78	0.12
Comment: Flat V Crump profile weir, crest 7.0m broad. Full range station. Flows augmented by groundwater scheme in catchment. Gate activity upstream may affect flows. # Geology - predominantly Oolitic Limestone. Land use - rural.		1987	791	91	316	89	0.90	4.8	07/04	0.08	10/09	2.2	0.79	0.10
		1988	851	97	325	91	0.92	6.1	01/02	0.14	30/06	2.3	0.54	0.16
		1988	849	97	299	84	0.85	8.0	20/12	0.10	28/07	2.1	0.39	0.11
		1990	712	81	217	61	0.62	7.5	07/02	0.08	14/10	1.7	0.15	0.09
053024	**Tetbury Avon at Brokenborough** C.A: 73.6 km^2	**78-85**	**873**		**334**		**0.78**	**6.4**	**01/06 1981**	**0.04**	**12/09 1981**	**2.0**	**0.45**	**0.06**
M.A: NRA-W	Level: 75m Local Number: 60050													
F.A.R: GE	B.F.I: .66 Sensitivity: 25.0	1986	946	108	370	111	0.86			0.06	26/09	2.4	0.51	0.07
Comment: Flat V Crump profile weir, crest 7.0m. Low flow station. Rating not extended above the measuring capacity of the weir (5.3 cumec) and peaks on the hydrograph are truncated. Groundwater abstractions in catchment. Some augmentation from effluent returns. # Geology - predominantly Oolitic Limestone. Land use - rural.		1987	786	90	257	77	0.60			0.05	16/06	1.6	0.54	0.07
		1988	788	90	269	81	0.62			0.07	22/06	1.8	0.27	0.09
		1988	831	95	257	77	0.60			0.05	17/10	1.5	0.27	0.06
		1990	680	78	220	66	0.51			**0.03**	**22/10**	1.4	0.08	0.03
053025	**Mells at Vallis** C.A: 119.0 km^2	**80–85**	**1110**		**445**		**1.68**	**33.2**	**31/01 1983**	**0.11**	**30/08 1984**	**3.7**	**1.17**	**0.21**
M.A: NRA-W	Level: 70m Local Number: 120050													
F.A.R: E	B.F.I: .59 Sensitivity: 21.3	1986	1199	108	530	119	2.00	23.7	28/01	0.23	17/10	4.5	1.37	0.29
Comment: Crump profile weir, crest 6.0m broad. Full range station. Minor augmentation from effluent returns. # Geology - predominantly Carboniferous Limestone with Coal Measures. Land use - rural.		1987	917	83	359	81	1.36	13.9	01/01	0.17	15/09	3.0	1.03	0.20
		1988	1086	98	433	97	1.63	22.5	09/10	0.26	22/06	3.8	0.93	0.34
		1988	1006	91	350	79	1.32	25.9	20/12	0.11	29/08	3.5	0.50	0.13
		1990	975	88	333	75	1.26	19.1	03/02	0.11	27/09	3.7	0.46	0.15
053026	**Frome(Bristol) at Frampton Cotterell** C.A: 78.5 km^2	**78-85**	**831**		**429**		**1.07**	**21.0**	**27/12 1979**	**0.07**	**04/09 1981**	**2.5**	**0.55**	**0.12**
M.A: NRA-W	Level: 45m Local Number: 20200													
F.A.R: N	B.F.I: .42 Sensitivity: 38.3	1986	864	104	466	109	1.16	13.4	29/01	0.11	28/09	2.9	0.57	0.13
Comment: Crump profile weir, crest 7.5m broad. Full range structure, but drowns out at high flows. Responsive catchment, however, retention lakes 4 to 6km upstream may truncate peaks. # Geology - mainly Coal Measures east of the R. Frome and Lias to the west. Land use - predominantly rural.		1987	783	94	390	91	0.97	10.9	04/04	**0.06**	**02/09**	2.3	0.50	0.10
		1988	803	97	356	83	0.88	9.8	24/01	0.10	17/08	2.3	0.40	0.13
		1988	804	97	346	81	0.86	10.1	25/02	**0.06**	**04/08**	2.3	0.29	0.07
		1990	675	81	238	55	0.59	10.5	08/02	**0.03**	**11/08**	1.4	0.14	0.04
053028	**By Brook at Middlehill** C.A: 102.0 km^2	82-85			482		1.56			0.19	02/09 1984	4.0	1.06	0.25
M.A: NRA-W	Level: 30m Local Number: 40050													
F.A.R: P	B.F.I: .75 Sensitivity: 13.0	1986	975		531	110	1.72			0.26	17/10		1.28	0.32
Comment: Flat V weir. Wingwalls at 2m should contain most floods. Low flow station. Not fully rated, peaks on hydrograph truncate at 4.1 m^3s^{-1}. Minor surface water abstractions in catchment. # Geology - predominantly Oolitic Limestone and Lias. Land use - rural.		1987	807		453	94	1.46			0.21	01/09	3.3	1.28	0.23
		1988	929		478	99	1.54			0.37	24/06	3.9	0.97	0.45
		1988	877		383	79	1.24			0.18	08/09	3.3	0.67	0.20
		1990	736		273	57	0.88			0.14	17/09	2.5	0.31	0.15
053029	**Biss at Trowbridge** C.A: km^2	84-85					0.88	17.1	26/12 1985	0.15	07/09 1984	2.0	0.44	0.18
M.A: NRA-W	Level: 35m Local Number: 100050													
F.A.R: I	B.F.I: Sensitivity:	1986					1.00	17.9	29/01	0.20	16/10	2.3	0.52	0.21
Comment: Crump profile, Flat V weir (1:10), 7.13m wide, set in a deep culvert with vertical walls. Good approach, large downstream fall. Moderate influence on low flows by abstractions and discharges. # Moderate relief catchment situated along the Frome gap. Drains the Chalk scarp to the SE. Underlying geology Jurassic clays. Predominantly rural; arable farming. Contains Westbury.		1987					0.83	10.6	04/04	0.19	20/08	1.8	0.56	0.21
		1988					0.82	7.9	01/02	0.21	10/08	2.0	0.42	0.25
		1988					0.82	30.4	20/12	0.16	28/09	1.7	0.37	0.17
		1990	670				0.79	21.6	03/02	0.15	16/09	1.5	0.30	0.17
054088	**Little Avon at Berkeley Kennels** C.A: 134.0 km^2	**78-85**			**256**		**1.09**	**44.6**	**01/05 1983**	**0.20**	**05/12 1978**	**2.1**	**0.82**	**0.27**
M.A: NRA-W	Level: 10m Local Number: 230050													
F.A.R: PGEI	B.F.I: .61 Sensitivity: 18.0	1986	872		317	124	1.35	43.1	29/01	0.24	16/10	2.8	0.86	0.31
Comment: Velocity-area station in a rectangular concrete channel; gauged from the road bridge. Flood gates d/s to cope with coincidence of large tidal range of Severn and extreme events. Moderate influence from PWS abstractions and spray irrigation. Built by STWA, run by NRA-W. # Steep headwaters drain complex sequence of limestones, sandstones and clays of the Lower and Middle Jurassic; the flat Vale of Berkeley is floored by a Cambrian inlier, Keuper Marl and Lias clays. Agricultural catchment, quite responsive.		1987	774		297	116	1.26	26.6	27/03	0.23	14/08	2.3	0.89	0.31
		1988	759		231	90	0.98	19.1	31/01	**0.16**	**08/09**	2.2	0.60	0.25
		1988	819		220	86	0.94	19.6	18/02	0.16	16/10	2.2	0.47	0.18
		1990	652		189	74	0.80	18.3	01/02	**0.12**	**28/07**	1.7	0.35	0.20

Summary of Archived Data – 1

Gauged daily flows, monthly peaks and monthly rainfall

Stn. number	Gauged daily flows, monthly peaks and rainfall			
043001	60s eAAAAE††††	70s	††††††††††	
043003	60s ----fCCCC	70s	CCCCCCCCCC	
	80s CCCcCCCCFC	90s	C†f	
043004	60s —EAEAA	70s	AAAAAEAAAA	
	80s BEEEEBEDEB	90s	AAe	
043005	60s —EAAAA	70s	AAAAAAAAAA	
	80s AAAAAAAABA	90s	AAe	
043006	60s ——AAAA	70s	AAAAAAAAAA	
	80s AAAAAABBBA	90s	AAe	
043007	70s -†AAAAAAA	80s	AAAAAAABAA	
	90s AAe			
043008	60s ——AAA	70s	AABAAAAAAA	
	80s AABAAABBBA	90s	AAe	
043009	60s -------eA	70s	AAAAAAAAAA	
	80s AAAAAAAAAA	90s	AAe	
043010	60s ——†	70s	EAAAAAABAA	
	80s AA††††----	90s	fce	
043011	70s Eeccfff††††	80s	-----††††	
	90s ††			
043012	60s -----††††	70s	†EAAAAABAA	
	80s AAABABAAEB	90s	AAe	
043013	60s --------†	70s	†EBABBBAAA	
	80s AEEE††††††	90s	††	
043014	60s -----††††	70s	†EAAAAAAAA	
	80s AAAAAAAEAA	90s	AAe	
043017	60s -----††††	70s	†EAAAAAAAA	
	80s AAABABBBEA	90s	AAe	
043018	70s ---eAAAAA	80s	AAAAAAbbbb	
	90s aae			
043019	70s ---EAAAAAA	80s	AABAABAABB	
	90s AAe			
043021	70s ----BBBAB	80s	BBBCCCCCFC	
	90s FFe			
044001	60s ----fcccC	70s	CCCCCCCccc	
	80s ccccCCCCCC	90s	CCf	
044002	60s --eAAAAAA	70s	AAAAAAAAAA	
	80s AAAAAAAEAA	90s	AAe	
044003	60s ------EAAA	70s	AAAAABBAAA	
	80s e-----††††	90s	††	
044004	70s -fCCCCCccc	80s	ccccCCCCCC	
	90s CCf			
044006	60s ------†††E	70s	AAAAABBAAA	
	80s AAAAABBBCB	90s	AAe	
044008	70s ---†EEAAAA	80s	AD††††††††	
	90s ††			

Stn. number	Gauged daily flows, monthly peaks and rainfall			
044009	70s ----eAAAA	80s	ABAABBABEB	
	90s AAe			
051001	60s ——AAA	70s	AAAAAAAAAA	
	80s AAAEeaAAAA	90s	AAe	
051002	70s --eaaaade	80s	----eAABA	
	90s AAe			
051003	60s -----febb	70s	bbbbaabfeè	
	80s e-eeaAAAA	90s	AAe	
052001	50s -----eaaa	60s	aaaaabAAE†	
	70s ††††--†††			
052002	50s ——eAAB	60s	BBBBBBAAe-	
	70s ——†††			
052003	60s -eBAAAAAAA	70s	AAAAAAAAAA	
	80s AEAAAAAAAA	90s	AAe	
052004	60s --eAAAAAAA	70s	AAAAAAAAAA	
	80s AAAAAAAAAA	90s	AAe	
052005	60s -EAAAAAAA	70s	AAAAAAAAAA	
	80s AAAAAAAAAA	90s	AAe	
052006	60s ---eAAAAAA	70s	AAAAAAAAAA	
	80s AAAAAAAAAA	90s	AAe	
052007	60s -----eAAA	70s	AAAAABAAAA	
	80s AAAAAAAAAA	90s	AAe	
052008	60s eBBBBBAAE†	70s	††††-†††††	
052009	60s ---AAAAAA	70s	AAAAAAAAAA	
	80s ABBAAEEAAA	90s	AAe	
052010	60s ---eAAAAA	70s	AAAAAAAAAA	
	80s AAAAAAAAAA	90s	AAe	
052011	60s -----eAAAA	70s	AABAAAAAAA	
	80s AAAAAAAAAA	90s	AAe	
052014	60s ------†EAA	70s	BAAAEEEEE†	
	80s †EEaaaBAAA	90s	AAf	
052015	70s -AAAAAAAAE	80s	----eAAAA	
	90s ABe			
052016	70s †EAAAAAAAA	80s	AAAAaaAAAA	
	90s AAe			
052017	70s ---EEE††††	80s	----eaaaa	
	90s aae			
052020	60s ------fccf	70s	fffFEAAAA†	
	80s ·------††††	90s	††	
053001	50s ---eAAAAAA	60s	AAAAAAAAAA	
	70s AAAAAAAAAA	80s	E†	

Stn. number	Gauged daily flows, monthly peaks and rainfall			
053002	50s ---eAAAAAA	60s	AAAAAAAAAA	
	70s AAAAAAAAAA	80s	AAAaaaAAAA	
	90s AAf			
053003	30s -------f	40s	fccbbbbc-b	
	50s bbabAAAAAA	60s	AAAAAAAAAE	
	70s ††††††††††	80s	††—††††	
	90s ††			
053004	50s ------EA	60s	AAAAAAAAEE	
	70s AAAAAAAAAA	80s	AAAAAAAAAA	
	90s AAe			
053005	60s -EAAAAAAAA	70s	AAAAAAAAAA	
	80s AAAAAAAAAA	90s	AAf	
053006	60s -eAAAAAAAA	70s	AAAAAAAAAA	
	80s AAAAAAAAAA	90s	AAe	
053007	60s -eAAAAAAAA	70s	AAAAAAAAAA	
	80s AAAAAAAAAA	90s	AAf	
053008	60s —AAAAAA	70s	AAAAAAAAAA	
	80s AAAAAAAAAA	90s	AAe	
053009	60s -----AAAA	70s	AAAAAAAAAA	
	80s AAAAAAAAAA	90s	AAe	
053013	70s AAAAAAAAAA	80s	AAAAAAAAAA	
	90s AAe			
053017	70s --EAAAAAA	80s	AAAAAAAAAA	
	90s AAe			
053018	60s --------e	70s	AAAAAAAAAA	
	80s AAAAAAAAAA	90s	AAe	
053019	60s --------e	70s	aaaaaaaaaa	
	80s AAAAaaAAAA	90s	AAe	
053020	60s --------ea	70s	aaaaaaaaaa	
	80s AAAaaaaaaa	90s	aae	
053022	70s ------eAAA	80s	AAAAE††††††	
	90s ††			
053023	70s ------eAAE	80s	AAAAAAAAAA	
	90s AAe			
053024	70s --------AA	80s	AAAAAAAAAA	
	90s AAe			
053025	80s AAAAAAAAAA	90s	AAe	
053026	70s --------AA	80s	AAAAAAAAAA	
	90s AAe			
053028	80s -aaaaAAAA	90s	AAe	
053029	80s ----aaaaaa	90s	AAe	
054088	70s --------ea	80s	aaaaaaAAAA	
	90s AAe			

Summary of Archived Data – 2

Naturalised daily and monthly flows

Stn. number	Naturalised daily, and monthly flows			
043005	60s -----FEEEF	70s	EF	
051002	70s ---FEEEF			

Stn. number	Naturalised daily, and monthly flows			
052002	50s ------FEEE	60s	EEEEEBEEF	
052005	60s -FEEEBEEEE	70s	EEEEEEEF	
052006	60s ---FEEEEEE	70s	EEEEEEEF	
052008	60s FEEEEBEEF			

Stn. number	Naturalised daily, and monthly flows			
052014	60s --------FEE	70s	FEEEFFFF	
053004	50s --------FE	60s	EEEEEEEEFF	
	70s FEEEEEEAAA	80s	A	

Gauged daily flows, monthly peaks and monthly rainfall

KEY:

	Complete rainfall	Incomplete or missing rainfall
Complete daily and complete peaks	A	a
Complete daily and partial peaks	B	b
Complete daily and no peaks	C	c
Partial daily and complete peaks	D	d
Partial daily and partial peaks	E	e
Partial daily and no peaks	F	f
No flow data	†	-

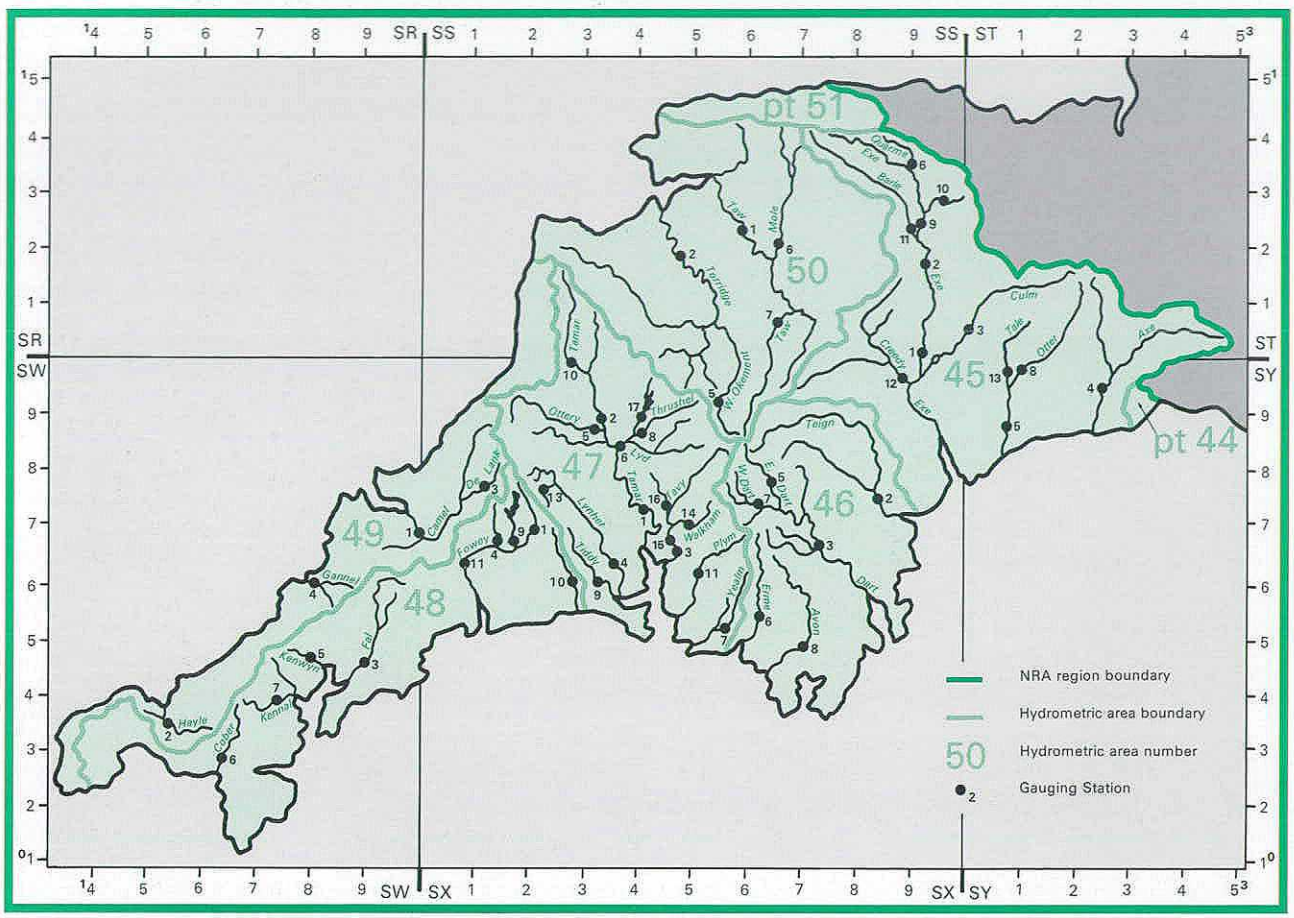
Naturalised daily and monthly flows

KEY:

Complete daily and complete monthly	A
Partial daily and complete monthly	B
Partial daily and partial monthly	C
Partial daily and no monthly	D
No daily and complete monthly	E
No daily and partial monthly	F
No naturalised flow data	-

Up-to-date Summaries of Archived Data are available on request from the National Water Archive Office.

SOUTH WEST REGION



Area: 10,884 km²

Average Rainfall (1961–90): 1173mm

Gauging Station Register

Station number	River name	Station name	Grid reference	Catchment area (sq km)	Station type	Period of record	Mean ann. rainfall (mm)	Mean ann. runoff (mm)	Mean ann. loss (mm)	Max. ann. runoff (mm)	Year of max.	Min. ann. runoff (mm)	Year of min.	Mean flow (m^3s^{-1})	Min. mon. flow (m^3s^{-1})	Month/Year of min.	Mean ann. flood (m^3s^{-1})	10 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
045001	Exe	Thorverton	SS 936016	600.9	VA	1956–90	1270	829	441	1186	60	509	64	15.79	0.69	08/76	186.2	38.0	1.88
045002	Exe	Stoodleigh	SS 943178	421.7	VA	1961–90	1364	921	443	1150	74	644	64	12.31	0.62	08/76	151.6	28.8	1.53
045003	Culm	Wood Mill	ST 021058	226.1		1962–90	964	520	444	675	74	318	64	3.73	0.57	08/76	81.6	7.8	0.99
045004	Axe	Whitford	SY 262953	288.5	CC	1964–90	999	539	460	701	74	292	73	4.93	0.55	08/76	107.9	10.3	1.19
045005	Otter	Dotton	SY 087885	202.5	FVVA	1963–90	982	487	495	615	74	323	73	3.13	0.54	08/76	82.0	6.1	0.95
045006 *	Quarme	Enterwell	SS 919356	20.4	CB	1964–67	*1750*	1073	677	1178	65	1043	66	0.69	0.12	08/67	9.9	1.5	0.19
045008	Otter	Fenny Bridges	SY 115986	104.2	VA	1974–90	1037	623	414	765	81	439	75	2.06	0.28	08/76	65.8	4.2	0.50
045009	Exe	Pixton	SS 935260	147.6	VA	1981–90	*1457*	956	501	1158	81	**775**	**90**	4.48	0.52	08/84		11.5	0.70
045010 *	Haddeo	Hartford	SS 952294	50.0	VA	1973–79		695		1027	74	533	73	1.10	0.03	08/76		2.5	0.07
045011 *	Barle	Brushford	SS 927258	128.0	VA	1968..81		1090		1322	79	893	76	4.42	0.30	08/76	91.1	9.8	0.58
045012	Creedy	Cowley	SX 901967	261.6	VA	1964..90	*903*	463	440	660	74	276	75	3.84	0.15	08/76	102.8	9.2	0.31
046002	Teign	Preston	SX 856746	380.0	VA	1956–90	1270	770	500	1301	60	433	75	9.27	0.47	08/76	175.3	22.3	1.13
046003	Dart	Austins Bridge	SX 751659	247.6	VA	1958–90	1826	1396	430	1986	74	930	75	10.96	0.71	08/76	229.5	24.6	1.40
046005	East Dart	Bellever	SX 657775	21.5	VA	1964–90	2048	1781	267	2604	74	1187	76	1.21	0.10	08/76	43.6	2.7	0.18
046006	Erme	Ermington	SX 642532	43.5	VA	1974–90	1725	1316	409	**1688**	**86**	867	75	1.81	0.11	08/76	42.3	4.2	0.22
046007 *	West Dart	Dunnabridge	SX 643742	47.9	VA	1972..90	2027	1556	471	2324	74	1078	73	2.36	0.20	08/76		5.4	0.28
046008 *	Avon	Loddiswell	SX 719476	102.3	VA	1971..90	*1639*	958	681	1391	74	625	73	3.11	0.21	08/76	56.5	7.5	0.39
047001	Tamar	Gunnislake	SX 426725	916.9	VA	1956–90	1241	775	466	1200	74	431	64	22.52	0.76	08/76	309.1	55.4	1.86
047002	Tamar	Werrington	SX 343886	232.1	VA	1956–81	*1143*	793	350	1119	60	587	57	5.84	0.04	09/59		15.6	0.13
047003 *	Tavy	Lopwell	SX 475652	205.9	MIS	1957..80	1563	898	665	1125	58	853	78	5.87	0.26	08/76		15.2	0.54
047004	Lynher	Pillaton Mill	SX 369626	135.5	VA	1963..90	1443	1019	424	1575	74	679	64	4.38	0.34	08/76	42.8	10.0	0.64
047005 *	Ottery	Werrington Park	SX 336866	120.7	VA	1963..90	1214	688	526	830	65	374	64	2.63	0.02	09/71	46.9	6.8	0.15
047006	Lyd	Lifton Park	SX 388842	218.1	FLVA	1963..90	1265	717	548	1035	65	494	64	4.96	0.21	08/76	131.1	12.0	0.39
047007	Yealm	Puslinch	SX 574511	54.9	FLVA	1963..90	1442	927	515	1269	74	604	71	1.61	0.06	08/76	21.5	3.7	0.19
047008	Thrushel	Tinhay	SX 398856	112.7	CC	1959–90	1184	665	519	1050	74	459	75	2.38	0.02	08/76	52.7	6.3	0.09
047009	Tiddy	Tideford	SX 343595	37.2	C	1969–90	1268	745	523	1038	74	501	73	0.88	0.08	08/76	5.9	2.1	0.12
047010	Tamar	Crowford Bridge	SX 290991	76.7	CC	1972..90	1202	1037	165	1599	74	733	75	2.52	0.05	07/75		5.1	0.09
047011 *	Plym	Carn Wood	SX 522613	79.2	CC	1971–81	1552	909	643	1312	74	521	73	2.28	0.16	08/76		5.4	0.30
047013	Withey Brook	Bastreet	SX 244763	16.2	CC	1973–90	1748	1115	633	1937	74	**816**	**89**	0.57	**0.06**	**08/89**	12.7	1.3	0.10
047014	Walkham	Horrabridge	SX 513699	43.2	MIS	1981..89	*1735*	1305	430	1542	86	1049	83	1.79	0.23	08/84		3.8	0.30
047015	Tavy	Denham/Ludbrook	SX 476681	197.3	MIS	1981..90	*1577*	966	611	1155	82	835	83	6.04	0.72	08/83		15.9	0.79
047016	Lumburn	Lumburn Bridge	SX 459731	20.5	VA	1976..90	*1332*	754	578	955	86	634	87	0.49	0.05	08/76		1.2	0.07
047017	Wolf	Combe Park Farm	SX 419898	31.1		1977–86	*1286*	756	530	929	81	616	85	0.75	0.00	07/77		1.9	0.02
048001	Fowey	Trekeivesteps	SX 227698	36.8	CC	1957..90	1680	1153	527	1641	74	808	76	1.35	0.12	09/59		2.9	0.24
048003	Fal	Tregony	SW 921448	87.0	FLVA	1978–90	1229	719	510	896	79	**546**	**89**	1.98	**0.35**	**08/89**	12.0	4.2	0.41
048004	Warleggan	Trengoffe	SX 159674	25.3	CC	1969..90	1474	1002	472	1531	74	**760**	**89**	0.80	0.12	08/76	9.3	1.6	0.18
048005	Kenwyn	Truro	SW 820450	19.1	CC	1968–90	1124	622	502	898	74	436	71	0.38	0.03	08/76	5.9	0.9	0.05
048006 *	Cober	Helston	SW 654273	40.1	VA	1968–89	1273	779	494	1055	79	580	83	0.99	0.09	08/84	5.9	2.1	0.17
048007	Kennall	Ponsanooth	SW 762377	26.6	C	1968–90	1329	588	741	790	74	**363**	**89**	0.50	**0.04**	**09/90**	3.9	1.2	0.07
048009	St Neot	Craigshill Wood	SX 184662	22.7	CC	1971..90	1558	1095	463	1645	74	879	75	0.79	0.08	08/76	9.8	1.6	0.16
048010	Seaton	Trebrownbridge	SX 299596	38.1	CC	1957..90	1346	834	512	1175	74	540	71	1.01	0.15	08/76	6.7	2.2	0.21
048011	Fowey	Restormel	SX 098624	169.1	CC	1961–90	1504	918	586	1388	74	**632**	**89**	4.92	0.34	08/76		10.8	0.75
049001	Camel	Denby	SX 017682	208.8	VA	1964–90	1398	881	517	1233	74	616	71	5.83	0.42	08/76	60.5	13.1	0.82
049002	Hayle	St Erth	SW 549342	48.9	CC	1957..90	1114	638	476	**816**	**88**	421	71	0.99	0.17	08/76	5.7	2.2	0.22
049003	De Lank	De Lank	SX 132765	21.7	CC	1967..90	1670	1086	584	1401	81	788	75	0.75	0.03	08/76		1.6	0.07
049004	Gannel	Gwills	SW 829593	41.0	C	1969–90	1061	527	534	728	74	**376**	**89**	0.69	0.07	08/76	14.6	1.6	0.10
050001	Taw	Umberleigh	SS 608237	826.2	VA	1958–90	1155	687	468	1053	60	432	64	18.01	0.42	08/76	247.0	47.2	1.17
050002	Torridge	Torrington	SS 500185	663.0	VA	1962–90	1172	739	433	1001	74	427	64	15.53	0.25	08/76	275.9	39.8	0.88
050005	West Okement	Vellake	SX 557903	13.3	MIS	1975–90	*2154*	1584	570	**1928**	**86**	1103	76	0.67	**0.06**	**07/89**		1.6	0.07
050006	Mole	Woodleigh	SS 660211	327.5	VA	1965..90	*1379*	823	556	1017	74	558	75	8.55	0.32	08/76	195.5	20.8	0.74
050007	Taw	Taw Bridge	SS 673068	71.4	VA	1973..90	*1268*	804	464	1259	74	515	75	1.82	0.05	08/76		4.6	0.12
050012 *	Yeo	Veraby	SS 775267	53.7		1968–81		937		1395	70	644	75	1.60	0.05	08/76		3.2	0.12

Hydrometric Statistics

Period	Rainfall (mm)	% of pre-1986	Runoff (mm)	% of pre-1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})

045001 **Exe at Thorverton** C.A: 600.9 km²

M.A: NRA-SW Level: 26m Local Number: SS90F011

F.A.R: SRPGEI B.F.I: .50 Sensitivity: 11.8

Comment: Velocity-area station with cableway. Informal Flat V control constructed in 1973 due to unstable bed condition. Minor culvert flow through mill u/s of station included in rating. Wimbleball Reservoir has significant effect upon low flows. Control point for Wimbleball Reservoir operational releases. # Headwaters drain Exmoor. Geology predominantly Devonian sandstones and Carboniferous Culm Measures, with subordinate Permian sandstones in the east. Moorland, forestry and a range of agriculture.

56-85	**1269**		**832**		**15.85**	**492.6**	**04/12 1960**	**0.42**	**27/08 1976**	**37.5**	**9.63**	**1.87**
1986	1455	115	1006	121	19.17	191.2	19/11	2.34	23/07	42.7	11.10	2.91
1987	1164	92	746	90	14.22	144.3	05/04	1.96	02/09	35.7	8.16	2.34
1988	1323	104	878	106	16.68	160.9	09/10	2.96	25/06	46.2	8.24	3.74
1989	1188	94	682	82	12.99	126.2	15/03	1.21	08/09	37.8	5.74	1.48
1990	1270	100	728	88	13.87	140.2	14/02	1.45	16/09	40.0	5.42	1.71

045002 **Exe at Stoodleigh** C.A: 421.7 km²

M.A: NRA-SW Level: 75m Local Number: SS91F008

F.A.R: SRPE B.F.I: .52 Sensitivity: 6.0

Comment: Velocity-area station with cableway sited on a straight, stable length of river. Low flow controlled by a stone ledge 50m d/s of the gauge. Full range, calibrated to above bankfull. Liable to backing up at bridge immediately u/s in highest floods. Flood relief culvert under road on right bank. Bypassing included in rating. Significantly affected by Wimbleball Res. regulation at low flows. # Headwaters drain Exmoor. Devonian sandstones and Culm Measures. Relatively impermeable catchment; moorland headwaters, grazing and forestry.

61-85	**1356**		**927**		**12.39**	**224.7**	**19/12 1965**	**0.42**	**28/08 1976**	**28.3**	**6.00**	**1.45**
1986	1596	118	1078	116	14.41	142.1	19/11	1.93	23/07	33.4	8.99	2.34
1987	1267	93	814	88	10.89	96.0	04/04	1.67	03/09	28.1	6.38	2.01
1988	1457	107	963	104	12.85	108.4	06/10	2.70	29/06	33.1	6.98	3.29
1989	1318	97	766	83	10.25	103.2	14/03	1.16	07/09	28.5	4.82	1.38
1990	1406	104	830	90	11.10	97.3	13/02	1.42	16/09	29.9	4.68	1.66

			Period	Rainfall (mm)	% of pre-1986	Runoff (mm)	% of pre-1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
045003	**Culm at Wood Mill**	C.A: 226.1 km²	**62-85**	**972**		**523**		**3.75**	**202.2**	**11/07 1968**	**0.44**	**23/08 1976**	**7.8**	**2.29**	**1.03**
M.A: NRA-SW	Level: 44m	Local Number: ST00F008													
F.A.R: PGEI	B.F.I: .53	Sensitivity: 13.7	1986	1047	108	579	111	4.15	55.3	08/01	1.04	16/08	9.2	2.45	1.16
Comment: Velocity-area station with cableway. Flat V weir constructed in 1972. Channel control when structure drowned. Full range. August 1965 river regraded and d/s obstructions removed. Widespread u/s inundation during floods. Data unreliable prior to 1/10/62. Moderate surface and groundwater abstractions affect low flows. # Rises in the Blackdown Hills. Headwaters drain Greensand and Gault Clay. Predominantly Permo-Triassic sandstones, breccias and marls. Extensive valley gravels and alluvium. Subdued relief. Agricultural catchment.			1987	856	88	497	95	3.56	62.0	04/04	0.93	16/08	6.8	2.37	1.04
			1988	962	99	550	105	3.94	49.1	09/10	1.16	17/08	9.4	2.29	1.28
			1989	930	96	446	85	3.20	71.0	21/12	0.60	07/09	6.6	1.76	0.73
			1990	907	93	461	88	3.30	66.4	28/01	0.67	25/07	7.8	1.62	0.74
045004	**Axe at Whitford**	C.A: 288.5 km²	**64-85**	**1007**		**541**		**4.95**	**244.0**	**27/12 1979**	**0.45**	**07/08 1976**	**10.3**	**2.88**	**1.21**
M.A: NRA-SW	Level: 7m	Local Number: SY29F052													
F.A.R: PGEI	B.F.I: .50	Sensitivity: 8.2	1986	1161	115	656	121	6.00	128.0	25/08	1.43	24/07	12.8	3.39	1.62
Comment: Compound Crump profile weir, total width 21.3m, low flow section 7.6m broad. Cableway on site. Structure limit 2m stage. Unique rating above modular limit. Overspill at 1.95m on left bank with some bypassing. Moderate groundwater and surface water abstractions affect lower flows. # Catchment of moderate relief draining Chalk and Greensand headwaters. Middle and lower reaches Keuper Marls; Lias clays and more Greensand. Meadowland, low intensity agriculture, woodland. Minor industrial development.			1987	900	89	507	94	4.64	75.4	04/04	1.27	16/08	9.8	3.09	1.35
			1988	927	92	510	94	4.65	88.0	01/09	1.43	23/06	10.1	2.75	1.62
			1989	998	99	504	93	4.61	166.0	20/12	0.87	06/08	8.5	2.20	0.94
			1990	865	86	477	88	4.36	91.0	01/02	0.98	06/08	9.9	1.98	0.99
045005	**Otter at Dotton**	C.A: 202.5 km²	**63-85**	**987**		**497**		**3.19**	**346.9**	**11/07 1968**	**0.44**	**27/08 1976**	**6.2**	**1.92**	**0.99**
M.A: NRA-SW	Level: 15m	Local Number: SY08F055													
F.A.R: PGEI	B.F.I: .53	Sensitivity: 10.1	1986	1061	107	483	97	3.10	79.2	07/01	0.94	16/08	6.0	1.83	1.01
Comment: Velocity-area station with cableway. Station rebuilt after 1968 flood. Flat V Crump profile weir installed 1971. Full range station. Gabions stabilise bed and banks. Low embankments at field level extend containment. Substantial groundwater and surface water abstractions in catchment. # Rises in Greensand and Gault Clay of the Blackdown Hills. Predominantly Keuper sandstones and marls. Extensive alluvium and valley gravels lower down. Some heathland, woodland and pasture, and a wide range of agriculture.			1987	879	89	418	84	2.68	66.7	03/04	0.92	16/08	4.7	1.78	0.97
			1988	969	98	454	91	2.91	59.3	01/09	1.03	23/06	6.2	1.77	1.16
			1989	967	98	423	85	2.71	100.9	20/12	0.72	06/08	5.1	1.41	0.78
			1990	911	92	432	87	2.77	70.7	27/01	0.76	16/09	5.4	1.40	0.83
045008	**Otter at Fenny Bridges**	C.A: 104.2 km²	**74-85**	**1046**		**638**		**2.11**	**131.7**	**31/05 1981**	**0.22**	**27/08 1976**	**4.4**	**1.15**	**0.50**
M.A: NRA-SW	Level: 55m	Local Number: SY19F052													
F.A.R: P	B.F.I: .49	Sensitivity: 13.7	1986	1137	109	666	104	2.20	55.2	07/01	0.55	16/08	4.4	1.23	0.61
Comment: Velocity-area station with low level bed control and cableway, situated just upstream of road bridge. Bridge invert acts as control at high levels. Right bank likely to be over topped at 1.6m stage when bypassing likely. Minor surface water abstractions in catchment, sensibly natural flow regime. # Rises in the Greensand and Gault Clay of the Blackdown Hills. Keuper Marl in the lower reaches. Contains Honiton. Heathland, pasture and a range of agriculture.			1987	907	87	545	85	1.80	46.3	02/04	0.53	16/08	3.4	1.15	0.56
			1988	1017	97	599	94	1.97	43.4	01/09	0.60	23/06	4.5	1.12	0.69
			1989	1033	99	564	88	1.86	**113.8**	**20/12**	0.39	06/08	3.7	0.91	0.45
			1990	960	92	567	89	1.87	62.4	27/01	0.42	15/09	4.0	0.86	0.45
045009	**Exe at Pixton**	C.A: 147.6 km²	**81-85**	***1538***		**1018**		**4.77**	**71.5**	**19/12 1982**	**0.10**	**22/08 1976**	**11.4**	**2.67**	**0.62**
M.A: NRA-SW	Level: 128m	Local Number: SS92F014													
F.A.R: SRP	B.F.I: .51	Sensitivity: 13.3	**1986**	1618	105	1141	112	5.34	53.4	19/11	0.71	17/07	13.1	3.20	0.95
Comment: Full range velocity-area station. Shallow rock bar downstream of station is a natural low flow control. Bankfull 90 m^3s^{-1}. Influence of bridge soffit upstream of station is unestablished, although the rating is reliably extrapolated to bankfull. Minor abstractions in catchment, low flows significantly affected by Wimbleball Reservoir. # Headwaters rise on Exmoor. Predominantly Devonian sandstones. Land use moorland, rough grazing, forestry.			1987	1271	83	847	83	3.96	30.1	26/03	0.73	06/07	10.4	2.31	0.81
			1988	1460	95	937	92	4.38	30.2	31/01	0.85	17/08	12.8	2.23	1.07
			1989	1361	88	776	76	3.63	33.8	14/03	0.62	24/09	11.4	1.34	0.66
			1990	1409	92	775	76	3.63	30.3	08/02	0.62	15/09	9.8	1.26	0.73
045012	**Creedy at Cowley**	C.A: 261.6 km²	**64..85**			**484**		**4.01**	**195.8**	**27/12 1979**	**0.08**	**17/08 1976**	**9.7**	**1.73**	**0.34**
M.A: NRA-SW	Level: 14m	Local Number: SX99F052													
F.A.R: GE	B.F.I: .45	Sensitivity: 11.0	1986	1003		420	87	3.48	100.5	14/11	0.36	25/07	8.4	1.81	0.45
Comment: Velocity-area station in a deep cutting. Rock bars form the low flow control. Flood flows contained by rock walls and gabions on the rhb and by railway tracks on the lhb. Current metering by wading or from a high bridge 30m u/s. # A vee-shaped catchment draining moderate to high relief valleys from the north and west. Predominantly Culm Measures sandstones and shales with some Permo-Trias breccias and sandstones near Crediton. Low grade agriculture, grazing and forestry.			1987	839		375	77	3.11	90.7	04/04	0.24	31/08	6.8	2.18	0.27
			1988	930		393	81	3.25	47.9	31/01	0.43	17/08	8.9	1.50	0.53
			1989	837		301	62	2.50	95.6	25/02	0.18	06/09	5.4	1.08	0.21
			1990	898		384	79	3.18	64.2	11/02	0.20	15/09	8.5	0.83	0.23
046002	**Teign at Preston**	C.A: 380.0 km²	**56-85**	*1279*		**776**		**9.35**	**312.8**	**30/09 1960**	**0.33**	**28/08 1976**	**22.6**	**5.17**	**1.16**
M.A: NRA-SW	Level: 4m	Local Number: SX87F051													
F.A.R: SRPE	B.F.I: .55	Sensitivity: 9.3	1986	1353	106	873	113	10.52	170.0	19/11	1.76	26/07	23.3	6.55	2.32
Comment: Velocity-area station, channel width approx. 15m. Cableway and steel footbridge. Bypassing on right bank occurs above 2.4m; some accommodation for this in rating. Low flow control is a d/s gravel shoal. 4 reservoirs and various WRWs have minor affect on low flow regime. # Bulk of the river system rises on Dartmoor Granite moorland; it traverses a complex of Devonian and Carboniferous shales, sandstones and cherts before its wide alluvial valley crosses Tertiary sands and clays. Low grade agriculture and woodland.			1987	1085	85	647	83	7.80	134.5	03/04	1.11	29/08	15.1	5.81	1.22
			1988	1214	95	765	99	9.19	116.3	11/10	2.22	25/06	22.8	4.92	2.57
			1989	1212	95	638	82	7.69	143.5	21/12	0.66	07/09	18.3	3.69	0.75
			1990	1230	96	730	94	8.80	140.1	07/02	0.71	15/09	23.5	2.94	0.82
046003	**Dart at Austins Bridge**	C.A: 247.6 km²	**58-85**	**1824**		**1405**		**11.03**	**549.7**	**27/12 1979**	**0.59**	**27/08 1976**	**24.4**	**7.20**	**1.40**
M.A: NRA-SW	Level: 22m	Local Number: SX76F051													
F.A.R: SR	B.F.I: .53	Sensitivity: 7.8	1986	2088	114	1665	119	13.07	261.1	19/11	2.27	24/07	28.9	8.28	2.61
Comment: Velocity-area station, main channel approx. 30m wide. Rock step forms d/s control. Channel contains the MAF. Bypassing occurs on right bank above 4.2m. Well rated. Venford Reservoir operation has minor effect on low flows. Short period of naturalised flows available. # Upper two thirds of the catchment drains moorland associated with the Dartmoor Granite; the lower third is of Carboniferous shales and sandstones. The relief is steep in the headwaters and at the Granite boundary. Responsive. Low grade agriculture and woodland.			1987	1653	91	1204	86	9.45	236.1	27/03	1.40	30/08	21.3	5.89	1.59
			1988	1875	103	1457	104	11.41	207.1	31/08	2.24	25/06	28.1	6.60	3.32
			1989	1716	94	1163	83	9.13	179.8	14/03	0.83	08/09	24.5	4.44	0.95
			1990	1855	102	1260	90	9.89	210.1	07/02	1.11	17/09	29.5	3.66	1.34
046005	**East Dart at Bellever**	C.A: 21.5 km²	**64-85**	**2016**		**1766**		**1.20**	**67.1**	**27/12 1979**	**0.10**	**26/08 1983**	**2.6**	**0.66**	**0.18**
M.A: NRA-SW	Level: 309m	Local Number: SX67F051													
F.A.R: N	B.F.I: .43	Sensitivity: 10.0	1986	2393	119	2149	122	1.47	38.3	18/11	0.27	17/10	3.1	0.87	0.31
Comment: Velocity-area station, channel width approximately 11.5m; cableway approximately 24m. A natural rock step provides the control, with a containment berm on the left bank. Not bypassed, well rated. Natural catchment. # Steep, very wet upland catchment, draining peat covered Dartmoor Granite moorland. Responsive catchment. Flood warning station.			1987	2001	99	1700	96	1.16	32.5	27/03	0.21	23/08	2.3	0.68	0.26
			1988	2226	110	1865	106	1.27	29.4	05/10	0.26	25/06	2.8	0.70	0.34
			1989	2052	102	1576	89	1.07	27.0	14/03	0.11	05/08	2.8	0.52	0.12
			1990	2312	115	1932	109	1.32	26.4	07/02	0.20	15/09	3.3	0.56	0.22
046006	**Erme at Ermington**	C.A: 43.5 km²	**74-85**	**1705**		**1308**		**1.80**	**64.3**	**27/12 1979**	**0.08**	**24/08 1976**	**4.0**	**1.09**	**0.21**
M.A: NRA-SW	Level: 8m	Local Number: SX65F051													
F.A.R: PEI	B.F.I: .49	Sensitivity: 16.6	1986	2098	123	1689	129	2.33	62.7	25/08	0.37	16/10	5.0	1.34	0.49
Comment: Velocity-area station, with low level bed control. Well rated. Significant flow modifications by abstractions and diversions for PWS, and sewage from Ivybridge. # Narrow, linear N-S trending catchment draining southern flank of Dartmoor Granite. Headwaters in plateau-like moorland; main river section in steep, deeply incised valley with short tributaries. Off granite, Devonian slates widely blanketed with river gravel and alluvium. Responsive.			1987	1590	93	1209	92	1.67	46.7	27/03	0.26	28/08	3.8	0.93	0.30
			1988	1880	110	1487	114	2.05	**77.6**	**01/09**	0.35	23/06	5.0	1.07	0.45
			1989	1633	96	1123	86	1.55	41.4	14/03	0.17	07/09	4.3	0.77	0.18
			1990	1667	98	1177	90	1.62	49.8	07/02	0.23	16/06	4.9	0.67	0.27

	Period	Rainfall (mm)	% of pre-1986	Runoff (mm)	% of pre-1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
047001 Tamar at Gunnislake C.A: 916.9 km²	**56-85**	**1236**		**780**		**22.68**	**714.6**	**28/12 1979**	**0.58**	**23/08 1976**	**55.4**	**12.41**	**1.81**
M.A: NRA-SW Level: 8m Local Number: SX47F051													
F.A.R: SRPEI B.F.I: .47 Sensitivity: 7.1	1986	1412	114	906	116	26.33	364.0	19/11	3.72	24/07	58.4	14.53	4.52
Comment: Velocity-area station, wide, shallow channel. Cableway span 46.9m. Low flows measured at narrower, sites. High flow gauging difficult owing to standing waves. Roadford Reservoir from 1989 may have significant affect at low flows. Informal Flat V control installed 1991. # Rural catchment of moderate relief, draining very disturbed lower Carboniferous slates, shales, grits and volcanics. Significant alluvial flats in middle reaches. Devonian slates low down. Fairly responsive. A range of agriculture, grazing and forestry as land use.	1987	1113	90	632	81	18.38	260.7	19/10	1.99	31/08	40.2	11.20	2.28
	1988	1299	105	800	103	23.20	319.5	09/10	2.25	25/06	63.5	10.94	3.32
	1989	1199	97	644	83	18.72	240.8	24/02	0.88	08/08	51.8	8.63	1.07
	1990	1322	107	734	94	21.33	255.6	02/02	1.80	10/09	55.5	6.14	2.07
047004 Lynher at Pillaton Mill C.A: 135.5 km²	**63..85**	**1433**		**1015**		**4.36**	**107.0**	**27/12 1979**	**0.25**	**27/08 1976**	**9.9**	**2.56**	**0.63**
M.A: NRA-SW Level: 9m Local Number: SX36F069													
F.A.R: P B.F.I: .58 Sensitivity: 13.8	1986	1701	119	1295	128	5.57	64.6	19/11	1.04	24/07	11.7	3.46	1.31
Comment: Velocity-area station, channel approx. 10.6m wide, cableway span 16.9m. Downstream shoal as control. Limited confidence to upper range rating. Imports from Sibleyback Reservoir exceed direct PWS abstraction, moderate net affect at low flows. # Headwaters rise on Bodmin peat covered granite moorland; thence Devonian slates and volcanics; middle reach crosses a Carboniferous shale and sandstone inlier. Drift restricted to alluvium. Generally low grade land gives rise to a variety of agriculture, grazing and forestry.	1987	1317	92	903	89	3.88	46.4	18/10	0.67	31/08	8.2	3.05	0.76
	1988	1529	107	1133	112	4.85	29.9d	31/01	0.85	25/06	12.3	3.05	1.14
	1989	1341	94	836	82	3.59	45.8	14/03	0.28	07/09	8.9	2.15	0.37
	1990	1526	106	1036	102	4.45	59.7	14/02	0.57	15/09	10.6	1.72	0.68
047005 Ottery at Werrington Park C.A: 120.7 km²	**63..85**	**1203**		**674**		**2.58**	**138.3**	**27/12 1979**	**0.00**	**30/09 1972**	**6.4**	**1.22**	**0.20**
M.A: NRA-SW Level: 55m Local Number: SX38F073													
F.A.R: GE B.F.I: .39 Sensitivity: 43.8	1986	1389	115										
Comment: Informal flat vee low flow control 10m wide with a good straight approach. Cableway span (18m) extends over flood banks. Insensitive at low flows given wide section. Reaches bankfull on l.h.b in larger floods and then bypassed on r.h.s. Responsive natural catchment closed 1981-87. # Catchment of moderate relief draining eastwards from the coastal hills. Geology is mainly Devonian shales and grits and Carboniferous Culm Measures. Wholly rural, grazing and low grade agriculture, minor forestry.	1987	1107	92										
	1988	1304	108	801	119	3.06	64.2	17/03	0.14	25/06	8.5	1.26	0.28
	1989	1223	102	689	102	2.64	57.4	18/12	0.01	06/08	7.2	1.15	0.03
	1990	1289	107	747	111	2.86	63.6	01/02	0.03	15/09	8.1	0.55	0.07
047006 Lyd at Lifton Park C.A: 218.1 km²	**63..85**	**1267**		**721**		**4.99**	**226.5**	**17/11 1965**	**0.00**	**11/10 1971**	**11.9**	**3.10**	**0.44**
M.A: NRA-SW Level: 48m Local Number: SX38F072													
F.A.R: GEI B.F.I: .49 Sensitivity: 11.4	1986	1456	115										
Comment: 1963-68 VA station; now a shallow (.38m), rectangular flume, side and bed contractions, throat 3.5m wide, flanked by broad crested weirs in channel 7.9m wide. Gentle approach bend. Largest floods exceed bankfull and bypass station. Flows significantly affected by Roadford Res. operation. Closed 1981-89. # Moderate to high relief catchment draining Carboniferous Culm Measures (shales and ssts) Wholly rural; moorland headwaters, forestry in main valleys, rough grazing, low grade agriculture.	1987	1141	90										
	1988	1274	101										
	1989	1173	93	629	87	4.35					11.6	2.06	0.27
	1990	1315	104	685	95	4.74	72.2	29/01	0.50	16/06	12.4	1.64	0.63
047007 Yealm at Puslinch C.A: 54.9 km²	**63..85**	**1444**		**937**		**1.63**	**26.7**	**16/01 1984**	**0.04**	**26/08 1976**	**3.7**	**1.08**	**0.19**
M.A: NRA-SW Level: 6m Local Number: SX55F055													
F.A.R: PI B.F.I: .56 Sensitivity: 18.9	1986	1708	118	1162	124	2.02	**27.9**	**25/08**	0.31	16/10	4.4	1.20	0.42
Comment: Up to 10/67 velocity-area station, formalised trapezoidal channel. Variable low flow rating. Superseded by low flow rectangular flume, 4.7m throat width, side and bottom contractions. Bankfull approx. MAF level; d/s bridge truncates peaks. Moderate influence from abstractions and imports. # Headwaters drain Dartmoor Granite and metamorphosed Devonian slates. Most of catchment underlain by Devonian shales and tuffs with subordinate limestone. Land use - meadowland, arable and lower grade agriculture.	1987	1325	92	775	83	1.35	24.5	28/03	0.18	30/08	2.9	0.88	0.22
	1988	1511	105	988	105	1.72	**28.3**	**31/08**	0.22	25/06	4.5	0.88	0.30
	1989	1323	92	766	82	1.33	26.6	14/03	0.14	06/08	3.6	0.71	0.15
	1990	1333	92	727	78	1.26	26.8	07/02	0.14	16/09	3.4	0.45	0.16
047008 Thrushel at Tinhay C.A: 112.7 km²	**69-85**	*1183*		**672**		**2.40**	**124.4**	**27/12 1979**	**0.01**	**22/08 1976**	**6.3**	**1.13**	**0.08**
M.A: NRA-SW Level: 56m Local Number: SX38F071													
F.A.R: SH B.F.I: .39 Sensitivity: 32.5	1986	1304	110	846	126	3.02	42.4	19/11	0.27	17/10	7.5	1.60	0.35
Comment: Three-bay compound Crump profile weir, crests of 3.66m and 10.97m (total) length. Weir claimed modular to structure full (2.74m); floodbanks would contain flow for a further 0.96m; such flow extrapolated from weir rating. Affected after 1988 by Roadford reservoir. Reservoir produces HEP. Previously natural catchment. # Catchment of moderate relief draining shales and sandstones of Carboniferous Culm Measures. Significant terrace gravels lower down in main valley. Rural; grazing and low grade agriculture.	1987	1055	89	585	84	2.02	34.5	23/03	0.09	31/08	4.7	1.09	0.12
	1988	1211	102	721	107	2.57	66.2	09/10	0.10	25/06	7.5	1.14	0.21
	1989	1127	95	536	80	1.92	39.4	24/02	0.03	09/09	5.1	0.83	0.05
	1990	1247	105	540	80	1.93	43.1	29/01	0.14	16/06	4.8	0.68	0.21
047009 Tiddy at Tideford C.A: 37.2 km²	**69-85**	**1258**		**740**		**0.87**	**10.2**	**27/12 1979**	**0.06**	**27/08 1976**	**2.1**	**0.53**	**0.12**
M.A: NRA-SW Level: 4m Local Number: SX35F068													
F.A.R: N B.F.I: .61 Sensitivity: 29.2	1986	1502	119	959	130	1.13	6.5	19/11	0.25	17/10	2.5	0.72	0.29
Comment: Crump profile weir 5.5m wide, wing walls 2.3m high. Subsidiary floodbanks. Thought to be fully modular. Natural catchment. # Elongated, linear catchment, headwaters rise from the southernmost outcrop of the Bodmin granite. Great bulk of the catchment on Devonian shales and slates interspersed with tuffs and lavas. Moderate relief, low grade agriculture, grazing and forestry.	1987	1186	94	683	92	0.81	4.6	19/10	0.13	30/09	1.8	0.64	0.15
	1988	1332	106	832	112	0.98	7.7	01/02	0.19	25/06	2.6	0.57	0.23
	1989	1174	93	627	85	0.74	6.0	20/12	0.08	04/08	2.0	0.40	0.10
	1990	1312	104	699	94	0.82	7.8	15/02	0.10	11/06	2.2	0.28	0.13
047010 Tamar at Crowford Bridge C.A: 76.7 km²	**72..85**	**1183**		**1014**		**2.47**	**73.7**	**21/09 1980**	**0.01**	**04/08 1975**	**5.0**	**0.86**	**0.08**
M.A: NRA-SW Level: 84m Local Number: SX29F067													
F.A.R: SRP B.F.I: .26 Sensitivity: 26.2	1986	1274	108	1151	114	2.80	57.4	19/11	0.18	17/10	6.1	0.89	0.21
Comment: Compound Crump profile weir, total crest length 11m. Above 1.65m piers submerge (42 m^3s^{-1}). Rating used above this extrapolated from the within pier version. Flows substantially modified by the impoundment of the Tamar Lakes. # The river drains the coastal hills of west Cornwall; the relief is quite subdued, and the rocks outcropping are shales and sandstones of the Carboniferous Culm Measures. Wholly rural; moorland and low grade agriculture.	1987	1143	97	962	95	2.34	56.3	16/10	0.15	28/08	4.6	0.71	0.19
	1988	1324	112	1295	128	3.14	64.5	09/10	0.09	25/06	7.5	0.74	0.15
	1989	1183	100	939	93	2.28	50.7	08/11	0.03	06/09	4.8	0.59	0.05
	1990	1323	112	1124	111	2.73	48.6	24/11	0.09	15/06	5.1	0.50	0.11
047013 Withey Brook at Bastreet C.A: 16.2 km²	**73-85**	**1732**		**1133**		**0.58**	**22.0**	**27/12 1979**	**0.03**	**11/08 1974**	**1.3**	**0.38**	**0.10**
M.A: NRA-SW Level: 229m Local Number: SX27F066													
F.A.R: P B.F.I: .57 Sensitivity: 11.0	1986	2104	121	1427	126	0.73	19.0	25/08	0.11	16/10	1.6	0.44	0.15
Comment: Three-bay compound Crump profile weir, crest lengths 0.91m and 2.54m (total). Affected by subsidence post-1990 (unquantified). Residual flow gauge for associated major PWS abstraction. Occasional substantial diversions into the catchment from Sibleyback Reservoir. Associated climate station. # Moorland catchment of moderate relief entirely upon the granite of Bodmin Moor; widespread peat; main valley broad and marshy.	1987	1546	89	901	80	0.46	11.9	18/10	0.09	01/06	0.9	0.32	0.11
	1988	1825	105	1134	100	0.58	11.1	31/01	0.10	14/06	1.3	0.35	0.12
	1989	1583	91	815	72	0.42	11.3	24/02	0.04	20/07	1.0	0.24	0.05
	1990	1856	107	1074	95	0.55	9.2	14/02	0.07	14/09	1.4	0.21	0.09
047014 Walkham at Horrabridge C.A: 43.2 km²	81..85			1298		1.78	42.2	12/11 1982	0.16	20/08 1984	3.9	1.21	0.26
M.A: NRA-SW Level: 82m Local Number: SX56F057													
F.A.R: PI B.F.I: .59 Sensitivity: 35.7	1986	1944		1542	119	2.11	29.9	11/12	0.49	14/10	4.2	1.50	0.59
Comment: Three-bay compound structure with 2.47m thin-plate weir, 9.48m triangular profile weir and an 8.53m broad-crested weir, theoretically rated. Limited range calibration, high flows unreliable. Moderate flow modification by PWS abstraction. # Substantially moorland catchment draining western Dartmoor Granite. Steep, afforested valley flanks as the river leaves the granite and drains Devonian slates, limestones and volcanics.	1987	1628		1208	93	1.65	30.5	27/03	0.41	02/09	3.2	1.14	0.47
	1988	1803		1333	103	1.82	34.7	31/08	0.44	25/06	3.9	1.26	0.54
	1989	1557											
	1990	1763											

	Period	Rainfall (mm)	% of pre-1986	Runoff (mm)	% of pre-1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
047015 **Tavy at Denham / Ludbrook** C.A: 197.3 km²	**81-85**			**975**		**6.10**	**164.9**	**12/11 1982**	**0.49**	**07/09 1984**	**15.6**	**3.05**	**0.78**
M.A: NRA-SW Level: m Local Number: SX46F003													
F.A.R: P B.F.I: .46 Sensitivity: 12.3	1986	1892											
Comment: Unconventional control comprised of triangular profile low flow weir set within shallow (0.3) wing walls which curve through 90 deg. to fill the whole channel. Low flows significantly modified by PWS for Plymouth. Responsive, well contained. # Catchment drains from the Western flank of the Dartmoor Granite plateau; valleys are steeply incised and forested below Tavistock. Moorland, rough grazing and low grade agriculture.	1987	1496											
	1988	1635		1063	109	6.63	113.1	31/08	1.06	25/06	16.4	3.86	1.44
	1989	1462		846	87	5.29	94.2	24/12	0.64	04/08	15.4	2.17	0.74
	1990	1634		931	95	5.82	89.6	07/02	0.70	13/09	15.9	1.99	0.78
047016 **Lumburn at Lumburn Bridge** C.A: 20.5 km²	**76..85**			**758**		**0.49**	**8.9d**	**27/12 1979**	**0.04**	**15/08 1976**	**1.2**	**0.29**	**0.07**
M.A: NRA-SW Level: m Local Number: SX47F054													
F.A.R: N B.F.I: .65 Sensitivity:	1986	1561		955	126	0.62	12.0	13/12	0.16	17/10	1.3	0.44	0.18
Comment: Velocity-area station poorly sited on a sharp bend u/s of a road bridge. Peak flows likely to be throttled by the bridge but flows would be contained by it. Current metering by wading or from the bridge. Natural catchment with a very flashy regime. # Moderate relief rural catchment draining Carboniferous Culm Measures and Devonian Slate. Grazing, low grade agriculture.	1987	1203		633	84	0.41	2.9	19/10	0.08	01/10	0.9	0.33	0.09
	1988	1335											
	1989	1219		644	85	0.42	6.6	31/01	0.05	04/10	1.0	0.24	0.06
	1990	1337		662	87	0.43	5.5	11/02	0.05	02/09	1.1	0.15	0.06
048001 **Fowey at Trekeivesteps** C.A: 36.8 km²	**57..85**	**1666**		**1163**		**1.36**	**38.8**	**27/12 1979**	**0.11**	**05/10 1959**	**2.9**	**1.00**	**0.25**
M.A: NRA-SW Level: 188m Local Number: SX26F065													
F.A.R: SRP B.F.I: .63 Sensitivity: 8.0	1986	2111	127	1403	121	1.64	22.9	25/08	0.39	22/07	3.3	1.10	0.49
Comment: Up to 3/10/68 a broad-crested weir with a central notch; limited accuracy, flows overestimated. Replaced by a three-bay compound Crump profile weir, crest lengths 1.52m and 5.49m (total). Flood embankments ensure the full range is gauged. Substantial flow modification from associated PWS abstraction, Sibleyback Reservoir operation and exports. # Moderate relief, wet moorland catchment on the Bodmin Moor Granite. Extensive hill and valley peat deposits. Kaolinised granite moderates direct runoff response.	1987	1579	95	959	82	1.12	15.0	18/10	0.19	18/08	2.2	0.89	0.25
	1988	1835	110	1263	109	1.47	17.3	06/10	0.29	25/06	3.3	1.01	0.36
	1989	1522	91	831	71	0.97	16.5	14/03	0.12	05/09	2.2	0.61	0.16
	1990	1784	107	1025	88	1.20	15.7	14/02	0.12	25/05	2.9	0.50	0.17
048003 **Fal at Tregony** C.A: 87.0 km²	**78-85**	*1213*		**730**		**2.01**	**75.8**	**28/12 1979**	**0.21**	**08/09 1984**	**4.2**	**1.52**	**0.43**
M.A: NRA-SW Level: 7m Local Number: SW94F056													
F.A.R: EI B.F.I: .68 Sensitivity: 6.7	1986	1395	115	824	113	2.27	13.2	19/11	0.71	17/10	4.9	1.44	0.84
Comment: Originally a velocity-area station in a formalised trapezoidal channel; augmented by a low flow, side-contracted flume 2.8m wide in August 1967. Site not ideal for high flows. Data available from June 1978. Earlier data unreliable due to silting of inlet pipes. Moderate modification to flows owing to industrial abstractions and returns. # Moderate to low relief catchment draining Devonian slates, shales and grits. Upper reaches plateau-like alluvial flats. Traverses the kaolinised St Austell Granite. Low grade agriculture and grazing.	1987	1124	93	607	83	1.67	11.6	03/04	0.40	27/09	3.4	1.40	0.51
	1988	1362	112	888	122	2.44	41.7	11/10	0.54	19/06	4.9	1.54	0.76
	1989	1125	93	546	75	1.51	14.2	25/02	0.21	30/09	3.7	1.04	0.27
	1990	1221	101	654	90	1.80	16.0	15/02	0.21	14/09	4.2	0.92	0.30
048004 **Warleggan at Trengoffe** C.A: 25.3 km²	**69..85**	*1474*		**1006**		**0.81**	**23.7**	**27/12 1979**	**0.10**	**27/08 1976**	**1.7**	**0.61**	**0.18**
M.A: NRA-SW Level: 70m Local Number: SX16F060													
F.A.R: N B.F.I: .73 Sensitivity: 10.0	1986	1678	114	1209	120	0.97	6.6	25/08	0.34	17/10	1.8	0.77	0.41
Comment: Three-bay compound Crump profile weir, crest lengths 1.52m and 8.53m (total). Wing walls at 1.67m. Flood banks contain flows up to wing wall height. The only gauged natural catchment on Bodmin Moor. # The upper 70% drains the kaolinised granite. The relief is moderate to steep. The lower 30% traverses metamorphosed Devonian slates. Baseflow high for an upland catchment owing to storage in the granite.	1987	1344	91	958	95	0.77	5.2	18/10	0.25	01/10	1.4	0.67	0.30
	1988	1550	105	1115	111	0.89	5.6	31/01	0.28	25/06	1.8	0.69	0.31
	1989	1279	87	761	76	0.61	5.2	24/02	0.14	06/09	1.3	0.51	0.15
	1990	1517	103	919	91	0.74	4.1	14/02	0.16	14/09	1.6	0.43	0.19
048005 **Kenwyn at Truro** C.A: 19.1 km²	**68-85**	**1131**		**624**		**0.38**	**13.4**	**27/12 1979**	**0.02**	**27/08 1976**	**0.9**	**0.22**	**0.05**
M.A: NRA-SW Level: 7m Local Number: SW84F054													
F.A.R: N B.F.I: .66 Sensitivity: 20.0	1986	1229	109	676	108	0.41	5.3	11/12	0.09	16/10	1.0	0.23	0.11
Comment: Three-bay compound Crump profile weir, crest lengths 1.22m and 3.05m (total). Pier and wing wall height 1.98m. Contains all flows; potential for non-modularity at the highest flows. Variable shoaling affects low flow precision. Substantially natural catchment but flood retention ponds will alter high flow response. High baseflow for the relief. # Catchment of moderate relief, with wooded, incised valleys. Geology is Devonian grits and shales.	1987	968	86	507	81	0.31	4.1	03/04	0.04	30/09	0.6	0.25	0.05
	1988	1204	106	817	131	0.49	**30.4**	**11/10**	0.08	16/08	1.1	0.26	0.10
	1989	990	88	483	77	0.29	6.3	25/02	0.03	07/09	0.8	0.17	0.03
	1990	1133	100	601	96	0.36	5.6	01/02	0.04?	14/09	1.0	0.12	0.04
048006 **Cober at Helston** C.A: 40.1 km²	**68-85**	**1269**		**785**		**1.00**	**16.9**	**28/12 1979**	**0.03**	**09/09 1976**	**2.2**	**0.74**	**0.16**
M.A: NRA-SW Level: 5m Local Number: SW62F052													
F.A.R: PGI B.F.I: .73 Sensitivity: 25.6	1986	1374	108	818	104	1.04	6.0	19/11	0.20	16/10	2.5	0.70	0.25
Comment: Velocity-area station, originally with formalised rectangular channel 4.0m wide. Informal broad-crested weir and sluice to power a water wheel, installed in 1975, 3.0m downstream. May back up from Loe Pool. Moderate influence from PWS, industrial abstractions and mine pumping. # 70% of the catchment drains the Carnmenellis Granite, the rest: grits, shales and slates of Devonian age. Subdued response to rainfall.	1987	1196	94	663	84	0.84	4.5	03/04	0.13	01/10	1.6	0.82	0.19
	1988	1401	110	869	111	1.10	7.5d	01/02	0.21	17/08	2.3	0.77	0.26
	1989	1152	91										
	1990	1225	97										
048007 **Kennall at Ponsanooth** C.A: 26.6 km²	**68-85**	**1324**		**600**		**0.51**	**6.3**	**27/12 1979**	**0.05**	**10/09 1984**	**1.2**	**0.34**	**0.08**
M.A: NRA-SW Level: 14m Local Number: SW73F053													
F.A.R: SRPGI B.F.I: .67 Sensitivity: 38.7	1986	1468	111	685	114	0.58	4.3	10/01	0.14	23/07	1.4	0.36	0.16
Comment: Crump profile weir 4.88m crest length, height of wing walls and floodbanks: 2.05m. Modular at all recorded stages. Substantial modification to flows owing to exports from Stithians Reservoir. Some industrial usage produces unpredictable hydrographs. # Moderate to steep catchment draining the Carnmenellis Granite, with small area of metamorphosed shales and grits. Granite well weathered, giving high baseflow. Responsive to heavy rainfall.	1987	1233	93	542	90	0.46	3.0	03/04	0.09	01/10	0.9	0.39	0.11
	1988	1486	112	701	117	0.59	6.5	27/01	0.12	29/06	1.3	0.38	0.15
	1989	1224	92	363	61	0.31	3.1	14/03	**0.03**	**30/09**	0.7	0.17	0.03
	1990	1318	100	434	72	0.37	5.2	11/02	**0.02**	**10/08**	0.9	0.13	0.03
048009 **St Neot at Craigshill Wood** C.A: 22.7 km²	**71..85**	**1570**		**1117**		**0.80**	**21.1**	**27/12 1979**	**0.06**	**27/08 1976**	**1.7**	**0.55**	**0.14**
M.A: NRA-SW Level: 71m Local Number: SX16F062													
F.A.R: SRPE B.F.I: .63 Sensitivity: 12.1	1986	1786	114										
Comment: Compound Crump weir, crest lengths 1.75 m and 5.5 m (total). Wingwalls at 1.7 m. Modular to structure full. Natural regime until impoundment of Colliford Reservoir began (July 1983). Impervious catchment draining from Bodmin Moor, moderate to steep relief.	1987	1427	91				3.0	27/12					
	1988	1612	103	1051	94	0.75	4.9	31/01	0.27	19/09	1.4	0.59	0.32
	1989	1348	86	1038	93	0.75	4.0	25/02	0.16	25/10	1.1	0.69	0.29
	1990	1580	101	1012	91	0.73	2.6d	14/02	0.30	19/12	0.9	0.72	0.38
048010 **Seaton at Trebrownbridge** C.A: 38.1 km²	**57..85**	*1345*		**837**		**1.01**	**14.1**	**27/12 1979**	**0.13**	**26/08 1976**	**2.2**	**0.67**	**0.21**
M.A: NRA-SW Level: 27m Local Number: SX25F064													
F.A.R: GIN B.F.I: .73 Sensitivity: 13.6	1986	1586	118	1031	123	1.25	7.3	25/08	0.40	16/10	2.4	0.92	0.48
Comment: Three-bay compound Crump profile weir, crest lengths 3m and two of 4m. Wing walls and floodbanks at 2.05m. Thought to be fully modular. Upstream subject to siltation. Minimal interference with natural flow regime. # Elongated, linear catchment springing from the southernmost outcrop of the Bodmin Granite. Great bulk of the catchment on Devonian slates and shales interspersed with tuffs and lavas. Moderate relief, low grade agriculture, grazing and forestry.	1987	1231	92	755	90	0.91	3.6	03/04	0.21	30/09	1.8	0.86	0.23
	1988	1371	102	908	108	1.09	8.0	31/01	0.29	25/06	2.4	0.79	0.33
	1989	1198	89	672	80	0.81	6.5	14/03	0.14	06/09	2.1	0.56	0.15
	1990	1365	101	761	91	0.92	7.9	15/02	0.16	26/09	2.1	0.45	0.18
048011 **Fowey at Restormel** C.A: 169.1 km²	**61-85**	*1510*		**933**		**5.00**	**126.6**	**27/12 1979**	**0.26**	**28/08 1976**	**10.8**	**3.46**	**0.74**
M.A: NRA-SW Level: 9m Local Number: SX06F059													
F.A.R: SRP B.F.I: .63 Sensitivity: 7.8	1986	1726	114	1071	115	5.74	49.9	19/11	1.23	16/10	12.1	3.77	1.47
Comment: Compound Crump profile weir, crest lengths 3.5m and 13.0m (total). Piers at 1.75m, wing walls at 2.5m. Flood banks contain flows up to wing wall height. Upstream cableway, fish counter. Substantial modifications to flow from associated PWS abstraction, Colliford and Sibleyback reservoirs and other PWS exports. # Moderate relief catchment whose headwaters drain the kaolinised granite of Bodmin Moor. Middle and low reaches drain Devonian slates and grits. Some valley storage in gravels. Low grade agriculture, grazing and forestry.	1987	1352	90	770	83	4.13	31.1	18/10	0.99	08/09	8.9	3.24	1.23
	1988	1551	103	963	103	5.15	45.7	31/01	1.24	25/06	12.7	3.22	1.51
	1989	1281	85	632	68	3.39	32.9	24/02	0.48	07/10	8.7	1.96	0.62
	1990	1493	99	785	84	4.21	50.2	15/02	0.61	10/09	10.2	1.74	0.76

	Period	Rainfall (mm)	% of pre-1986	Runoff (mm)	% of pre-1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
049001 Camel at Denby C.A: 208.8 km²	**64-85**	**1403**		**868**		**5.74**	**227.9**	**27/12 1979**	**0.36**	**28/08 1976**	**12.9**	**3.87**	**0.80**
M.A: NRA-SW Level: 5m Local Number: SX06F058													
F.A.R: SRPE B.F.I: .62 Sensitivity: 10.5	1986	1602	114	1167	134	7.73	94.7	14/11	1.87	17/10	15.4	5.14	2.46
Comment: Velocity-area station with a low flow control. Replaced an unreliable station at Grogley, 1km downstream. Rating shifts regularly, but is generally sound. Floods contained at the site but station bypassed. Flows significantly modified by PWS and sewage from Bodmin. # The upper catchment drains Devonian slates (variously affected by the granite) and the Bodmin Moor Granite. Lower catchment drains Devonian slates and grits. Moorland and low grade agriculture and grazing.	1987	1248	89	853	98	5.65	78.3	16/10	1.11	01/10	11.1	4.31	1.46
	1988	1477	105	1046	121	6.91	73.2	31/01	0.90	10/08	15.3	4.36	1.48
	1989	1227	87	731	84	4.84	79.3	24/02	0.61	08/09	11.2	3.27	0.69
	1990	1379	98	886	102	5.86	71.2	14/02	0.73	16/09	14.1	2.35	0.88
049002 Hayle at St Erth C.A: 48.9 km²	**57..85**	**1127**		**630**		**0.98**	**6.7**	**14/02 1974**	**0.14**	**29/08 1976**	**2.1**	**0.68**	**0.22**
M.A: NRA-SW Level: 7m Local Number: SW53F051													
F.A.R: GI B.F.I: .83 Sensitivity: 7.3	1986	1155	102	724	115	1.12	4.3	10/01	0.30	16/10	2.5	0.81	0.35
Comment: Up to 1967 an unsatisfactory velocity-area station seriously affected by weed growth; subsequently a compound Crump profile weir, crest lengths: 1.22m and 3.35m (total). Piers and wing walls at 1.83m; floodbanks at 3.8m. Mine drainage may affect the flows moderately. Slow responding catchment; much storage. # Headwaters drain two moorland granite outcrops; majority of the catchment is underlain by grits and shales of Devonian age, crossed by dyke swarms. Mining spoil in the floodplain. Generally low grade agricultural use.	1987	993	88	641	102	0.99	3.9	03/04	0.24	01/10	1.8	0.99	0.27
	1988	1179	105	818	130	1.27	**9.2**	**31/01**	0.36	16/08	2.4	0.95	0.39
	1989	975	87	535	85	0.83	5.0	14/03	0.19	07/09	1.9	0.62	0.22
	1990	1025	91	611	97	0.95	7.3	03/02	0.19	20/10	2.3	0.38	0.20
049003 De Lank at De Lank C.A: 21.7 km²	**67..85**	**1653**		**1093**		**0.75**	**25.9**	**27/12 1979**	**0.01**	**06/07 1975**	**1.6**	**0.49**	**0.07**
M.A: NRA-SW Level: 226m Local Number: SX17F063													
F.A.R: P B.F.I: .57 Sensitivity: 22.5	1986	2048	124	1310	120	0.90	13.4	19/11	0.16	16/10	1.8	0.61	0.22
Comment: Three-bay compound Crump profile weir, crest lengths 1.22m and 6.4m (total). Divide piers at 1.01m, wing walls 1.62m. Unusually small difference between crest elevations (0.095m). Very seldom drowned or outflanked. Flows substantially modified by associated PWS works. # Moderate relief, wet catchment on the Bodmin Moor Granite. The river occupies marshy alluvial flats in the headwaters. Responsive.	1987	1525	92	967	88	0.67	13.6	18/10	0.12	30/09	1.3	0.47	0.14
	1988	1805	109	1174	107	0.81	8.9	31/01	0.11	25/06	1.8	0.50	0.17
	1989	1525	92	835	76	0.57	14.7	24/02	0.06	25/08	1.4	0.35	0.07
	1990	1741	105	1018	93	0.70	9.7	14/02	0.04	16/06	1.8	0.32	0.07
049004 Gannel at Gwills C.A: 41.0 km²	**69-85**	**1060**		**534**		**0.69**	**25.6**	**06/10 1977**	**0.05**	**19/09 1984**	**1.6**	**0.43**	**0.10**
M.A: NRA-SW Level: 9m Local Number: SW85F055													
F.A.R: GEI B.F.I: .69 Sensitivity: 37.0	1986	1173	111	608	114	0.79					1.9	0.48	0.25
Comment: Crump profile weir, crest length 6.0m, wing walls 1.9m, modular throughout its range. Flood banks contain flow up to 2.78m; they may be treated as weirs for higher stages. Insensitive at low flows. Valley inundates upstream of the road bridge. Natural catchment, but mine drainage may affect low flows. # Moderately steep catchment draining calcareous slates and thin limestones of the lower Devonian. Low grade agriculture, pasture. Subdued response.	1987	938	88	453	85	0.59	16.2	16/10	0.10	01/10	1.2	0.50	0.11
	1988	1178	111	643	120	0.83	**26.7**	**11/10**	0.17	25/06	1.7	0.55	0.22
	1989	955	90	376	70	0.49	12.4	24/02	0.06	02/09	1.3	0.31	0.06
	1990	1048	99	490	92	0.64	18.3	01/02	0.06	14/09	1.6	0.25	0.07
050001 Taw at Umberleigh C.A: 826.2 km²	**58-85**	**1148**		**687**		**17.99**	**649.5**	**04/12 1960**	**0.20**	**28/08 1976**	**46.7**	**9.29**	**1.17**
M.A: NRA-SW Level: 14m Local Number: SS62F001													
F.A.R: P B.F.I: .42 Sensitivity: 9.2	1986	1316	115	836	122	21.91	252.0	19/11	1.86	24/07	53.8	11.45	2.47
Comment: Velocity-area station, main channel 34m wide, cableway span 54.9m. Rock step downstream forms control. Bypassing begins at about 3.7m on right bank, but a good rating accommodates this. Significant modification to flows owing to PWS abstraction. Some naturalised flow data available. # Large rural catchment - drains Dartmoor (granite) in south and Devonian shales and sandstones of Exmoor in north. Central area underlain mainly by Culm shales and sandstones (Carboniferous). Agriculture conditioned by grade 3 and 4 soils.	1987	1066	93	615	90	16.12	205.5	05/04	1.14	01/09	42.6	8.41	1.42
	1988	1261	110	767	112	20.03	250.9	09/10	1.51	25/06	59.7	8.74	2.54
	1989	1110	97	593	86	15.54	167.0	25/02	0.59	10/09	45.6	6.31	0.72
	1990	1214	106	653	95	17.11	203.1	15/02	0.81	17/09	55.0	4.99	1.08
050002 Torridge at Torrington C.A: 663.0 km²	**62-85**	**1155**		**731**		**15.36**	**730.0**	**28/12 1979**	**0.12**	**25/08 1976**	**38.6**	**7.67**	**0.89**
M.A: NRA-SW Level: 14m Local Number: SS51F004													
F.A.R: SRPEI B.F.I: .39 Sensitivity: 9.6	1986	1329	115	945	129	19.88	370.4	19/11	1.60	24/07	50.2	8.17	2.02
Comment: Velocity-area station, main channel 28m wide, cableway span 32.5m. Overspilling begins on left bank at about 3.3m. Reconstructed in 1977. Well calibrated throughout range. Records prior to October 1962 unreliable. Moderate modification to flows from Meldon Res. and intermediate low flow augmentation from Roadford Res. # Large rural catchment draining coastal hills in west and Dartmoor Granite in south. Geology mostly Carboniferous shales and sandstones of the Culm. Moorland, rough grazing and generally low grade agricultural land.	1987	1123	97	730	100	15.36	264.4	23/03	0.78	23/08	38.6	6.45	0.97
	1988	1298	112	811	111	16.99	276.4	09/10	0.83	24/06	49.9	6.69	1.69
	1989	1198	104	667	91	14.02	196.7	25/12	0.30	08/08	40.3	5.13	0.42
	1990	1302	113	756	101	15.91	209.2	02/02	0.72	16/09	44.2	3.96	0.82
050005 West Okement at Vellake C.A: 13.3 km²	**75-85**			**1598**		**0.67**	**39.3**	**27/12 1979**	**0.00**	**08/07 1981**	**1.6**	**0.35**	**0.08**
M.A: NRA-SW Level: 300m Local Number: SX59F005													
F.A.R: P B.F.I: .31 Sensitivity: 12.0	1986			1929	121	0.81	**20.2**	**19/11**	0.09	24/07	1.9	0.44	0.11
Comment: Rectangular thin plate weir flanked by compound broad-crested weirs with a bridge over. Lack of suitable metering sites renders rating difficult - some has been attempted at a bridge d/s. Out of bank above 1.1m and big floods will bypass. Low flows dominated by Prewley WTW abstraction u/s. # Drains northwards from the highest area of Dartmoor. Wholly on granite. Channel is wide, meandering and rocky. Moorland.	1987	2023		1405	88	0.59	19.5	03/03	0.06	12/12	1.4	0.22	0.08
	1988	2240		1524	95	0.64					1.6	0.23	0.06
	1989	2009		1304	82	0.55	17.7	24/12	0.04	04/07	1.6	0.12	0.05
	1990	2334		1659	104	0.70	16.4	29/01	0.05	28/08	1.7	0.29	0.08
050006 Mole at Woodleigh C.A: 327.5 km²	**65..85**			**823**		**8.55**	**188.0**	**09/01 1968**	**0.20**	**27/08 1976**	**20.3**	**5.08**	**0.74**
M.A: NRA-SW Level: 48m Local Number: SS62F002													
F.A.R: SPE B.F.I: .47 Sensitivity: 10.3	1986	1514											
Comment: VA station with rock ledges/gravel shoals as controls. Straight reach, weed affected. Gauging by wading at low flows and off remote bridges at higher. Goes out of bank on l.h.s. Low flows moderately affected by PWS abstraction and augmentation from Exe - Taw transfers. Quite responsive. # Moderate relief catchment descending from Exmoor through incised, forested valleys. Geology ssts and shales; headwaters Devonian, Carboniferous lower down. Predominantly rural; grazing and low grade agriculture.	1987	1212											
	1988	1467		957	116	9.91	120.0	09/10	1.17	22/06	27.5	4.77	1.66
	1989	1268		705	86	7.32	73.7	30/10	0.47	09/09	21.1	3.41	0.58
	1990	1404		823	100	8.54	100.2	15/02	0.68	16/09	26.7	3.10	0.89
050007 Taw at Taw Bridge C.A: 71.4 km²	**73..85**			**812**		**1.84**	**128.0**	**27/12 1979**	**0.02**	**23/08 1976**	**4.5**	**0.91**	**0.13**
M.A: NRA-SW Level: 84m Local Number: SS60F015													
F.A.R: P B.F.I: .46 Sensitivity: 12.7	1986	1410		891	110	2.02	36.0	19/11	0.22	24/07	4.9	1.04	0.29
Comment: Velocity-area station. Main channel circa 12m wide in meandering reach. Rock bar control. Gauged from u/s footbridge of d/s bridge. All flows contained. PWS abstraction has moderate effect on low flows. # Long, narrow catchment with headwaters in northern Dartmoor. An entirely rural catchment developed on granite, Culm shales and sandstones.	1987	1107					24.0	03/04					
	1988	1268		830	102	1.87	30.1	09/10	0.26	24/06	5.1	0.88	0.33
	1989	1229		749	92	1.69	32.1	24/12	0.07	22/08	4.9	0.70	0.09
	1990	1321		815	100	1.85	30.7	11/02	0.09	12/09	5.9	0.44	0.11

Summary of Archived Data - 1

Gauged daily flows, monthly peaks and monthly rainfall

Stn. number	Gauged daily flows, monthly peaks and rainfall			
045001	50s	------eAAA	60s	AAAAAAAAAA
	70s	AAAAABAAAA	80s	AAAAAAAAAA
	90s	AAf		
045002	60s	-eAAAAAAAB	70s	AAAAAAAAAA
	80s	AAAAAAAAAA	90s	AAf
045003	60s	--eAAAAAAA	70s	AAAAAAAAAA
	80s	AAAAAAAAAA	90s	AAf
045004	60s	----eAAAAA	70s	AAAAAAAAAA
	80s	AAAAAAAABA	90s	AAf
045005	60s	---eAAAAAA	70s	AAAAAAAAAA
	80s	AAAAAAAAAA	90s	AAf
045006	60s	----eaAE††	70s	††††††††††
045008	70s	--††EAAAAA	80s	ABAAAAAABA
	90s	AAf		
045009	80s	-AAaaaACCA	90s	AAf
045010	70s	---ccccccc	80s	------††††
	90s	††		
045011	60s	--------cf	70s	-----fcccc
	80s	cf----††††	90s	††
045011	60s	--------cf	70s	-----fcccc
	80s	cf----††††	90s	††
045012	60s	----fcfccc	70s	cccccccccc
	80s	ccccccAACC	90s	CAf
046002	50s	------eAAA	60s	AAAAAAAAAA
	70s	AAAAAAAAAA	80s	AAAAAAAACA
	90s	AAf		
046003	50s	--------eA	60s	AAAAAAAAAA
	70s	AAAAAAAAAA	80s	AAAAAAAAAA
	90s	AAf		
046005	60s	----EAAAAA	70s	AAAAAAAAAA
	80s	AAAAAAAACA	90s	AAf
046006	70s	----AAAAAA	80s	AAAAAAAACA
	90s	AAf		
046007	70s	--eAAAAAAA	80s	AF----††††
	90s	FCf		
046008	70s	-eaaaaaaaa	80s	aF----††††
	90s	FCf		

Stn. number	Gauged daily flows, monthly peaks and rainfall			
047001	50s	------eAAA	60s	AAAAAABBBB
	70s	AAAAAAAAAA	80s	AAAAAAAAAA
	90s	AAf		
047002	50s	------eaaa	60s	aE††††††††
	70s	††††††††††		
047003	50s	-------eBE	60s	††††††††††
	70s	††††EEEAAE	80s	E††††††
047004	60s	---eAAEAEA	70s	AAAAAAAAAA
	80s	AAAAAAAACA	90s	AAf
047005	60s	---eAAAAAA	70s	AEE†††††EA
	80s	AF----††CC	90s	AAf
047006	60s	---eAAEAEE	70s	EE†††EAAAE
	80s	AF----††FF	90s	CAf
047007	60s	---eAAABAA	70s	AAEEAAAAAA
	80s	AAAAAAAAAA	90s	AAf
047008	60s	---------e	70s	AAAAAAAAAA
	80s	AAAAAAAAAA	90s	AAf
047009	60s	---------E	70s	AAAAAAAAAB
	80s	AAAAAAAAAA	90s	AAf
047010	70s	-†EAAAAAAA	80s	AAAAE†AACA
	90s	AAf		
047011	70s	-EAAAAAAAA	80s	AF----††††
	90s	††		
047013	70s	--†DAAAAAA	80s	AAAAAAAACA
	90s	AAf		
047014	80s	-aaaaeAACF	90s	††
047015	80s	-eaaaa††CC	90s	AAf
047016	70s	------fccf	80s	ffffccCCFC
	90s	AAf		
047017	70s	-------fcc	80s	ccccccA†††
	90s	††		
048001	50s	-------eAA	60s	AAAAEAAEEE
	70s	AAAAAAAAAA	80s	AAAAAAAAAA
	90s	AAf		
048003	70s	--------fc	80s	cAABAAAAAA
	90s	AAf		
048004	60s	---------e	70s	AAAAAAAAAE
	80s	AAAAAAAAAA	90s	AAf

Stn. number	Gauged daily flows, monthly peaks and rainfall			
048005	60s	--------EA	70s	AAAAAAAAAA
	80s	AAAAAAAAAA	90s	AAf
048006	60s	--------EA	70s	AAAAAAAAAA
	80s	AAAAABAACF	90s	††
048007	60s	--------EA	70s	AAAAAAAAAA
	80s	AAAAAAAACA	90s	AAf
048009	70s	†EAAAAAAAA	80s	A††††††CC
	90s	CCf		
048010	50s	-------ff-	60s	--------f
	70s	cCBAAAAAAA	80s	AAAAAAAAAA
	90s	AAf		
048011	60s	-FcbAAABBA	70s	AAAAAAAAAA
	80s	AAAAAAAAAA	90s	AAf
049001	60s	----eAAAAA	70s	AAAAAAAAAA
	80s	AAAAAAAAAA	90s	AAf
049002	50s	-------EE†	60s	†††††††EA
	70s	AAABAAAAAA	80s	AAAAAAAAAA
	90s	AFf		
049003	60s	-------eEB	70s	CBEEEAAADA
	80s	AAAAAAAACA	90s	AAf
049004	60s	---------E	70s	AAAAAAAAAA
	80s	AAAAABDAAA	90s	AAf
050001	50s	--------eA	60s	AAAAAAAAAA
	70s	AAAAAAAAAA	80s	AAAAAAAAAA
	90s	AAf		
050002	60s	--eAAAAAAA	70s	BAAAAAAAAA
	80s	AAAAAAAAAA	90s	AAf
050005	70s	-----fcccc	80s	ccccccaAFA
	90s	AAf		
050006	60s	-----daaaa	70s	aaaaaaaaaa
	80s	aaaaae††AA	90s	AAf
050007	70s	---fccccccc	80s	ccccfccCFCC
	90s	AAf		
050012	60s	--------fc	70s	cccccccccc
	80s	cf----††††	90s	††

Summary of Archived Data – 2

Naturalised daily and monthly flows

Stn. number	Naturalised daily, and monthly flows			
045003	60s –FEEEEEF			
045004	60s ——CA	70s	C	
045005	60s –FEEEFCA	70s	C	
046002	60s FEEEEEEEF			
046003	60s ——CA	70s	C	
046006	70s —AAAAAA	80s	AAAAAAA	

Stn. number	Naturalised daily, and monthly flows			
047004	60s —FBCEFF			
047005	60s ——C			
047015	50s ——AAA	60s	AAAAAAAAAA	
	70s AAAAAAAAAA	80s	AAAAAA	
048001	60s —FBACCC			
048006	60s ——CC			
048007	60s ——CC			

Stn. number	Naturalised daily, and monthly flows		
049003	60s ——CCC		
050001	50s ——DA	60s	AAAAAAAAAA
	70s AAAAAAAAAA	80s	AAAAAAAAD
050002	60s –FEEBBEBA	70s	C
050006	60s ——DAAAA	70s	AAAAAAAAAA
	80s AAAAAAAAD		

Gauged daily flows, monthly peaks and monthly rainfall

KEY:

	Complete rainfall	Incomplete or missing rainfall
Complete daily and complete peaks	A	a
Complete daily and partial peaks	B	b
Complete daily and no peaks	C	c
Partial daily and complete peaks	D	d
Partial daily and partial peaks	E	e
Partial daily and no peaks	F	f
No flow data	†	-

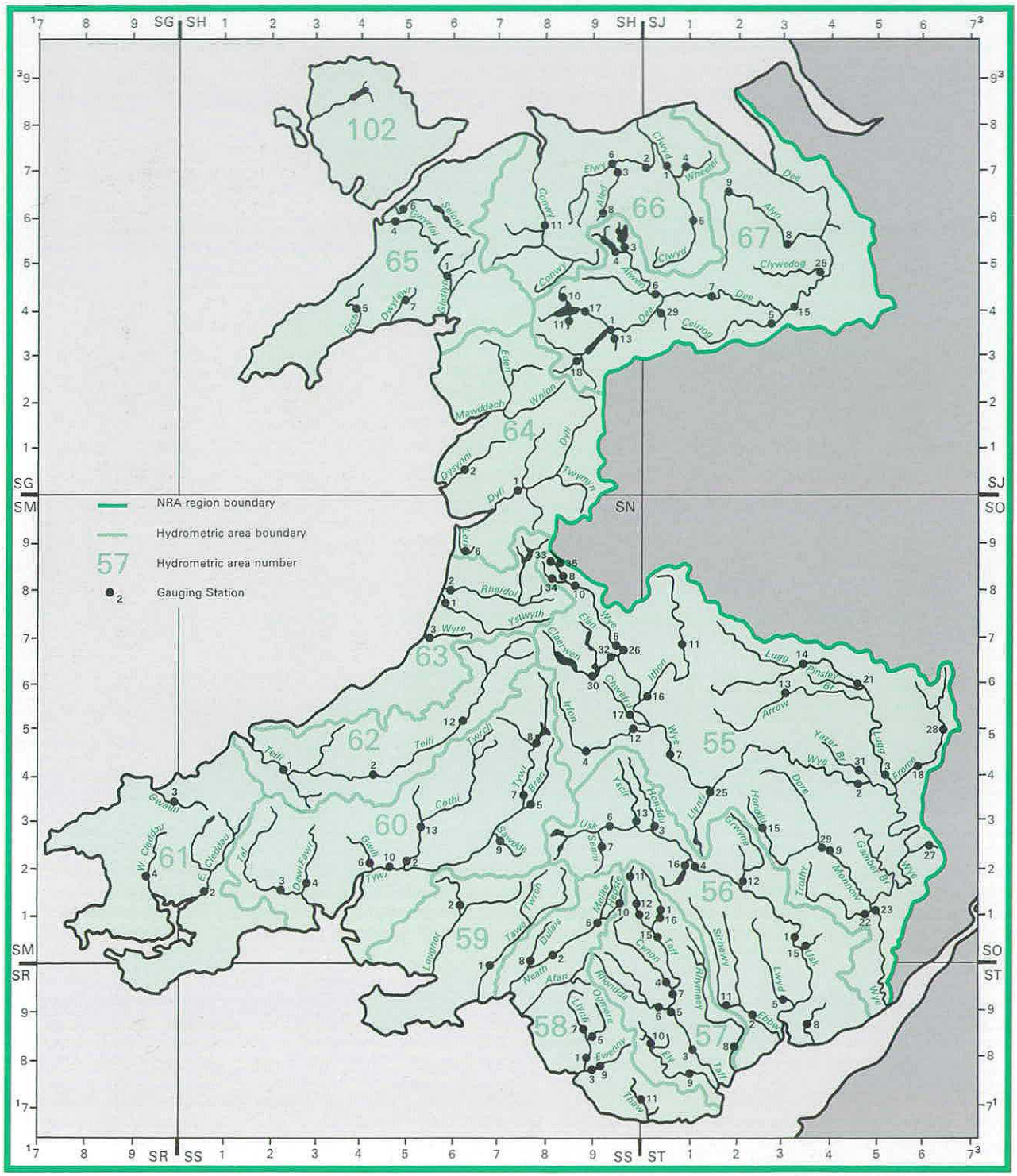
Up-to-date Summaries of Archived Data are available on request from the National Water Archive Office.

Naturalised daily and monthly flows

KEY:

Complete daily and complete monthly	A
Partial daily and complete monthly	B
Partial daily and partial monthly	C
Partial daily and no monthly	D
No daily and complete monthly	E
No daily and partial monthly	F
No naturalised flow data	-

WELSH REGION



Area: 21,262 km²

Average Rainfall (1961–90): 1313mm

Gauging Station Register

Station number	River name	Station name	Grid reference	Catchment area (sq km)	Station type	Period of record	Mean ann. rainfall (mm)	Mean ann. runoff (mm)	Mean ann. loss (mm)	Max. ann. runoff (mm)	Year of max.	Min. ann. runoff (mm)	Year of min.	Mean flow (m^3s^{-1})	Min. mon. flow (m^3s^{-1})	Month/Year of min.	Mean ann. flood (m^3s^{-1})	10 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
055002	Wye	Belmont	SO 485388	1895.9	VA	1935..90	1232	764	468	1141	46	453	76	45.94	3.34	08/76	436.1	109.9	6.00
055003 *	Lugg	Lugwardine	SO 548405	885.8	VA	1939–81	839	378	461	691	60	175	64	10.63	0.57	08/76	50.2	25.1	1.43
055004 *	Irfon	Abernant	SN 892460	72.8	VA	1937..82	1815	1387	428	1917	66	927	76	3.20	0.15	09/59	59.9	7.6	0.31
055005 *	Wye	Rhayader	SN 969676	166.8	VA	1937..69	1627	1169	458	1613	54	909	45	6.18	0.29	09/59	137.0	14.9	0.63
055006	Elan	Caban Coch Res	SN 926645	184.0	B	1908..84	1825	866	959	1563	23	239	76	5.05	0.58	10/84		13.7	1.40
055007	Wye	Erwood	SO 076445	1282.1	VA	1937..90	1387	895	492	1238	46	536	64	36.37	2.62	08/76	560.4	91.5	4.50
055008	Wye	Cefn Brwyn	SN 829838	10.6	CC	1951..90	2437	2060	377	2971	54	1336	76	0.69	0.04	08/76	19.2	1.6	0.07
055009 *	Monnow	Kentchurch	SO 419251	357.4	VA	1948..72	1028	521	507	962	60	274	64	5.90	0.60	09/61	121.2	12.9	0.77
055010 *	Wye	Pant Mawr	SN 843825	27.2	FVVA	1955..82	2365	1908	457	2439	74	1351	76	1.65	0.10	08/76	59.6	3.9	0.17
055011 *	Ithon	Llandewi	SO 105683	111.4	VA	1959..82	1188	739	449	995	60	480	64	2.61	0.02	08/76	54.4	6.5	0.14
055012	Irfon	Cilmery	SN 995507	244.2	FVVA	1966..90	1662	1313	349	1812	83	795	76	10.17	0.25	08/76	185.5	25.2	0.73
055013	Arrow	Titley Mill	SO 328585	126.4	VA	1966–90	1000	599	401	853	82	327	73	2.40	**0.13**	**09/90**	31.1	5.6	0.26
055014	Lugg	Byton	SO 364647	203.3	FVVA	1966–90	1022	605	417	768	77	360	73	3.90	0.41	08/76	28.4	8.5	0.66
055015 *	Honddu	Tafolog	SO 277294	25.1	FVVA	1966..82	1402	905	497	1092	72	513	73	0.72	0.04	05/82	22.6	1.5	0.11
055017 *	Chwefru	Carreg-y-wen	SN 998531	29.0	FVVA	1968..81	1407	958	449	1238	77	661	76	0.88	0.01	08/76	23.2	2.1	0.04
055018	Frome	Yarkhill	SO 615428	144.0	VA	1968..90	714	266	448	357	77	147	73	1.21	0.06	08/76	21.0	2.8	0.14
055021	Lugg	Butts Bridge	SO 502589	371.0	VA	1969..90	906	484	422	663	77	263	73	5.70	**0.39**	**09/89**		12.5	0.74
055022 *	Trothy	Mitchel Troy	SO 503112	142.0	FVVA	1969..82	870	352	518	458	74	129	73	1.58	0.08	07/76		3.5	0.13
055023	Wye	Redbrook	SO 528110	4010.0	VA	1936..90	1024	567	457	892	60	314	64	72.12	5.18	08/76	484.8	169.1	11.61
055025	Llynfi	Three Cocks	SO 166373	132.0	VA	1970–90	982	540	442	747	82	283	73	2.26	0.07	08/76		5.3	0.16
055026	Wye	Ddol Farm	SN 976676	174.0	FVVA	1937..90	1623	1167	456	1546	54	780	76	6.44	0.18	08/76	121.7	15.5	0.53
055027 *	Rudhall Brk	Sandford Bridge	SO 641257	13.2	FV	1971–78	680	239	441	358	77	100	73	0.10	0.01	08/76		0.2	0.01
055028	Frome	Bishops Frome	SO 667489	77.7	FVVA	1971..90	715	302	413	425	82	174	73	0.74	**0.06**	**09/90**		1.5	0.10
055029	Monnow	Grosmont	SO 415249	354.0	VA	1948..90	1004	525	479	971	60	244	73	5.90	0.36	08/76		13.4	0.67
055030 *	Claerwen	Dol-y-mynach	SN 910620	95.3	TP	1926..50		1327		1648	30	847	33	4.01	0.21	07/49	90.4	10.2	0.33
055031	Yazor Brook	Three Elms	SO 492415	42.3	FV	1973..90	684	163	521	242	82	82	76	0.22	0.03	07/76		0.4	0.05
055032	Elan	Elan Village	SN 934653	184.0	FV	1908..90	1822	879	943	1563	23	239	76	5.13	0.56	10/84		13.9	1.18
055033	Wye	Gwy flume	SN 824853	3.9	FL	1969..89	*2609*	**3800**		**29223**	69	1399	76	0.47	0.01	08/76		0.8	0.04
055034	Cyff	Cyff flume	SN 824842	3.1	FL	1973..89	*2528*	2075	453	2411	79	1282	76	0.20	0.01	08/76		0.5	0.02
055035	Iago	Iago flume	SN 826854	1.1	FL	1973–88	*2581*	1921	660	2408	74	1089	76	0.07	>0.00	08/76		0.2	0.01
056001	Usk	Chain Bridge	SO 345056	911.7	VA	1957–90	1389	962	427	1524	60	515	73	27.81	2.70	08/76	411.1	63.9	4.16
056002	Ebbw	Rhiwderyn	ST 259889	216.5	FVVA	1957..90	1496	1061	435	1541	82	509	73	7.28	**1.05**	**08/90**	105.0	16.4	1.43
056003 *	Honddu	The Forge Brecon	SO 051297	62.1	CC	1963–81	1153	745	408	1050	74	446	64	1.47	0.06	08/76	24.1	3.3	0.16
056004 *	Usk	Llandetty	SO 127203	543.9	VA	1965–80	1494	977	517	1359	74	589	73	16.85	1.62	08/76	343.7	38.5	2.35
056005	Lwyd	Ponthir	ST 330924	98.1	CC	1966–90	1439	999	440	1269	82	513	73	3.11	0.46	07/76	49.0	6.8	0.62
056006 *	Usk	Trallong	SN 947295	183.8	VA	1963–81	1675	1102	573	1598	74	692	73	6.42	0.98	05/80	163.0	14.4	1.01
056007	Senni	Pont Hen Hafod	SN 928255	19.9	C	1967..90	1937	1577	360	**2006**	**86**	930	73	1.00	0.07	08/76	26.2	2.3	0.10
056008 *	Monks Ditch	Llanwern	ST 372885	15.4	FL	1970..76	*891*	432	459	514	71	252	73	0.21	0.05	10/72		0.4	0.05
056010 *	Usk	Trostrey Weir	SO 358042	927.2	C	1969..81		785		1057	79	916	70	23.09	2.70	08/76		65.7	4.89
056011 *	Sirhowy	Wattsville	ST 206912	76.1	FVVA	1970–81	1444	857	587	1092	81	457	73	2.07	0.20	08/76	40.4	4.7	0.34
056012 *	Grwyne	Millbrook	SO 241176	82.2	C	1971–81	1251	771	480	963	79	431	73	2.01	0.20	08/76	24.1	4.4	0.34
056013	Yscir	Pontaryscir	SO 003304	62.8	C	1972–90	1435	965	470	1238	74	646	73	1.92	0.10	08/76	38.4	4.6	0.18
056015 *	Olway Brook	Olway Inn	SO 384010	105.1	C	1975..81	963	427	536	562	81	369	78	1.42	0.06	08/76	17.2	3.8	0.10
056016	Caerfanell O/f	Talybont Res	SO 104206	32.4	TP	1979–88		795		948	86	549	87	0.82	0.05	08/84		2.0	0.13
057001 *	Taf Fechan	Taf Fechan Res	SO 060117	33.7	MIS	1936..73	1976	708	1268	1348	39	185	73	0.76	0.11	12/73		1.8	0.22
057002 *	Taf Fawr	Llwynon Res	SO 012111	43.0	MIS	1931..73	1992	937	1055	1459	54	399	73	1.28	0.11	05/56		3.2	0.14
057003 *	Taff	Tongwynlais	ST 132818	486.9	VA	1965–72	1863	1365	498	1570	67	989	69	21.08	4.36	08/68	342.4	48.4	4.03
057004	Cynon	Abercynon	ST 079956	106.0	FVVA	1957..90	1810	1236	574	1668	82	644	73	4.15	0.39	08/76	72.0	10.4	0.53
057005	Taff	Pontypridd	ST 079897	454.8	FVVA	1970–90	1857	1286	571	**1632**	**86**	713	73	18.54	2.29	08/76	293.3	40.1	3.43
057006	Rhondda	Trehafod	ST 054909	100.5	VA	1970..90	2183	1672	511	**2146**	**88**	1045	73	5.33	0.39	07/84	99.2	12.6	0.71
057007	Taff	Fiddlers Elbow	ST 089951	194.5	FVVA	1973..90	1725	1049	676	**1310**	**86**	690	76	6.47	0.79	08/76	126.6	15.2	1.29
057008	Rhymney	Llanedeyrn	ST 225821	178.7	FVVA	1973–90	1407	955	452	1262	82	512	73	5.41	**0.45**	**08/90**	90.8	12.6	0.72
057009	Ely	St Fagans	ST 121770	145.0	FVVA	1975–90	1350	933	417	**1147**	**86**	588	75	4.29	0.46	08/76	51.1	10.0	0.55
057010	Ely	Lanelay	ST 034827	39.4	VA	1974..90	1627	1129	498	1409	81	760	75	1.41	0.12	08/76	40.8	3.3	0.15
057011 *	Taf Fawr	Beacons Res	SN 987193	5.1	TP	1976..80		2028		2387	77	1886	78	0.33	0.03	08/76		0.8	0.03
057012 *	Garwnant	Llwynon Res	SO 004129	4.3	TP	1976..80		1617		1719	77	1471	78	0.22	0.01	08/76		0.6	0.01
057015	Taff	Merthyr Tydfil	SO 043068	104.1	FVVA	1978–90	1999	1012	987	1254	86	853	89	3.34	0.34	08/84	79.9	8.3	0.70
057016	Taf Fechan	Pontsticill	SO 060115	33.8	FV	1979–90	*2232*	608	1624	820	82	**314**	**89**	0.65	0.02	09/84		1.3	0.09
058001	Ogmore	Bridgend	SS 904794	158.0	FVVA	1963..90	1747	1265	482	1644	67	789	73	6.34	0.52	07/84	107.5	14.1	0.91
058002	Neath	Resolven	SN 815017	190.9	FVVA	1975..90	2034	1522	512	**1957**	**86**	845	76	9.21	0.40	08/76	186.9	23.3	0.67
058003 *	Ewenny	Ewenny Priory	SS 914780	62.9	VA	1962–65	1185	802	383	787	63	553	64	1.60	0.26	09/64	19.3	2.9	0.26
058005	Ogmore	Brynmenyn	SS 904844	74.3	FVVA	1970..90	1935	1514	421	**1907**	**88**	985	76	3.57	0.28	07/84	45.5	7.8	0.51
058006	Mellte	Pontneddfechan	SN 915082	65.8	FVVA	1971..90	2059	1457	602	1828	74	951	73	3.04	0.21	08/84		7.5	0.34
058007	Llynfi	Coytrahen	SS 891855	50.2	FVVA	1970..90	1812	1370	442	**1766**	**86**	908	73	2.18	0.24	07/84		4.8	0.33
058008	Dulais	Cilfrew	SN 778008	43.0	FVVA	1971..90	1782	1391	391	**1752**	**88**	904	76	1.90	0.16	08/84		4.6	0.24
058009	Ewenny	Keepers Lodge	SS 920782	62.5	FVVA	1971–90	1347	913	434	**1183**	**88**	523	73	1.81	0.22	08/76		3.8	0.38
058010 *	Hepste	Esgair Carnau	SN 969134	11.0	FVVA	1975..81	*2398*	1451	947	1689	79	1081	76	0.51	0.04	08/76		1.5	0.03
058011	Thaw	Gigman Bridge	ST 017716	49.2	VA	1976–90	1170	636	534	**768**	**88**	**448**	**90**	0.99	0.09	08/84		2.3	0.14
059001	Tawe	Ynystanglws	SS 685998	227.7	VA	1957..90	1895	1650	245	**2411**	**86**	1054	76	11.91	0.57	09/59	229.2	29.1	1.38
059002	Loughor	Tir-y-dail	SN 623127	46.4	VA	1967..90	1534	1351	183	**1877**	**88**	833	76	1.99	0.20	08/84	74.6	4.8	0.30
060002	Cothi	Felin Mynachdy	SN 508225	297.8	VA	1961..90	1638	1202	436	1583	74	760	73	11.35	0.36	08/76	134.5	26.5	0.84
060003	Taf	Clog-y-Fran	SN 238160	217.3	VA	1965..90	1423	1059	364	1402	74	678	73	7.30	0.36	08/76	68.1	16.4	0.77
060004 *	Dewi Fawr	Glasfryn Ford	SN 290175	40.1	VA	1969..81	1462	978	484	1288	74	580	73	1.24	0.05	08/76	17.9	2.9	0.11
060005	Bran	Llandovery	SN 771343	66.8	VA	1968..90	1499	1047	452	1518	74	660	76	2.22	0.03	08/76	40.6	5.4	0.11
060006	Gwili	Glangwili	SN 431220	129.5	VA	1968–89	1613	1190	423	1571	74	671	73	4.89	0.21	07/84	94.7	11.3	0.41
060007	Tywi	Dolau Hirion	SN 762362	231.8	VA	1968..89	1694	1319	375	2117	77	858	76	9.69	1.12	09/71	163.5	22.1	1.87
060008	Tywi	Ystradffin	SN 786472	89.8	C	1983–89		1430		1597	86	1322	84	4.07	0.87	10/84		8.9	0.90
060009 *	Sawdde	Felin-y-cwm	SN 712266	81.1	FV	1970..76	1537	1210	327	1885	74	787	73	3.11	0.47	08/75	136.1	6.9	0.40
060010	Tywi	Nantgaredig	SN 485206	1090.4	FVVA	1958..90	*1573*	1109	464	1565	60	651	76	38.35	1.52	09/59		89.9	3.63
060012 *	Twrch	Ddol Las	SN 650440	20.7	VA	1970..81	1567	1100	467	1403	74	715	76	0.72	0.01	08/76	17.9	1.7	0.04

Station number	River name	Station name	Grid reference	Catchment area (sq km)	Station type	Period of record	Mean ann. rainfall (mm)	Mean ann. runoff (mm)	Mean ann. loss (mm)	Max. ann. runoff (mm)	Year of max.	Min. ann. runoff (mm)	Year of min.	Mean flow (m^3s^{-1})	Min. mon. flow (m^3s^{-1})	Month/Year of min.	Mean ann. flood (m^3s^{-1})	10 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
060013 *	Cothi	Pt Ynys Brechfa	SN 537301	261.6	VA	1971-76	1494	984	510	1425	74	644	73	8.16	0.62	08/75	133.9	20.2	0.71
061001 *	West Cleddau	Prendergast Mill	SM 954177	197.6	VA	1965..73	1276	837	439	1010	66	704	71	5.24	0.72	10/69	50.8	11.0	1.00
061002	East Cleddau	Canaston Bridge	SN 072153	183.1	VA	1960..90	1441	1030	411	**1430**	**86**	693	73	5.98	0.81	07/62	81.1	13.1	0.97
061003	Gwaun	Cilrhedyn Bridge	SN 005349	31.3	VA	1969..89	1532	1121	411	1402	77	808	73	1.11	0.07	08/76	16.7	2.4	0.15
061004	West Cleddau	Redhill	SM 942184	197.6	VA	1965..89	*1293*	859	434	1102	81	568	73	5.38	0.37	08/76		12.3	0.65
062001	Teifi	Glan Teifi	SN 244416	893.6	VA	1959..90	1349	999	350	1349	74	666	64	28.30	1.07	09/59	197.3	63.9	2.92
062002 *	Teifi	Llanfair	SN 433406	510.0	VA	1971..81	*1446*	988	458	1367	74	641	76	15.98	0.63	08/76	142.0	32.7	1.20
063001	Ystwyth	Pont Llolwyn	SN 591774	169.6	VA	1963..90	1485	1088	397	1446	81	703	76	5.85	0.18	08/76	98.4	13.8	0.58
063002 *	Rheidol	Llanbadarn Fwr	SN 601804	182.1	VA	1965..84	1790	1544	246	1933	81	1079	76	8.91	1.21	07/84	82.8	18.2	1.90
063003 *	Wyre	Llanrhystyd	SN 542698	40.6	VA	1970..79	*1085*	760	325	1061	74	597	75	0.98	0.04	07/76	30.5	2.5	0.05
064001	Dyfi	Dyfi Bridge	SH 745019	471.3	VA	1962..90	1915	1521	394	**1775**	**86**	1227	84	22.73	0.82	07/84	304.2	53.2	2.04
064002	Dysynni	Pont-y-Garth	SH 632066	75.1	VA	1966..90	2195	1890	305	**2282**	**88**	1517	84	4.50	0.28	07/84	65.7	9.6	0.49
064006	Leri	Dolybont	SN 635882	47.2	C	1960-90	*1504*	743	761	1268	79	165	69	1.11	0.03	06/70		2.9	0.04
065001	Glaslyn	Beddgelert	SH 592478	68.6	VA	1961..90	3097	2654	443	3191	80	1924	68	5.77	0.31	08/76	85.5	13.3	0.52
065004	Gwyrfai	Bontnewydd	SH 484599	47.9	C	1970..90	2212	1520	692	**1862**	74	1186	76	2.31	0.14	08/76		5.3	0.29
065005	Erch	Pencaenewydd	SH 400404	18.1	C	1973-90	1409	1058	351	**1288**	**86**	749	73	0.61	0.06	08/76		1.3	0.09
065006	Seiont	Peblig Mill	SH 493623	74.4	VA	1976..90	2411	1956	455	**2173**	**86**	1642	84	4.61	0.41	08/76		10.5	0.59
065007	Dwyfawr	Garndolbenmaen	SH 499429	52.4	CC	1975-90	2092	1517	575	**1783**	**87**	1097	76	2.52	0.10	07/84		5.7	0.23
066001	Clwyd	Pont-y-cambwll	SJ 069709	404.0	VA	1959..90	910	473	437	670	60	225	64	6.06	0.51	08/76	51.9	13.7	0.89
066002 *	Elwy	Pant yr Onen	SJ 021704	220.0	VA	1961-74	1119	642	477	777	67	393	64	4.48	0.33	07/62	80.5	10.1	0.45
066003	Aled	Bryn Aled	SH 957703	70.0	CC	1963..89	*1190*	644	546	787	81	383	64	1.43	0.09	09/89	28.8	3.5	0.20
066004 *	Wheeler	Bodfari	SJ 105714	62.9	C	1970-76	823	362	461	449	70	270	75	0.72	0.19	08/76		1.3	0.25
066005 *	Clwyd	Ruthin Weir	SJ 122592	95.3	MIS	1971..76	897	392	505	517	74	286	75	1.19	0.01	08/76		3.0	0.05
066006	Elwy	Pont-y-Gwyddel	SH 952718	194.0	VA	1973-90	1223	680	543	828	74	473	75	4.18	0.24	08/76		10.6	0.33
066008	Aled	Aled Isaf Res	SH 915598	11.6	TP	1977-89	*1363*	427	936	593	83	**321**	**86**	0.16	**0.02**	**05/86**		0.3	0.02
066011	Conwy	Cwm Llanerch	SH 802581	344.5	VA	1964..90	2214	1666	548	**2056**	**86**	1216	71	18.20	0.65	07/84	374.8	44.8	1.24
067001	Dee	Bala	SH 942357	261.6	MIS	1957-90	1844	1530	314	1924	74	1086	76	12.69	1.06	06/61		29.6	2.20
067002 *	Dee	Erbistock	SJ 357413	1040.0	VA	1937-70	1406	951	455	1352	54	627	64	31.35	3.05	09/49	294.8	72.9	4.17
067003	Brenig	Llyn Brenig O/f	SH 974539	20.2	TP	1922..90	1318	851	467	**1375**	**88**	169	77	0.55	0.03	09/59	11.7	1.4	0.05
067005 *	Ceiriog	Brynkinalt Weir	SJ 295373	113.7	CB	1956-76	1264	830	434	1276	60	470	64	2.99	0.18	08/76	34.0	6.8	0.44
067006	Alwen	Druid	SJ 042436	184.7	VA	1960-90	1321	844	477	1092	74	581	64	4.94	0.39	08/76	79.8	11.3	0.63
067007 *	Dee	Glyndyfrdwy	SJ 155428	728.0	VA	1964-69	1563	1070	493	1208	67	1088	68	24.70	4.73	06/64	237.1	57.8	6.07
067008	Alyn	Pont-y-Capel	SJ 336541	227.1	CC	1965-90	919	332	587	420	69	176	75	2.39	0.29	08/76	25.8	5.6	0.47
067009	Alyn	Rhydymwyn	SJ 206667	77.8	FL	1965..90	987	332	655	396	79	74	75	0.82	**0.00**	**09/90**	8.9	2.0	
067010 *	Gelyn	Cynefail	SH 843420	13.1	CC	1966-75	2279	1500	779	1952	74	1201	69	0.62	0.06	06/75	16.8	1.6	0.06
067011 *	Aberderfel	Nant Aberderfel	SH 851392	3.7	CB	1967..81		835		1602	67	324	75	0.10	>0.00	08/76		0.2	>0.00
067013 *	Hirnant	Plas Rhiwedog	SH 946349	33.9	VA	1967..76	1775	1152	623	1405	74	742	76	1.24	0.04	08/76	27.5	2.8	0.11
067015	Dee	Manley Hall	SJ 348415	1019.3	CC	1937-90	1402	958	444	1380	54	633	64	30.98	3.05	09/49		70.8	5.16
067017	Tryweryn	Llyn Celyn O/f	SH 880399	59.9	CB	1969-90	2125	1880	245	2306	74	1350	71	3.57	0.35	11/76		9.0	0.39
067018	Dee	New Inn	SH 874308	53.9	VA	1969-90	1932	1805	127	2461	74	1249	76	3.09	0.14	07/84	65.6	7.9	0.22
067025 *	Clywedog	Bowling Bank	SJ 396483	98.6	C	1976-84	*879*	472	407	546	79	408	76	1.48	0.36	08/76		3.0	0.50
067026	Dee	Eccleston Ferry	SJ 415612	1816.8		1974-86	*1139*	663	476	794	74	451	75	38.19	8.22	08/76		89.7	10.24
067029	Trystion	Pen-y-felin Fawr	SJ 066405	12.3	TP	1977..86		826		887	79	836	78	0.32	0.01	08/83		0.8	0.02

Hydrometric Statistics

	Period	Rainfall (mm)	% of pre-1986	Runoff (mm)	% of pre-1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
055002 **Wye at Belmont** C.A: 1895.9 km^2	**35..85**	**1225**		**758**		**45.59**	**948.6**	**04/12 1960**	**2.14**	**01/09 1984**	**109.3**	**26.03**	**6.06**
M.A: NRA-WEL Level: 46m Local Number:													
F.A.R: S B.F.I: .46 Sensitivity: 3.3	1986	1382	113	959	127	57.66	486.4	19/11	8.54	30/09	145.7	32.30	9.19
Comment: Channel control velocity-area station, width at bankfull approx. 49m; cableway span 62m. Embankment built on the left extends flood containment. Severe weed growth problems. Originally, stages taken from 1908 at Hereford, 1.2km d/s; flows were measured at current site. Prior to 1932, data unreliable. Moderate flow modification. # Above Erwood (55007) are wet uplands draining Palaeozoic rocks; the lower third is a narrow corridor draining Old Red Sandstone marls and subordinate glacial gravels, which supports arable farming.	1987	1185	97	771	102	46.37	466.6	27/03	9.01	11/09	106.8	29.60	12.10
	1988	1285	105	881	116	52.82	422.8	03/01	10.10	25/06	110.9	36.54	12.99
	1989	1268	104	757	100	45.49	420.7	21/12	4.33	08/08	121.0	17.49	4.82
	1990	1294	106	743	98	44.67	497.2	08/02	3.72	17/09	119.5	15.94	4.21
055007 **Wye at Erwood** C.A: 1282.1 km^2	**37..85**	**1380**		**883**		**35.88**	**801.6**	**08/02 1946**	**1.41**	**29/08 1984**	**90.5**	**18.84**	**4.42**
M.A: NRA-WEL Level: 106m Local Number:													
F.A.R: SPE B.F.I: .41 Sensitivity: 18.8	1986	1567	114	1149	130	46.72	**832.6**	**18/11**	4.36	16/07	118.7	23.62	5.19
Comment: Velocity-area station with a massive rock bar as a control. Bankfull width approx. 64m, cableway span 81m. All but the highest flows contained. Substantial flow modification from regulation and abstraction from the Elan, PWS and sewage. Some naturalised sequences available. # Large wet upland catchment draining metamorphosed Palaeozoic sediments and an igneous complex. Summit levels exceed 600m. Moorland, forestry and sheep grazing.	1987	1336	97	921	104	37.42	683.4	27/03	4.31	28/08	92.1	21.23	5.86
	1988	1475	107	1089	123	44.15	579.4	02/01	5.36	25/06	97.5	28.51	8.15
	1989	1419	103	958	108	38.96	513.3	24/12	3.45	18/07	101.3	13.74	4.35
	1990	1491	108	938	106	38.14	737.9	07/02	4.03	14/06	105.6	14.27	4.61
055008 **Wye at Cefn Brwyn** C.A: 10.6 km^2	**51..85**	*2418*		**2051**		**0.69**	**48.9**	**05/08 1973**	**0.02**	**11/06 1963**	**1.6**	**0.36**	**0.07**
M.A: IH Level: 341m Local Number: 101													
F.A.R: N B.F.I: .32 Sensitivity: 15.7	1986	2834	117	2325	113	0.78	23.4	04/03	0.05	02/03	1.8	0.35	0.07
Comment: 3-bay Crump profile weir (no divide piers), divide plates installed 1962; concrete piers built 1969, low crest 2.43m broad, high crests total 9.13m broad. Very steep channel, u/s accretion needs regular clearing. Early record needs treating with care. Natural regime. Operated as an IH experimental basin since 1968 (15 minute flow data plus extensive hydrometeorological database resides at IH). # Small, high relief, very wet (>2000mm) catchment, grassland on peat overlying weather resistant Silurian slates and shales. Very responsive.	1987	2357	97	2038	99	0.68	20.0	18/10	0.07	10/05	1.6	0.35	0.11
	1988	2574	106	2215	108	0.74	22.6	25/09	0.05	24/06	1.6	0.45	0.08
	1989	2399	99	1912	93	0.64	27.7	28/10	0.03	24/06	1.7	0.29	0.05
	1990	2744	113	2100	102	0.70					1.7	0.34	0.06

		Period	Rainfall (mm)	% of pre-1986	Runoff (mm)	% of pre-1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
055012	**Irfon at Cilmery** C.A: 244.2 km²	**66..85**	**1641**		**1315**		**10.18**	**264.6**	**21/12 1985**	**0.15**	**27/08 1976**	**25.1**	**5.89**	**0.77**
M.A: NRA-WEL	Level: 136m Local Number:													
F.A.R: N	B.F.I: .39 Sensitivity: 11.6	1986	1912	117	1491	113	11.54	**276.8**	**18/11**	0.41	24/07	28.3	5.72	0.62
Comment: Velocity-area station, initially with a gravel shoal control, improved in 1979 by installing a 25m wide Crump profile Flat V weir. Cableway spans 44m. Above about 3m the right bank floodplain is inundated. Natural catchment. # Headwaters drain the very wet Tywi Forest area on indurated, Ordovician sediments. The middle and lower reaches are on relatively more permeable Silurian rocks. Responsive.		1987	1545	94	1184	90	9.17	**300.4**	**18/10**	0.56	31/08	19.7	4.62	0.99
		1988	1744	106	1299	99	10.03	168.0	02/01	0.81	25/06	22.3	6.01	1.50
		1989	1709	104	1186	90	9.18	171.2	28/10	0.21	06/08	25.4	3.06	0.33
		1990	1812	110	1406	107	10.88	**373.4**	**07/02**	0.46	16/09	29.0	3.92	0.63
055013	**Arrow at Titley Mill** C.A: 126.4 km²	**66-85**	**1001**		**610**		**2.44**	**64.0**	**02/01 1982**	**0.13**	**26/08 1976**	**5.6**	**1.55**	**0.32**
M.A: NRA-WEL	Level: 129m. Local Number:													
F.A.R: N	B.F.I: .56 Sensitivity: 10.8	1986	1049	105	706	116	2.83	**101.1**	**10/01**	0.26	20/08	6.9	1.76	0.31
Comment: Velocity-area station. Low flow control is a stable riffle; otherwise a three-bay road bridge 50m d/s is the control. Gets out of bank but not bypassed. Natural catchment. # Headwaters of moderate relief, draining durable Silurian slates and shales; otherwise, the catchment is underlain by Old Red Sandstone marls. Station is in a transition zone between upland plateau supporting sheep grazing and the more productive lowlands.		1987	938	94	542	89	2.17	37.9	04/04	0.19	15/09	4.7	1.43	0.21
		1988	1028	103	551	90	2.20	20.3	23/01	0.46	17/08	5.3	1.37	0.63
		1989	1031	103	528	87	2.11	39.8	24/12	0.15	17/10	4.8	0.89	0.17
		1990	962	96	471	77	1.89	53.1	27/01	**0.09**	**28/09**	5.5	0.47	0.14
055014	**Lugg at Byton** C.A: 203.3 km²	**66-85**	**1028**		**609**		**3.93**	**54.3**	**14/01 1968**	**0.35**	**27/08 1976**	**8.5**	**2.76**	**0.72**
M.A: NRA-WEL	Level: 124m Local Number:													
F.A.R: P	B.F.I: .67 Sensitivity: 9.1	1986	1055	103	692	114	4.46	35.3	10/01	0.78	21/08	11.0	2.96	0.83
Comment: Flat V Crump profile weir, 1:20 cross-slopes, 12.5m wide. Cableway span 21m. Before 1970 a stable riffle was the control. Above 2m left bank overtopped. Flow moderately modified by abstractions for PWS. # Headwaters drain Silurian rocks of the Radnor Forest. Impermeable bedrock is covered by extensive deposits of gravel in the valleys. This aquifer provides significant baseflow and moderates flood peaks. Mostly forestry and grazing.		1987	929	90	560	92	3.61	30.1	04/04	0.64	02/10	7.1	2.89	0.69
		1988	1009	98	613	101	3.94	26.0	24/01	1.28	30/06	8.2	2.53	1.46
		1989	994	97	529	87	3.41	31.0	21/12	0.44	17/10	8.0	1.75	0.49
		1990	994	97	552	91	3.56	35.6	28/01	0.38	15/09	9.7	1.30	0.41
055018	**Frome at Yarkhill** C.A: 144.0 km²	**68..85**	**723**		**274**		**1.25**			**0.02**	**26/08 1976**	**2.8**	**0.64**	**0.16**
M.A: NRA-WEL	Level: 55m Local Number:													
F.A.R: E	B.F.I: .50 Sensitivity: 13.2	1986	772	107	305	111	1.39			0.22	17/10	3.5	0.73	0.25
Comment: Velocity-area station using a road bridge with a flat, insensitive invert and an adjacent box culvert as low and medium range controls. Broad floodplains operate above 2m when the Lodon tributary may bypass station. Natural catchment. # D/s of 55028 (Bishops Frome) lithology changes from Old Red Sandstone to ORS marls. Subdued relief, lowish rainfall. Entirely rural, predominantly arable farming with livestock on higher ground.		1987	673	93	261	95	1.19			0.12	14/09	2.5	0.77	0.14
		1988	665	92	235	86	1.07			0.21	11/09	2.4	0.49	0.24
		1989	688	95	199	73	0.91			0.07	14/10	1.7	0.37	0.08
		1990	630	87	196	72	0.90			0.08	23/07	1.9	0.21	0.10
055021	**Lugg at Butts Bridge** C.A: 371.0 km²	**69..85**	**913**		**495**		**5.82**	**52.1**	**26/05 1969**	**0.44**	**15/08 1976**	**13.1**	**3.68**	**1.00**
M.A: NRA-WEL	Level: 67m Local Number:													
F.A.R: P	B.F.I: .65 Sensitivity: 11.1	1986	942	103										
Comment: Velocity-area station with rough stone control (at low flows). Station rebuilt in 1984; width at bankfull - 21 m. # Headwaters drain Radnor Forest (developed on Silurian formations). Subdued relief in the lower valley (mostly ORS). Impervious catchment but extensive valley gravels provide some baseflow.		1987	833	91	450	91	5.30	48.0	04/04	0.46	05/09	10.5	4.61	0.59
		1988	885	97	477	96	5.60	34.8	24/01	1.69	09/07	11.5	3.66	2.13
		1989	880	96	408	82	4.80	46.5	21/12	**0.25**	**17/10**	11.9	2.61	0.29
		1990	847	93	347	70	4.08	33.2	27/01	0.46	17/08	9.6	2.27	0.59
055023	**Wye at Redbrook** C.A: 4010.0 km²	**36-85**	**1023**		**560**		**71.20**	**905.4**	**20/03 1947**	**3.43**	**28/08 1976**	**166.5**	**43.94**	**11.73**
M.A: NRA-WEL	Level: 9m Local Number:													
F.A.R: SPE	B.F.I: .55 Sensitivity: 2.2	1986	1120	109	747	133	94.94	539.4	20/11	10.64	19/07	237.6	62.87	13.24
Comment: Channel control velocity-area station replacing Cadora (55001, 1937-71; 4040 sq. km.) which was tidally affected. All but extreme floods contained. Severe summer weed growth problems. Flow regime moderately modified by exports and regulation. Some naturalised data available. # Very large catchment of mixed Palaeozoic geology, Ordovician to Carboniferous, wet in west, dry in east and south. Moorland, forestry and grazing on the higher ground; arable practice in lower reaches. Little industrial development.		1987	962	94	599	107	76.19	541.8	28/03	6.24	31/08	161.9	52.11	13.63
		1988	1015	99	652	116	82.68	537.9	03/01	15.54	25/06	194.4	53.38	19.78
		1989	1034	101	565	101	71.80	554.6	26/12	4.44	10/09	198.5	29.93	6.32
		1990	1016	99										
055025	**Llynfi at Three Cocks** C.A: 132.0 km²	**70-85**	**973**		**532**		**2.23**	**160.1**	**27/12 1979**	**0.04**	**27/08 1976**	**5.2**	**1.39**	**0.19**
M.A: NRA-WEL	Level: 88m Local Number:													
F.A.R: N	B.F.I: .57 Sensitivity: 15.6	1986	1103	113	657	123	2.75	42.5	18/11	0.24	17/10	6.4	1.73	0.31
Comment: Velocity-area station with an informal broad-crested, asymmetrical Flat V weir enhancing the natural rock bar control. Cableway section formalised within the abutments of a former railway bridge. Natural catchment. # Headwaters drain the Old Red Sandstone of the Black Mountains; lower reaches expose ORS marls which have lower relief and support arable farming. Contains Llangorse Lake.		1987	938	96	477	90	2.00	54.2	26/03	0.17	04/09	4.3	1.44	0.19
		1988	958	98	498	94	2.08	41.5	01/01	0.41	25/08	5.3	1.22	0.50
		1989	1028	106	489	92	2.05	85.7	24/12	0.10	07/09	5.1	0.97	0.12
		1990	997	102	703	132	2.94	**167.0**	**27/01**	0.05	28/09	9.3	0.43	0.07
055026	**Wye at Ddol Farm** C.A: 174.0 km²	**37..85**	**1617**		**1156**		**6.38**	**252.2**	**05/08 1973**	**0.08**	**15/08 1983**	**15.4**	**3.52**	**0.55**
M.A: NRA-WEL	Level: 193m Local Number:													
F.A.R: P	B.F.I: .36 Sensitivity: 10.4	1986	1858	115	1320	114	7.28	177.6	18/11	0.29	03/10	17.1	3.80	0.39
Comment: Initially, gauged nearby at Rhayader (55005,1937-69); resited as velocity-area station with a rock bar as control. Informal Flat V installed 1972. Bankfull width - 30m. Cableway span 54m. All but exceptional floods contained. Lowest g/s on Wye unaffected by large water supply res (flows from the Elan valley complex enter just d/s). # Wet, upland catchment draining impermeable, metamorphosed Silurian sediments. High relief, headwaters reach over 600m, and feature steep sided and high gradient streams. Moorland and forestry.		1987	1584	98	1077	93	5.94	164.6	18/10	0.17	31/08	13.2	3.22	0.47
		1988	1754	108	1243	108	6.84	119.1	25/09	0.28	25/06	15.1	4.12	0.78
		1989	1627	101	1324	115	7.30	**300.0E**	**28/10**	0.21	08/08	15.4	2.58	0.27
		1990	1755	109	1418	123	7.82	188.5	29/01	0.36	09/08	19.6	3.22	0.59
055028	**Frome at Bishops Frome** C.A: 77.7 km²	**71..85**	**718**		**309**		**0.76**	**139.5**	**30/12 1981**	**0.05**	**19/08 1976**	**1.6**	**0.40**	**0.11**
M.A: NRA-WEL	Level: 76m Local Number:													
F.A.R:	B.F.I: .50 Sensitivity: 10.8	1986	797	111	344	111	0.85	12.8d	10/01	0.17	17/10	1.8	0.45	0.18
Comment: Up to 1975, velocity-area station; latterly, Flat V Crump profile weir, 5m wide. Cableway span 10m. Steep banks do not contain the flood flows; some throttling by d/s road bridge whose soffit is below bankfull. Natural catchment. # Linear, rural catchment, headwaters cutting into the Old Red Sandstone of the Bromyard plateau, the north-eastern and drier area of the Wye catchment. Superficial deposits confined to the valleys. Livestock farming in the hills, arable otherwise.		1987	685	95	303	98	0.75	50.3	04/04	0.10	01/10	1.4	0.43	0.12
		1988	685	95	269	87	0.66	50.6	02/01	0.12	08/10	1.4	0.29	0.15
		1989	692	96	221	72	0.54	16.0	24/12	0.07	09/09	0.9	0.23	0.08
		1990	640	89	269	87	0.66	48.3	28/01	0.05	10/09	1.3	0.18	0.06
055029	**Monnow at Grosmont** C.A: 354.0 km²	**48..85**	**1013**		**525**		**5.89**	**201.6**	**24/01 1960**	**0.28**	**28/08 1976**	**13.3**	**3.18**	**0.69**
M.A: NRA-WEL	Level: m Local Number:													
F.A.R:	B.F.I: .59 Sensitivity: 9.0	1986	1059	105	658	125	7.39	147.6	10/01	0.92	27/07	16.4	4.52	1.13
Comment: Velocity-area station with an informal Flat V weir enhancing the natural rock step control. Approx. 30m wide at bankfull. Cableway spans 42m. Replaced Kentchurch, 450m u/s (55009, 1948-72) which suffered from shoaling. Natural catchment. # Five parallel tributaries drain SE down the deeply dissected Old Red Sandstone plateau of the Black Mountains, the northernmost exposing the ORS marls. Moorland headwaters, arable lower reaches.		1987	859	85	475	90	5.34	115.6	26/03	0.72	15/09	11.1	3.91	0.79
		1988	889	88	501	95	5.61	99.2	02/01	1.31	26/08	13.3	3.11	1.50
		1989	953	94										
		1990	915	90	497	95	5.58	184.8	27/01	0.41	02/11	15.0	1.12	0.44

		Period	Rainfall (mm)	% of pre-1986	Runoff (mm)	% of pre-1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
055031	**Yazor Brook at Three Elms** C.A: 42.3 km²	**73-85**	**689**		**166**		**0.22**	**3.5**	**30/12 1981**	**0.00**	**25/07 1976**	**0.4**	**0.18**	**0.05**
M.A: NRA-WEL	Level: 58m Local Number:	1986	719	104	172	104	0.23	2.0	30/01	0.04	04/10	0.4	0.20	0.07
F.A.R: I	B.F.I: .55 Sensitivity: 18.4	1987	662	96	162	98	0.22	2.8	05/04	0.03	26/09	0.3	0.18	0.06
Comment: Flat V Crump profile weir, 1:5 cross-slopes, 2.5m wide. Gravel accretion causes rating variability, checked by current metering. Floods contained. Flows moderately affected by industrial abstractions from groundwater. # Low relief catchment containing urban development of western Hereford. Solid geology: Old Red Sandstone marls; extensively covered with glacial sands and gravel, which maintain baseflow and are developed as an aquifer. Arable agriculture and light industry.		1988	633	92	152	92	0.20	1.4	02/01	0.05	25/06	0.4	0.16	0.07
		1989	729	106										
		1990	632	92	188	113	0.25					0.5	0.16	0.01
055032	**Elan at Elan Village** C.A: 184.0 km²	**08-85**	*1822*		**872**		**5.09**	**331.9**	**11/11 1970**	**0.13**	**07/05 1984**	**13.8**	**1.59**	**1.41**
M.A: NRA-WEL	Level: m Local Number:	1986			1126	129	6.57	136.9	18/11	0.67	11/02	20.5	1.43	0.78
F.A.R: SRP	B.F.I: .29 Sensitivity:	1987			847	97	4.94					13.0	1.46	0.79
Comment: Flat V Crump profile weir 23m wide, 350m d/s of Caban dam; cableway spans 40m. Entirely regulated apart from overspill. 5 u/s reservoirs. Circa 4 m^3s^{-1} to ST-NRA. Releases for compensation (1.5 m^3s^{-1}), regulation and freshets. Monthly naturalised flows available for certain periods from older station. # Very wet (>1800mm), high relief catchment draining predominantly Silurian shales and slates. Forestry and moorland.		1988			1052	121	6.12	101.4	02/01	0.71	20/06	15.1	1.34	0.77
		1989			880	101	5.13	94.1	21/12	0.77	04/05	14.3	2.22	0.81
		1990												
055033	**Wye at Gwy flume** C.A: 3.9 km²	**69..85**			**2180**		**0.53**	**16.7d**	**24/02 1969**	**0.00**	**04/07 1977**	**0.9**	**0.17**	**0.04**
M.A: IH	Level: m Local Number: 105	1986	2883		2471	113	0.31	9.7	09/01	0.03	02/07	0.7	0.14	0.04
F.A.R: N	B.F.I: .52 Sensitivity:	1987	2357		2172	100	0.27	8.8	18/10	0.04	14/12	0.6	0.15	0.06
Comment: Steep stream flume structure designed by the Hydraulics Research station. Natural catchment nested within 55008. Researchers should note the primary 15 minute dataset resides with the Institute of Hydrology.		1988	2637		2381	109	0.29	10.1	25/09	0.04	14/06	0.6	0.17	0.06
		1989	2555											
		1990	2902											
055034	**Cyff at Cyff flume** C.A: 3.1 km²	**73..85**			**2055**		**0.20**	**6.2**	**31/01 1983**	**0.00**	**08/09 1976**	**0.5**	**0.10**	**0.02**
M.A: IH	Level: 1176m Local Number: 107	1986	2834		2317	113	0.23	6.1	04/03	0.02	03/10	0.5	0.10	0.02
F.A.R: N	B.F.I: .30 Sensitivity:	1987	2305		2063	100	0.20	6.0	18/10	0.02	10/05	0.5	0.10	0.03
Comment: Steep stream flume structure designed by the Hydraulics Research station. Natural catchment nested within 55008. Researchers should note the primary 15 minute dataset resides with the Institute of Hydrology.		1988	2545		2238	109	0.22	6.1	25/09	0.01	23/06	0.5	0.13	0.02
		1989	2420											
		1990	2656											
055035	**Iago at Iago flume** C.A: 1.1 km²	**73-85**			**1892**		**0.07**	**2.1**	**10/12 1980**	**0.00**	**17/12 1975**	**0.2**	**0.03**	**0.01**
M.A: IH	Level: m Local Number: 109	1986	2815		2235	118	0.08	2.1	**29/12**	0.01	01/10	0.2	0.03	0.01
F.A.R: N	B.F.I: .29 Sensitivity:	1987	2323		2021	107	0.07	1.8	18/10	0.01	08/07	0.2	0.03	0.01
Comment: Steep stream flume structure designed by the Hydraulics Research station. Natural catchment nested within 55008. Researchers should note the primary 15 minute dataset resides with the Institute of Hydrology.		1988	2606											
		1989	2522											
		1990	2839											
056001	**Usk at Chain Bridge** C.A: 911.7 km²	**57-85**	**1389**		**957**		**27.67**	**945.0**	**27/12 1979**	**1.61**	**27/08 1976**	**63.5**	**16.65**	**4.34**
M.A: NRA-WEL	Level: 23m Local Number:	1986	1543	111	1151	120	33.28	480.3	19/11	3.90	27/07	75.4	20.64	4.38
F.A.R: SRP	B.F.I: .50 Sensitivity: 5.8	1987	1279	92	894	93	25.85	526.8	27/03	3.26	03/09	57.4	16.28	4.02
Comment: Velocity-area station; permanent cableway. Low flows measured at complementary station downstream (56010 - Trostrey weir). There is a partial impact on flows resulting from three large existing public water supply reservoirs in upper catchment. Intake to canal upstream of gauge. Some naturalised flows available. # Geology - mainly Old Red Sandstone. Hill farming in upper areas, with dairy or livestock farming below; forest 3%. Peaty soils in uplands, seasonally wet.		1988	1366	98	991	104	28.57	401.2	02/01	6.69	25/06	62.5	17.82	8.53
		1989	1391	100	950	99	27.46	461.4	24/12	2.76	08/08	68.2	11.85	2.93
		1990	1379	99	965	101	27.89	627.4	07/02	2.50	28/08	75.0	10.27	3.40
056002	**- Ebbw at Rhiwderyn** C.A: 216.5 km²	**57..85**	**1490**		**1056**		**7.25**	**246.5**	**27/12 1979**	**0.99**	**08/09 1961**	**16.2**	**4.70**	**1.55**
M.A: NRA-WEL	Level: 31m Local Number:	1986	1760	118	1304	123	8.95	109.9	18/11	1.79	17/10	18.6	6.10	2.15
F.A.R: SPG	B.F.I: .58 Sensitivity: 8.3	1987	1371	92	947	90	6.50	121.8	26/03	1.35	31/08	14.4	4.55	1.51
Comment: Velocity-area station. Low flow Flat V weir (width: 14.5m, cross-slope 1:20) installed in 1976. Discharges up to MAF contained. Small water supply reservoirs in uplands. Some groundwater abstractions in valley. Drainage water from old coalmines can also influence flows. # Geology - mainly Coal Measures. Livestock farming on hills. Forest: 7%. Soils mainly have permeable substrates.		1988	1543	104	1167	111	7.99	97.7	02/01	2.45	29/06	16.8	5.13	3.11
		1989	1515	102	1040	98	7.14	109.5	24/12	1.12	10/09	18.3	3.82	1.20
		1990	1524	102	988	94	6.78	**249.5**	**07/02**	**0.73**	**28/09**	16.8	2.49	0.87
056005	**Lwyd at Ponthir** C.A: 98.1 km²	**66-85**	**1429**		**989**		**3.08**	**100.0**	**27/12 1979**	**0.34**	**22/08 1976**	**6.8**	**1.96**	**0.65**
M.A: NRA-WEL	Level: 15m Local Number:	1986	1664	116	1205	122	3.75	53.8	10/01	0.88	26/07	7.8	2.63	0.95
F.A.R: SPGI	B.F.I: .55 Sensitivity: 10.6	1987	1309	92	898	91	2.79	53.2	26/03	0.62	31/08	5.6	1.98	0.69
Comment: Compound Crump weir (three crests, each 6.096m wide). Calibration assumes modularity. Flows <176 m^3s^{-1} contained. Central crest subject to occasional blockage by debris. Small reservoirs for industrial and public water supply in upper reaches. Some groundwater abstraction in valley where there is augmentation by drainage water from old mines. # Geology - mainly Coal Measures. Generally livestock farming with urban development in lower areas. Forest 5%. Peaty soils in uplands, seasonally wet.		1988	1512	106	1111	112	3.45	81.9	31/08	1.19	29/06	6.7	2.31	1.43
		1989	1475	103	991	100	3.08	45.6	24/02	0.46	17/10	7.5	1.65	0.49
		1990	1427	100	974	98	3.03	**129.1**	**07/02**	0.40	15/09	7.7	1.16	0.45
056007	**Senni at Pont Hen Hafod** C.A: 19.9 km²	**67..85**	**1914**		**1544**		**0.97**	**48.8**	**27/12 1979**	**0.03**	**26/08 1976**	**2.2**	**0.54**	**0.10**
M.A: NRA-WEL	Level: 220m Local Number:	1986	2303	120	2006	130	1.27	41.0	18/11	0.08	27/07	3.1	0.77	0.13
F.A.R: N	B.F.I: .37 Sensitivity:	1987	1880	98	1552	101	0.98	35.2	26/03	0.08	02/09	2.2	0.48	0.12
Comment: Crump weir (width: 7.01m). Fish pass removed in 1973. Theoretical calibration confirmed by gaugings. Full range and modular. # Geology - Old Red Sandstone. Natural catchment draining from high rainfall, upland area. Livestock farming area with mainly peaty soils, seasonally wet. Forest: 5%. Catchment fully contained in the Brecon Beacons National Park.		1988	2018	105	1774	115	1.12	26.4	01/01	0.19	28/06	2.5	0.67	0.24
		1989	1907	100	1584	103	1.00	27.2	24/12	0.05	27/07	2.5	0.33	0.07
		1990	2002	105	1544	100	0.97	34.7	07/02	0.08	16/06	2.3	0.41	0.10
056013	**Yscir at Pontaryscir** C.A: 62.8 km²	**72-85**	*1428*		**950**		**1.89**	**85.0**	**06/10 1985**	**0.07**	**27/08 1976**	**4.5**	**1.15**	**0.18**
M.A: NRA-WEL	Level: 161m Local Number:	1986	1587	111	1114	117	2.22	34.0	18/11	0.23	27/07	5.4	1.36	0.27
F.A.R: N	B.F.I: .46 Sensitivity:	1987	1333	93	962	101	1.92	33.1	26/03	0.21	04/09	4.3	1.10	0.26
Comment: Crump weir (width: 9.0m) between old railway abutments. Calibration confirmed by gaugings. Full range. Rarely non-modular. # Geology Old Red Sandstone. Natural catchment draining from upland areas of Cambrian Hills. Mostly hill farming. Forest: 3%. Peaty soils in upper areas, seasonally wet.		1988	1448	101	1045	110	2.08	32.1	01/01	0.39	25/06	4.5	1.25	0.55
		1989	1442	101	966	102	1.92	34.2	24/12	0.13	07/09	4.5	0.68	0.15
		1990	1450	102	937	99	1.87	34.7	07/02	0.12	15/09	5.2	0.79	0.16
056016	**Caerfanell Outfall at Talybont Reservoir** C.A: 32.4 km²	**79-85**			**794**		**0.82**	**33.3**	**27/12 1979**	**0.04**	**11/08 1984**	**1.9**	**0.40**	**0.13**
M.A: NRA-WEL	Level: 143m Local Number:	1986			948	119	0.97	22.0	18/11	0.12	17/09	2.8	0.45	0.13
F.A.R: SR	B.F.I: .48 Sensitivity:	1987			549	69	0.56	13.9	27/03	0.08	05/09	1.1	0.38	0.11
Comment: Compound rectangular thin-plate weir (13.005m broad) immediately downstream of Talybont reservoir; a compensation flow station. # An Old Red Sandstone catchment in the Brecon Beacons National Park. Upland area with livestock farming, mainly peaty soils, seasonally wet. Forest: 30%.		1988			895	113	0.92	15.2	01/01	0.14	02/12	2.2	0.51	0.25
		1989												
		1990												
057004	**Cynon at Abercynon** C.A: 106.0 km²	**57..85**	**1799**		**1214**		**4.08**	**184.2**	**27/12 1979**	**0.28**	**23/08 1976**	**10.2**	**2.14**	**0.55**
M.A: NRA-WEL	Level: 81m Local Number:	1986	2151	120	1623	134	5.46	113.4	18/11	0.62	22/07	13.2	2.66	0.73
F.A.R: SE	B.F.I: .41 Sensitivity: 14.3	1987	1679	93	1212	100	4.08	122.8	26/03	0.47	18/08	9.9	1.85	0.55
Comment: Flat V weir (width: 14.24m; cross-slope 1:20) velocity-area station for high flows. Over-topped by extreme floods. Small impounding reservoirs for public water supply. Industrial areas in valley. # Geology - Coal Measures with Millstone Grit on northern boundary. Open cast coal abstraction in upper areas. Livestock farming in upland area of peaty soils, seasonally wet. Forest: 17%.		1988	1927	107	1421	117	4.76	81.8	02/01	0.86	24/06	11.4	2.47	1.13
		1989	1807	100	1253	103	4.21	73.9	18/02	**0.25**	**12/09**	11.7	1.46	0.37
		1990	1849	103	1278	105	4.30	120.9	07/02	0.36	28/09	11.2	1.51	0.47

		Period	Rainfall (mm)	% of pre-1986	Runoff (mm)	% of pre-1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
057005	**Taff at Pontypridd** C.A: 454.8 km²	**70-85**	*1834*		**1255**		**18.10**	**652.0**	**27/12 1979**	**1.70**	**23/08 1976**	**38.8**	**10.50**	**3.46**
M.A: NRA-WEL	Level: 45m Local Number:													
F.A.R: SGEI	B.F.I: .47 Sensitivity: 5.9	1986	2222	121	1632	130	23.54	454.9	18/11	3.87	17/10	54.5	13.62	4.34
Comment: Flat V weir (width: 32m; cross-slope 1:20) velocity-area station for high flows. Full range. Small impounding reservoir in upper catchment. Some groundwater abstractions and effluent returns in valleys. # Geology - mainly Coal Measures. Alluvium deposits in valleys. Mainly upland area with livestock farming on hills. Urban and industrial development in valleys. Mainly peaty soils on hills, seasonally wet.		1987	1727	94	1203	96	17.35	419.2	26/03	3.20	31/08	36.0	9.49	3.69
		1988	1966	107	1461	116	21.01	398.5	01/01	4.95	24/06	43.1	12.66	6.35
		1989	1832	100	1271	101	18.34	321.7	18/02	2.29	12/09	44.0	7.91	2.73
		1990	1890	103	1325	106	19.11	468.5	07/02	3.02	28/09	45.3	8.64	3.41
057006	**Rhondda at Trehafod** C.A: 100.5 km²	**70..85**	**2125**		**1598**		**5.09**	**206.4**	**27/12 1979**	**0.30**	**21/07 1984**	**11.9**	**2.80**	**0.67**
M.A: NRA-WEL	Level: 68m Local Number:													
F.A.R: SPGE	B.F.I: .42 Sensitivity: 15.5	1986	2680	126	2102	132	6.70	129.3	18/11	0.70	18/07	16.4	3.54	0.85
Comment: Velocity-area station; trapezoidal channel formalised in 1980 - bed width 18m. Full range. Flows affected by mine-water discharge above station. Impounding reservoir for public water supply in upper catchment. # Geology - Coal Measures with alluvium deposits in valleys. Upland area with livestock farming on hills. Urban and industrial development in valleys. 24% forested.		1987	2086	98	1710	107	5.45	121.5	29/12	0.63	28/08	12.6	2.72	1.01
		1988	2435	115	2152	135	6.84	113.2	01/01	1.08	24/06	15.5	3.85	1.70
		1989	2216	104	1654	104	5.27	96.8	14/03	0.51	12/09	13.4	2.07	0.60
		1990	2273	107	1666	104	5.31	95.2	07/02	0.60	16/06	13.5	2.40	0.83
057007	**Taff at Fiddlers Elbow** C.A: 194.5 km²	**73-85**	**1708**		**1030**		**6.35**	**320.5**	**27/12 1979**	**0.56**	**22/08 1976**	**15.1**	**3.50**	**1.22**
M.A: NRA-WEL	Level: 83m Local Number:													
F.A.R: SGEI	B.F.I: .49 Sensitivity: 9.4	1986	2052	120	1310	127	8.08	154.7	18/11	1.56	16/10	19.2	4.62	1.72
Comment: Flat V weir (width: 23m; cross-slope 1:20) velocity-area station for high flows. Full range. Flows affected by mine-water discharges upstream, also impounding reservoirs and industrial abstractions in valley. # Geology - Coal Measures with Millstone Grit and Carboniferous Limestone in northern area. Alluvium deposits in valleys. Mainly upland area with livestock. Peaty soils, seasonally wet. Forest 3%. 50% in Brecon Beacons National Park.		1987	1587	93	930	90	5.74	147.5	26/03	1.33	30/08	13.2	3.27	1.44
		1988	1774	104	1169	113	7.19	169.1	01/01	2.10	08/07	14.6	4.54	2.39
		1989	1664	97										
		1990	1741	102	1077	105	6.64	253.1	07/02	1.12	09/09	16.5	2.44	1.23
057008	**Rhymney at Llanedeyrn** C.A: 178.7 km²	**73-85**	**1378**		**933**		**5.29**	**147.3**	**27/12 1979**	**0.38**	**26/08 1976**	**12.1**	**3.14**	**0.79**
M.A: NRA-WEL	Level: 12m Local Number:													
F.A.R: SPGE	B.F.I: .50 Sensitivity: 11.1	1986	1679	122	1220	131	6.91	113.5	18/11	1.00	16/10	15.6	4.17	1.18
Comment: Flat V weir (width: 15m, cross-slope 1:20); velocity-area station for high flows. Full range. Impounding reservoirs, for public water supply, in upper catchment. Some groundwater abstraction and effluent returns. # Geology - mainly Coal Measures. Livestock farming on uplands; dairy and livestock farming in lower catchment. Urban and industrial development in the valleys. Forest 7%. Most of catchment has soils with permeable substrate; peaty soils on hills, seasonally wet.		1987	1329	96	896	96	5.08	110.5	27/03	0.71	28/08	12.2	3.05	0.83
		1988	1475	107	1079	116	6.10	103.4	02/01	1.23	24/06	13.3	3.63	1.54
		1989	1433	104	997	107	5.65	103.7	14/03	0.51	13/09	14.9	2.45	0.66
		1990	1444	105	860	92	4.88	**156.7**	**07/02**	**0.22**	**16/09**	12.7	1.44	0.28
057009	**Ely at St Fagans** C.A: 145.0 km²	**75-85**	**1330**		**917**		**4.22**	**68.1**	**11/03 1981**	**0.32**	**21/08 1984**	**9.7**	**2.65**	**0.53**
M.A: NRA-WEL	Level: m Local Number:													
F.A.R: EI	B.F.I: .49 Sensitivity: 12.7	1986	1586	119	1147	125	5.27	63.6	10/01	0.67	24/07	12.3	3.06	0.87
Comment: Flat V weir (width: 10.6m; cross-slope 1:20); velocity-area station for high flows. Full range. Flows affected by sewage works discharges upstream. Some early poorer quality - data available (station 57805; 1957-60). Some industrial abstractions. # Geology - mainly Coal Measures with some Millstone Grit in northern area; mixture of Trias, Lias, limestone and Old Red Sandstone to the south. Forest 6%. Lowland area with dairy farming. Soils have permeable substrate.		1987	1297	98	904	99	4.16	45.5	27/03	0.58	01/09	9.6	2.43	0.75
		1988	1418	107	1088	119	4.99	49.1	02/01	0.75	25/06	11.8	2.89	1.01
		1989	1344	101	859	94	3.95	56.4	14/03	0.46	10/09	10.3	1.91	0.53
		1990	1327	100	842	92	3.87	48.1	07/02	0.48	15/09	9.5	1.88	0.56
057010	**Ely at Lanelay** C.A: 39.4 km²	**74..85**	**1607**		**1127**		**1.41**	**70.5**	**19/09 1981**	**0.07**	**26/08 1976**	**3.2**	**0.80**	**0.15**
M.A: NRA-WEL	Level: 46m Local Number:													
F.A.R: EI	B.F.I: .43 Sensitivity: 22.0	1986	1893	118	1370	122	1.71	**95.3**	**09/01**	0.18	23/07	4.0	0.92	0.21
Comment: Velocity-area station with non-standard Flat V bed control (width: 7.94m; cross-slope 1:20). Now primarily a flood warning station. # Geology - Coal Measures. Lowland catchment. Dairy and livestock farming with urban and industrial development in the valley. Forest 8%. Soils have permeable substrate.		1987	1518	94	1023	91	1.28	33.0	11/11	0.14	31/08	3.2	0.67	0.18
		1988	1665	104	1221	108	1.52	37.5	01/01	0.17	24/06	3.6	0.78	0.29
		1989	1610	100	1005	89	1.26	60.1	14/03	0.09	23/06	3.2	0.51	0.11
		1990	1624	101	1004	89	1.25	29.3	25/12	0.11	28/05	3.4	0.57	0.14
057015	**Taff at Merthyr Tydfil** C.A: 104.1 km²	**78-85**	**2030**		**1003**		**3.31**	**140.1**	**27/12 1979**	**0.28**	**22/08 1984**	**8.6**	**1.52**	**0.76**
M.A: NRA-WEL	Level: 171m Local Number:													
F.A.R: SP	B.F.I: .40 Sensitivity: 11.4	1986	2233	110	1254	125	4.14	93.7	10/01	0.80	23/07	10.2	2.13	0.87
Comment: Flat V weir; velocity-area station for high flows. Full range. Flows affected by large direct public water supply reservoirs. # Geology - Millstone Grit and Carboniferous Limestone. Old Red Sandstone in upper areas. Upland area in Brecon Beacons National Park - livestock farming predominates; some urban development. Forest: 25%. Mainly peaty soils, seasonally wet.		1987	1763	87	858	86	2.83	85.5	29/12	0.70	02/09	6.4	1.39	0.79
		1988	1999	98	1093	109	3.60	110.7	01/01	0.87	29/06	7.7	1.98	0.98
		1989	1826	90	853	85	2.82	88.5	24/12	0.33	11/09	6.7	1.00	0.44
		1990	1944	96	1053	105	3.48	137.9	07/02	0.64	09/09	8.6	1.22	0.70
057016	**Taf Fechan at Pontsticill** C.A: 33.8 km²	**79-85**	**2232**		**645**		**0.69**	**43.4**	**27/12 1979**	**0.02**	**16/09 1984**	**1.3**	**0.28**	**0.13**
M.A: NRA-WEL	Level: 295m Local Number:													
F.A.R: SP	B.F.I: .42 Sensitivity: 12.5	1986			680	105	0.73	23.4	10/01	0.23	07/02	1.7	0.30	0.25
Comment: Flat V weir just downstream of Pontsticill Reservoir. Full range but no confirmatory high flow gaugings. Records compensation water and spill flows from Pontsticill public water supply reservoir, (see station 57001). # Geology - Old Red Sandstone with some Carboniferous Limestone. Steep upland catchment with livestock farming. Forest 32%. 100% in Brecon Beacons National Park. Peaty soils seasonally wet.		1987			362	56	0.39	7.6	04/04	0.18	12/09	0.4	0.29	0.21
		1988			696	108	0.74	26.8	02/01	0.24	22/02	1.9	0.29	0.24
		1989			315	49	0.34	13.6	24/12	**0.01**	**27/11**	0.3	0.23	0.03
		1990			742	115	0.80	32.6	07/02	0.18	26/06	2.2	0.23	0.20
058001	**Ogmore at Bridgend** C.A: 158.0 km²	**63-85**	**1740**		**1245**		**6.24**	**168.0**	**11/03 1981**	**0.33**	**20/08 1984**	**13.8**	**4.04**	**0.87**
M.A: NRA-WEL	Level: 14m Local Number:													
F.A.R: PEI	B.F.I: .48 Sensitivity: 11.2	1986	2019	116										
Comment: Velocity-area station with Flat V weir (1:20 cross-slope; installed in July 1975). Channel width: 20m. Flows up to 170 m^3s^{-1} contained. # Geology - mainly Coal Measures. Forest 16%. Northern area - uplands with livestock farming. Southern area - lowland with dairy and livestock farming. Urban and industrial development in valleys. Peaty soils on hills, seasonally wet. In lower areas, soils have permeable substrate.		1987	1691	97	1245	100	6.24	75.8	29/12	0.94	02/09	14.5	3.66	1.19
		1988	1905	109	1530	123	7.64	126.3	02/01	1.42	24/06	16.6	4.82	2.00
		1989	1612	93	1159	93	5.80	103.7	21/10	0.70	24/06	15.8	2.97	0.78
		1990	1666	96	1227	99	6.15	72.6	27/10	0.86	03/06	14.3	3.73	1.00
058002	**Neath at Resolven** C.A: 190.9 km²	**75..85**	**2003**		**1452**		**8.79**	**322.8**	**27/12 1979**	**0.28**	**21/08 1976**	**22.3**	**4.38**	**0.53**
M.A: NRA-WEL	Level: 15m Local Number:													
F.A.R: SPEI	B.F.I: .35 Sensitivity: 13.1	1986	2399	120	1957	135	11.85	250.6	18/11	0.78	23/07	29.5	6.05	1.05
Comment: Flat V weir (installed in 1978); velocity-area station for high flows; channel width: 28m. Some upstream right-bank spillage during floods. Public water supply reservoir in upper catchment. Industrial abstractions and effluent returns. # Geology - from south to north - Coal Measures; Millstone Grit; Carboniferous Limestone and Old Red Sandstone. A mainly upland catchment; livestock farming predominates, urban and industrial development in the valley.		1987	1949	97	1544	106	9.34	209.4	26/03	0.81	31/08	22.2	4.10	1.17
		1988	2170	108	1804	124	10.89	183.5	02/01	1.31	24/06	25.8	5.78	1.92
		1989	1930	96	1420	98	8.59	158.5	24/12	0.47	08/08	22.2	3.09	0.59
		1990	2054	103	1527	105	9.24	178.8	07/02	0.70	16/06	23.1	3.86	0.92
058005	**Ogmore at Brynmenyn** C.A: 74.3 km²	**70..85**	**1928**		**1445**		**3.40**	**97.9**	**10/03 1981**	**0.18**	**20/08 1984**	**7.5**	**2.31**	**0.52**
M.A: NRA-WEL	Level: 43m Local Number:													
F.A.R: E	B.F.I: .49 Sensitivity: 14.1	1986	2253	117										
Comment: Flat V weir; velocity-area station for high flows. All flows contained. Effluent discharge to river upstream. # Geology - Coal Measures. Livestock farming in upland area with urban and industrial development in the valleys. Forest 21%. Peaty soils in upper areas, seasonally wet. Soils in lower areas have permeable substrate.		1987	1830	95	1516	105	3.57	48.0	28/12	0.38	31/08	8.9	1.95	0.61
		1988	2057	107	1912	132	4.49	68.4	01/01	0.83	28/06	9.6	3.07	1.06
		1989	1808	94	1637	113	3.86	60.7	14/03	0.29	08/08	9.8	1.73	0.42
		1990	1840	95										

		Period	Rainfall (mm)	% of pre-1986	Runoff (mm)	% of pre-1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
058006	**Melite at Pontneddfechan** C.A: 65.8 km²	**71..85**	**2031**		**1411**		**2.94**	**127.6**	**27/12 1979**	**0.17**	**22/08 1984**	**7.2**	**1.48**	**0.33**
M.A: NRA-WEL	Level: 90m Local Number:													
F.A.R: SP	B.F.I: .36 Sensitivity: 14.7	1986	2513	124	1798	127	3.75	106.8	18/11	0.34	27/07	9.0	1.96	0.41
Comment: Flat V weir and velocity-area station; channel width 15m. Steep section with heavy bed load. Public water supply reservoir in catchment has partial effect on flows. # Geology - from south to north - Millstone Grit; Carboniferous Limestone and Old Red Sandstone. Mainly an upland, pasture catchment.		1987	2027	100	1457	103	3.04	83.2	29/12	0.34	01/09	6.7	1.27	0.45
		1988	2131	105	1671	118	3.48	79.6	01/01	0.48	25/06	8.0	1.80	0.66
		1989	1933	95	1473	104	3.07	79.4	24/12	0.23	08/08	8.2	0.87	0.29
		1990	2071	102	1490	106	3.11	80.8	07/02	0.37	16/09	7.7	1.26	0.41
058007	**Llynfi at Coytrahen** C.A: 50.2 km²	**70..85**	**1814**		**1333**		**2.12**	**59.4**	**01/11 1970**	**0.18**	**26/08 1984**	**4.7**	**1.38**	**0.32**
M.A: NRA-WEL	Level: 50m Local Number:													
F.A.R: EI	B.F.I: .49 Sensitivity: 18.2	1986	2008	111	1766	132	2.81	48.3	25/08	0.38	23/07	6.7	1.80	0.48
Comment: Flat V weir and velocity-area station. Industrial abstractions and effluent returns. Channel width 15m. Full range; maximum gauging 91 m^3s^{-1}. # Geology - Coal Measures. Upland area with livestock farming. Forest: 16%. Mainly peaty soils, seasonally wet.		1987	1716	95	1375	103	2.19	28.1	15/11	0.39	01/09	5.7	1.19	0.47
		1988	1966	108	1697	127	2.69	55.4	01/01	0.52	24/06	5.7	1.69	0.69
		1989	1606	89	1262	95	2.01	38.0	20/10	0.26	08/08	5.1	1.04	0.29
		1990	1703	94	1313	98	2.09	39.5	27/10	0.34	16/06	4.7	1.29	0.41
058008	**Dulais at Cilfrew** C.A: 43.0 km²	**71..85**	**1749**		**1334**		**1.82**	**85.4**	**04/11 1973**	**0.12**	**21/08 1984**	**4.3**	**0.98**	**0.23**
M.A: NRA-WEL	Level: 42m Local Number:													
F.A.R:	B.F.I: .39 Sensitivity: 13.7	1986	2121	121	1732	130	2.36	52.2	18/11	0.25	22/07	6.0	1.28	0.32
Comment: Flat V weir (1:10 cross slope) flanked by horizontal side section - no divide piers; velocity-area calibration for high flows. Downstream of single arch railway bridge of limited discharge capacity. # Geology - Coal Measures. Upland area with livestock farming and open cast coal mining. Forest: 18%. Mainly peaty soils, seasonally wet.		1987	1759	101	1449	109	1.98	28.3d	18/10	0.25	31/08	4.9	0.96	0.32
		1988	1989	114	1766	132	2.40	46.4	01/01	0.36	24/06	5.4	1.33	0.48
		1989	1742	100	1368	103	1.86	46.6	08/03	0.17	25/07	5.1	0.77	0.21
		1990	1803	103	1411	106	1.92	37.1	07/02	**0.27**	**28/05**	4.7	0.88	0.31
058009	**Ewenny at Keepers Lodge** C.A: 62.5 km²	**71-85**	**1333**		**877**		**1.74**	**53.0**	**04/08 1985**	**0.16**	**23/08 1976**	**3.6**	**1.22**	**0.35**
M.A: NRA-WEL	Level: 8m Local Number:													
F.A.R:	B.F.I: .58 Sensitivity: 13.9	1986	1576	118	1194	136	2.37					4.8	1.46	0.59
Comment: Flat V weir (1:15 cross-slope terminating in a 1:2 sloping revetment); velocity-area calibration for high flows. All flows contained. Channel width 12.25m. Some earlier data available for upstream station (58003). # Geology - in the north, Coal Measures. To the south a mixture of Millstone Grit; Carboniferous Limestone; Trias; Lias and alluvial deposits. Lowland area with urban and industrial development and dairy and livestock farming. Soils have permeable substrate.		1987	1359	102	992	113	1.97	46.4	15/11	0.45	31/08	4.1	1.36	0.54
		1988	1452	109	1186	135	2.34	**59.4**	**05/10**	0.66	20/06	4.9	1.47	0.78
		1989	1288	97	891	102	1.77	42.3	21/10	0.34	10/09	4.0	1.06	0.41
		1990	1294	97	867	99	1.72	33.9	23/12	0.40	28/09	3.8	1.03	0.46
058011	**Thaw at Gigman Bridge** C.A: 49.2 km²	**76-85**	**1167**		**648**		**1.01**	**6.3**	**11/03 1981**	**0.06**	**29/07 1984**	**2.3**	**0.77**	**0.13**
M.A: NRA-WEL	Level: 7m Local Number:													
F.A.R: GE	B.F.I: .70 Sensitivity: 23.6	1986	1318	113	754	116	1.18	6.2	31/12	0.24	17/10	2.5	0.86	0.30
Comment: Flat V type low flow control; velocity-area calibration based on gaugings from bridge upstream. Flows affected by effluent discharges and groundwater abstractions. # Mixed geology: Lias; Trias; Carboniferous Limestone and Old Red Sandstone. Lowland area in the Vale of Glamorgan with dairy and livestock farming. Soils have permeable substrate.		1987	1148	98	605	93	0.94	6.2	15/11	0.14	01/10	1.9	0.83	0.20
		1988	1257	108	770	119	1.20	**6.4**	**05/10**	0.27	24/06	2.5	0.88	0.35
		1989	1083	93	490	76	0.76	5.3	25/02	0.11	09/09	1.9	0.49	0.13
		1990	1059	91	448	69	0.70	4.6	27/01	0.10	15/09	1.9	0.40	0.12
059001	**Tawe at Ynystanglws** C.A: 227.7 km²	**57..85**	**1860**		**1573**		**11.36**	**461.3**	**27/12 1979**	**0.45**	**08/10 1959**	**27.6**	**5.70**	**1.30**
M.A: NRA-WEL	Level: 9m Local Number:													
F.A.R: GEI	B.F.I: .36 Sensitivity: 8.9	1986	2358	127	2411	153	17.41	236.2	18/11	2.19	23/07	39.4	10.96	2.62
Comment: Velocity-area station. Gravel bed - unstable control. All but extreme floods contained since construction of floodbanks (1959). Limestone outcrop at north of catchment has partial effect on baseflow. Groundwater and industrial abstractions also. # Geology - principally Coal Measures. Mainly upland area with livestock farming. Urban and industrial development at lower levels. Forest: 8%. 30% in Brecon Beacons National Park.		1987	1936	104	2099	133	15.15	265.5	18/10	2.56	02/09	34.3	8.51	3.27
		1988	2187	118	2280	145	16.42	230.8	02/01	2.79	25/06	36.4	9.78	3.78
		1989	1961	105	1775	113	12.81	228.4	09/03	1.58	08/08	31.8	6.39	2.09
		1990	2032	109	1777	113	12.83	219.1	07/02	2.19	16/09	30.4	6.75	2.46
059002	**Loughor at Tir-y-dail** C.A: 46.4 km²	**67..85**	**1501**		**1286**		**1.89**	**143.6**	**05/08 1973**	**0.08**	**20/06 1968**	**4.6**	**1.05**	**0.29**
M.A: NRA-WEL	Level: 31m Local Number:													
F.A.R: PGEI	B.F.I: .43 Sensitivity: 21.2	1986	1875	125	1817	141	2.67	81.6	12/12	0.41	23/07	6.3	1.52	0.44
Comment: Velocity-area station with bed control built over sewer crossing. Right bank overtopped on rare occasions. Some early data available from 1967. Public water supply abstraction from main spring source. Groundwater and industrial abstractions and effluent returns. # Geology - mainly Coal Measures, with Millstone Grit, Carboniferous Limestone and Old Red Sandstone in northern half of catchment. Mainly dairy farming. Soils generally have permeable substrate.		1987	1505	100	1477	115	2.17	88.6	18/10	0.31	29/05	4.7	1.21	0.41
		1988	1760	117	1882	146	2.76	68.2	18/08	0.56	22/05	5.7	1.48	0.68
		1989	1604	107	1468	114	2.16	87.6	14/03	0.25	08/08	5.2	1.01	0.27
		1990	1536	102	1288	100	1.89	61.8	23/01	0.29	07/08	4.5	0.92	0.31
060002	**Cothi at Felin Mynachdy** C.A: 297.8 km²	**61..85**	**1620**		**1195**		**11.28**	**274.7**	**12/12 1964**	**0.22**	**31/07 1984**	**25.9**	**6.72**	**0.84**
M.A: NRA-WEL	Level: 16m Local Number:													
F.A.R: N	B.F.I: .43 Sensitivity: 11.0	1986	1948	120	1437	120	13.57	162.9	25/08	0.84	18/07	31.9	7.76	1.30
Comment: Velocity-area station. Straight reach and natural rock control. Channel width: 20m. Stable section. Effectively a natural catchment. # Geology - mainly Silurian with Ordovician along south eastern boundary. Soils have permeable substrate. Upland pastures, livestock and dairy farming below. Significant forest cover (17%).		1987	1620	100											
		1988	1778	110	1230	103	11.58	170.2	19/03	1.16	24/06	25.2	7.14	1.90
		1989	1604	99	1108	93	10.46	194.5	16/11	0.42	08/08	28.3	3.58	0.50
		1990	1649	102	1169	98	11.03	176.1	07/02	0.73	17/06	29.4	3.89	0.89
060003	**Taf at Clog-y-Fran** C.A: 217.3 km²	**65..85**	**1423**		**1059**		**7.30**	**85.7**	**11/03 1981**	**0.18**	**21/08 1984**	**16.5**	**4.94**	**0.76**
M.A: NRA-WEL	Level: 7m Local Number:													
F.A.R: N	B.F.I: .55 Sensitivity: 10.2	1986	1642	115										
Comment: Velocity-area station. Overspills during flood discharges. Channel width 13.9m. Natural catchment. # Geology - Ordovician with some narrow bands of igneous rock. Old Red Sandstone and alluvium deposits in southern area. Mainly rural - predominantly dairy farming. Soils have permeable substrate.		1987	1362	96	1029	97	7.09	**86.5**	**18/10**	0.94	03/09	15.0	4.32	1.08
		1988	1541	108	1215	115	8.35	67.2	12/01	1.46	25/06	17.2	5.49	2.15
		1989	1269	89	897	85	6.18	81.1	24/02	0.96	24/07	14.7	3.36	1.04
		1990	1280	90	827	78	5.70	72.5	27/01	0.52	26/09	15.7	1.82	0.61
060005	**Bran at Llandovery** C.A: 66.8 km²	**68..85**	*1474*		**1047**		**2.22**	**86.0**	**14/02 1971**	**0.02**	**03/07 1976**	**5.3**	**1.15**	**0.10**
M.A: NRA-WEL	Level: 64m Local Number:													
F.A.R: I	B.F.I: .36 Sensitivity: 29.4	1986	1700	115	1210	116	2.56	52.5	18/11	0.11	17/10	6.2	1.30	0.14
Comment: Velocity-area station. Records from 1968, bed control installed 1972. Channel width: 7.5m. Agricultural abstractions have a minimal impact on flow records. # Geology - Ordovician with alluvium deposits in valley floor. Forest: 38%. Hill farming in upland areas. Dairy farming in valley area. Peaty soils, seasonally wet, in hill area. Soils have permeable substrate in lower areas.		1987	1503	102	1037	99	2.20	61.9	18/10	0.11	02/09	4.8	1.04	0.22
		1988	1615	110	1091	104	2.30	40.1	19/03	0.16	25/06	5.3	1.28	0.28
		1989	1520	103	931	89	1.97	32.7	24/12			5.2	0.63	0.03
		1990	1577	107	970	93	2.05	43.9	07/02	0.09	17/06	5.6	0.78	0.11
060006	**Gwili at Glangwill** C.A: 129.5 km²	**68-85**	**1585**		**1179**		**4.84**	**155.9**	**27/12 1979**	**0.15**	**28/08 1976**	**11.2**	**2.97**	**0.40**
M.A: NRA-WEL	Level: 8m Local Number:													
F.A.R: PEIN	B.F.I: .46 Sensitivity: 11.8	1986	2005	126	1487	126	6.10	113.9	18/11	0.57	27/07	13.9	3.53	0.73
Comment: Velocity-area station; stable section. Channel width: 15.5m. Public water supply and agricultural abstractions and effluent returns have minimal impact on flows records. # Geology - Ordovician and Silurian. Mainly dairy farming, rural area. Forest: 18%. Soils generally have permeable substrate.		1987	1573	99	1103	94	4.53	113.8	18/10	0.45	31/08	9.4	2.35	0.58
		1988	1791	113	1326	112	5.43	66.6	19/03	0.64	28/06	11.8	3.48	0.97
		1989	1550	98	1046	89	4.29	85.5	09/03	0.26	08/08	11.2	1.78	0.30
		1990	1555	98										
060007	**Tywi at Dolau Hirion** C.A: 231.8 km²	**68-85**	*1680*		**1307**		**9.61**	**533.8**	**27/12 1979**	**0.40**	**25/09 1971**	**22.3**	**5.38**	**1.86**
M.A: NRA-WEL	Level: 69m Local Number:													
F.A.R: SREI	B.F.I: .42 Sensitivity: 9.5	1986	1907	114	1626	124	11.95	175.6	30/12	1.32	21/09	28.1	6.98	2.56
Comment: Velocity-area station. Stable section with natural control. Channel width: 38m. River regulated with large reservoir (Llyn Brianne) in upper catchment. # Geology principally Ordovician. Upland areas of Cambrian Hills. Mostly hill farming with some livestock at lower levels. Forest: 17%. Mainly peaty soils, seasonally wet.		1987	1655	99	1291	99	9.49	233.2	18/10	1.42	20/08	18.2	5.40	2.10
		1988	1782	106										
		1989	1699	101	1143	87	8.40	115.0	24/12	0.90	30/11	19.8	4.14	1.78
		1990	1810	108										

	Period	Rainfall (mm)	% of pre-1986	Runoff (mm)	% of pre-1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
060008 **Tywi at Ystradffin** C.A: 89.8 km²	83-85			1348		3.84	56.9	21/12 1985	0.37	22/06 1983	8.8	2.49	0.86
M.A: WELS Level: 175m Local Number:													
F.A.R: SR B.F.I: .53 Sensitivity:	1986			1597	118	4.55	47.8	30/12	0.79	21/09	11.1	2.41	0.86
Comment: Crump Weir. Site owned by Welsh Water. Artificial flow regime - station used principally to monitor compensation and regulated flows from Llyn Brianne Reservoir. # A mostly forested catchment with some rough grazing developed on Ordivician and Silurian formations.	1987			1390	103	3.96					7.5	2.64	1.15
	1988			1517	113	4.31	33.9	02/01	1.35	03/05	8.1	3.59	1.49
	1989			1394	103	3.97	37.3	24/12	0.48	25/10	8.1	2.88	0.85
	1990												
060010 **Tywi at Nantgaredig** C.A: 1090.4 km²	**58..85**	*1556*		**1104**		**38.18**	**702.3**	**21/03 1981**	**1.19**	**08/10 1959**	**89.2**	**23.82**	**3.64**
M.A: NRA-WEL Level: 8m Local Number:													
F.A.R: RP B.F.I: .46 Sensitivity: 6.2	1986	1805	116	1290	117	44.61	385.5	19/11	3.74	18/10	106.7	24.74	4.92
Comment: Flat V weir (1:20) set in Crump profile flanking section. Shoaling d/s influences modular range; calibration based on gaugings. Channel width: 43m. High flows measured u/s - 60001 from which all pre-74 flows derive. Llyn Brianne in headwaters regulates flow down to major abstraction u/s of station (but d/s of 60001). # Geology - Ordovician and Silurian with ORS on southern boundary. Peaty soils in headwaters. Alluvium in valleys. Upper catchment mostly hill farming with some livestock and dairying at lower levels. Forest c17%.	1987	1543	99										
	1988	1680	108	1225	111	42.24	397.3	19/03	4.26	25/06	90.0	29.35	7.12
	1989	1570	101	1001	91	34.61	266.5	25/12	**1.06**	**06/08**	87.6	14.06	2.73
	1990	1592	102	986	89	34.09	414.2	07/02	2.07	11/08	88.0	14.52	3.36
061002 **Eastern Cleddau at Canaston Bridge** C.A: 183.1 km²	**60..85**	**1442**		**1028**		**5.97**	**199.4**	**12/12 1964**	**0.59**	**22/07 1970**	**13.2**	**3.74**	**0.99**
M.A: NRA-WEL Level: 5m Local Number:													
F.A.R: SRPE B.F.I: .55 Sensitivity: 14.7	1986	1684	117	1430	139	8.30	**205.7**	**25/08**	1.23	04/10	16.4	5.13	1.46
Comment: Velocity-area station; artificial control installed in 1974. Channel width: 17.4m. Impounding reservoir for public water supply in upper catchment regulates the river down to the gauging station. # Geology - mainly Ordovician with bands of igneous rock in the northern half of the catchment. Some Old Red Sandstone on the southern boundary. Mainly dairy farming in hilly rural area. Soils mainly have permeable substrate.	1987	1388	96										
	1988	1563	108										
	1989	1267	88	800	78	4.64	87.3	14/03	0.75	04/10	10.3	2.64	0.85
	1990	1273	88	774	75	4.49	100.3	27/01	0.67	16/06	11.0	2.02	0.87
061003 **Gwaun at Cilrhedyn Bridge** C.A: 31.3 km²	**69..85**	*1523*		**1127**		**1.12**	**23.5**	**05/08 1973**	**0.06**	**27/08 1976**	**2.4**	**0.79**	**0.14**
M.A: NRA-WEL Level: 70m Local Number:													
F.A.R: B.F.I: .57 Sensitivity: 18.5	1986	1744	115	1251	111	1.24	16.4	25/08	0.21	16/10	2.5	0.89	0.26
Comment: Velocity-area station in straight reach (width: 7.0m). Natural steep-sided catchment - very responsive. # Geology Ordovician with intrusions of igneous rock. Mainly dairy farming in lower areas. Livestock on hills. Forest: 7%. 100% within Pembrokeshire Coast National Park. Peaty soils on hills, seasonally wet. In lower areas, soils have permeable substrate.	1987	1442	95										
	1988	1675	110										
	1989	1410	93	1022	91	1.01	15.3	24/12	0.13	08/09	2.4	0.69	0.17
	1990	1399	92										
061004 **Western Cleddau at Redhill** C.A: 197.6 km²	**65..85**	*1287*		**864**		**5.41**	**64.9**	**01/02 1979**	**0.30**	**09/09 1976**	**12.2**	**3.75**	**0.66**
M.A: NRA-WEL Level: 6m Local Number:													
F.A.R: B.F.I: .64 Sensitivity: 8.3	1986	1496	116	983	114	6.16	53.8	25/08	0.89	23/07	14.8	3.67	1.15
Comment: Velocity-area station. Channel width: 10.5m. Supersedes Prendergast Mill (61001 - subject to tidal influence); Redhill has no gauging facilities hence ratings developed at Prendergast Mill are used - suitably adjusted. # Geology - Ordovician with igneous intrusions. Natural catchment in rural area. Mainly dairy farming, some arable farming in lower areas. Soils in northern hills have impermeable substrata - seasonally wet. Soils in the lower, southern, area have permeable substrates.	1987	1294	101										
	1988	1460	113										
	1989	1155	90	690	80	4.32	56.7	24/12	0.50	08/09	11.6	2.24	0.55
	1990	1140	89										
062001 **Teifi at Glan Teifi** C.A: 893.6 km²	**59..85**	**1344**		**996**		**28.21**	**303.3**	**27/12 1979**	**0.73**	**29/08 1976**	**63.1**	**18.98**	**3.04**
M.A: NRA-WEL Level: 5m Local Number:													
F.A.R: SP B.F.I: .54 Sensitivity: 9.4	1986	1547	115	1151	116	32.62	220.3	18/11	3.50	25/07	80.4	18.40	4.24
Comment: Velocity-area station. Straight reach (width: 35m), natural control. Flood flows spill over right bank. Public water supply impounding reservoirs in upland area where there is mostly hill farming. Tregaron bog (10 sq. km.) has partial effect on flows; sensibly natural regime. # Geology - mainly Ordovician and Silurian deposits. Dairy farming predominates in southern area. Forest: 5%. Peaty soils on hills, seasonally wet. Apart from Tregaron bog, most of the lower areas have soils with permeable substrate.	1987	1291	96	963	97	27.29	**448.8**	**18/10**	4.05	29/05	58.1	14.86	4.97
	1988	1421	106	1135	114	32.07	180.1	19/03	4.23	25/06	86.5	22.93	6.27
	1989	1291	96	910	91	25.79	198.7	24/12	1.50	28/07	70.2	10.39	1.84
	1990	1318	98	911	91	25.81	206.4	28/01	1.60	08/08	74.0	9.48	1.94
063001 **Ystwyth at Pont Llolwyn** C.A: 169.6 km²	**63..85**	**1467**		**1091**		**5.87**	**210.4**	**12/12 1964**	**0.11**	**22/08 1976**	**13.9**	**3.39**	**0.58**
M.A: NRA-WEL Level: 12m Local Number:													
F.A.R: B.F.I: .41 Sensitivity: 13.8	1986	1647	112	1164	107	6.26	133.0	29/12	0.19	03/07	13.7	3.34	0.50
Comment: Velocity-area station (channel width: 16m). Records from 1963, with bed control installed in 1973. Floods spill over right bank. Discharges from lead mines. Post 1985 flows below 3 m^3s^{-1} are unreliable due to blockage of lower inlet pipe. # Geology Silurian deposits. Mainly upland area with hill farming. Some livestock at lower levels. Forest 18%. Peaty soils in eastern hills, seasonally wet. Most of the western part of the catchment has soils with permeable substrata.	1987	1463	100	1041	95	5.60	127.7	18/10	0.86	12/07	11.6	3.37	1.32
	1988	1579	108	1095	100	5.87	76.8	25/09	0.12	22/05	12.1	4.19	0.54
	1989	1471	100										
	1990	1627	111	1065	98	5.73	86.9	20/12	0.29	08/08	14.3	2.77	0.47
064001 **Dyfi at Dyfi Bridge** C.A: 471.3 km²	**62..85**	**1897**		**1506**		**22.51**	**580.5**	**12/12 1964**	**0.58**	**30/07 1984**	**52.4**	**12.25**	**2.06**
M.A: NRA-WEL Level: 6m Local Number:													
F.A.R: N B.F.I: .38 Sensitivity: 8.1	1986	2181	115	1774	118	26.52	384.9	29/12	1.76	17/10	60.0	14.83	2.13
Comment: A 40m wide river section controlled by the invert and arches of the historical Dyfi road bridge downstream. A good stable section although records in early years are marred by substantial engineering works carried out on the bridge. # A natural, largely moorland catchment on Silurian rocks. River alluvium deposits in the floodplain.	1987	1868	98	1565	104	23.39	301.6	29/12	2.06	14/12	53.3	12.97	3.55
	1988	2033	107	1666	111	24.84	329.8	25/09	2.26	22/05	52.0	16.25	2.92
	1989	1779	94	1339	89	20.01	230.2	23/03	0.86	25/06	50.8	9.69	1.26
	1990	1992	105	1485	99	22.20	294.7	05/10	0.66	10/08	58.2	11.29	1.24
064002 **Dysynni at Pont-y-Garth** C.A: 75.1 km²	**66..85**	**2201**		**1820**		**4.34**	**121.3**	**21/11 1980**	**0.03**	**12/06 1975**	**8.9**	**3.04**	**0.41**
M.A: NRA-WEL Level: 2m Local Number:													
F.A.R: N B.F.I: .48 Sensitivity: 14.9	1986	2453	111	2253	124	5.36	81.3	30/12	0.69	02/03	12.4	3.34	0.86
Comment: A 40m wide section (between floodbanks) controlled by sheet piling downstream in a straight channel dredged prior to station construction. Insensitive at low flows and difficult to gauge at high flows due to flashy response. # Natural flow regime arising from volcanic rocks with much outcropping. Tal-y-Llyn, the southernmost ribbon lake in Britain, lies within the catchment. Rainfall may be underestimated.	1987	2157	98	2248	124	5.35	53.3	18/10	0.80	10/05	11.8	3.46	1.22
	1988	2214	101	2288	126	5.43	46.2	23/01	0.46	28/06	11.8	3.89	0.67
	1989	1997	91	1913	105	4.56	41.9	09/03	0.44	08/08	11.3	2.82	0.53
	1990	2072	94	2031	112	4.84	47.9	05/10	0.43	10/08	12.3	2.68	0.55
064006 **Leri at Dolybont** C.A: 47.2 km²	**60-85**	*1441*		**669**		**1.00**	**24.1**	**05/12 1979**	**0.02**	**21/06 1970**	**2.7**	**0.51**	**0.04**
M.A: NRA-WEL Level: 15m Local Number:													
F.A.R: S B.F.I: .47 Sensitivity: 51.2	1986	1989	138	1175	176	1.76	**37.4**	**30/12**	0.29	02/07	3.5	1.05	0.35
Comment: A 10m wide single crest Crump profile weir in a straight floodbanked reach. Wing walls contain flows to high levels although rating has not been checked beyond medium flows. Abstraction from Craig-y-Pistyll Reservoir. # The catchment is predominantly moorland on impervious Silurian rocks.	1987	1737	121	1171	175	1.75	14.5	18/10	0.39	10/05	3.9	1.13	0.51
	1988	1709	119	1198	179	1.79	21.8	25/09	0.26	22/05	3.6	1.34	0.31
	1989	1438	100	1020	152	1.53	13.1	28/10	0.18	25/06	3.3	1.12	0.25
	1990	1576	109	1027	154	1.54	16.1	05/10	0.19	07/08	3.6	0.97	0.23
065001 **Glaslyn at Beddgelert** C.A: 68.6 km²	**61..85**	**3089**		**2622**		**5.70**	**130.2**	**16/07 1973**	**0.04**	**09/07 1973**	**12.9**	**3.18**	**0.53**
M.A: NRA-WEL Level: 33m Local Number:													
F.A.R: SH B.F.I: .31 Sensitivity: 12.8	1986	3503	113	3007	115	6.54	107.6	30/12	0.43	25/02	16.4	3.79	0.58
Comment: A 20m wide river section rated by current meter and, in the past, by dilution gauging. Rating tends to be insensitive at low flows due to subtle movements in the natural bed control downstream. High flow gauging restricted to peaks and troughs because of rapid water level changes. Station bypassed at high flows. Lakes (Dinas and Gwynant) and HEP discharge from the higher Llyn Llydaw marginally affect records. # Catchment drains the southern flanks of Snowdonia with much bare rock exposure (impermeable Ordovician volcanics).	1987	3057	99	3056	117	6.65	**220.7**	**26/03**	0.67	10/05	15.4	3.30	1.01
	1988	3127	101	3026	115	6.56	154.6	02/09	0.21	24/06	14.8	3.74	0.39
	1989	2960	96	2528	96	5.50	99.5	09/03	0.25	07/08	13.7	2.94	0.35
	1990	3064	99	2406	92	5.23	85.3	19/02	0.27	08/08	13.7	2.73	0.43

		Period	Rainfall (mm)	% of pre-1986	Runoff (mm)	% of pre-1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
065004	**Gwyrfai at Bontnewydd** C.A: 47.9 km²	**70..85**	**2136**		**1516**		**2.30**	**47.3**	**21/03 1981**	**0.06**	**07/10 1972**	**5.2**	**1.55**	**0.26**
M.A: NRA-WEL	Level: 31m Local Number:													
F.A.R: SP	B.F.I: .43 Sensitivity: 17.1	1986	2817	132	1788	118	2.72	25.6	30/12	0.31	06/10	5.9	1.85	0.43
Comment: A 10m wide single crest Crump profile weir containing flows to high levels. Check gauging suggests some (constant) loss due to inadequate cutoffs; hence low flows affected. Significant abstraction from Llyn Cwellyn reservoir upstream. # A steep and typically Snowdonian catchment; Lower Palaeozoic geology.		1987	2400	112	1539	102	2.34	37.0	18/10	0.43	27/05	4.9	1.46	0.52
		1988	2389	112	1458	96	2.21	16.9	26/12	0.27	23/06	4.8	1.45	0.31
		1989	2309	108	1462	96	2.22	37.1	09/03	0.26	20/06	5.5	1.27	0.29
		1990	2355	110	1415	93	2.15	22.8	20/02	0.31	06/08	5.5	1.02	0.33
065005	**Erch at Pencaenewydd** C.A: 18.1 km²	**73-85**	**1368**		**1051**		**0.60**	**19.8**	**21/03 1981**	**0.04**	**27/08 1976**	**1.3**	**0.41**	**0.09**
M.A: NRA-WEL	Level: 56m Local Number:													
F.A.R: N	B.F.I: .54 Sensitivity: 25.6	1986	1733	127	1288	123	0.74	15.5	08/12	0.15	23/07	1.6	0.46	0.19
Comment: A 6m wide Crump profile weir with high wing walls containing wide range of flows. Check gauged up to medium flows. # A typical impervious lowland catchment on the Lleyn peninsula covered with Boulder Clay.		1987	1547	113	1240	118	0.71	**25.0**	**18/10**	0.17	27/05	1.5	0.48	0.19
		1988	1514	111	1091	104	0.62	9.5	05/01	0.10	24/06	1.3	0.42	0.12
		1989	1366	100	891	85	0.51	9.0	14/03	0.08	24/07	1.1	0.31	0.08
		1990	1442	105	884	84	0.51	8.8	02/10	0.07	14/09	1.3	0.26	0.08
065006	**Seiont at Peblig Mill** C.A: 74.4 km²	**76-85**	**2458**		**1930**		**4.55**	**57.9**	**21/03 1981**	**0.16**	**24/08 1976**	**10.5**	**2.96**	**0.56**
M.A: NRA-WEL	Level: 19m Local Number:													
F.A.R: H	B.F.I: .40 Sensitivity: 5.5	1986	2649	108	2173	113	5.13	57.4	19/06	0.48	06/10	11.3	3.45	0.68
Comment: A rated river section in a straight reach which has not yet been bypassed. Control provided by a roughly Crump profile shaped structure originally built as part of investigations prior to construction of the Dinorwic pumped storage scheme, which very marginally affects the record. # A steep catchment with much bare rock surface. Contains two large ribbon lakes, Padarn and Peris, the latter acting as the lower reservoir of the Dinorwic scheme.		1987	2199	89	2023	105	4.77	**64.6**	**18/10**	0.86	14/12	10.2	3.00	1.16
		1988	2298	93	1997	103	4.70	33.5	26/12	0.37	29/06	9.8	3.33	0.57
		1989	2188	89										
		1990	2249	91										
065007	**Dwyfawr at Garndolbenmaen** C.A: 52.4 km²	**75-85**	**2070**		**1485**		**2.47**	**57.2**	**21/03 1981**	**0.01**	**21/08 1984**	**5.6**	**1.53**	**0.21**
M.A: NRA-WEL	Level: 86m Local Number:													
F.A.R: SRP	B.F.I: .38 Sensitivity: 11.9	1986	2438	118	1759	118	2.92	50.5	30/12	0.20	27/02	6.7	1.80	0.37
Comment: A compound Crump profile weir with dividing walls separating the 6.5m wide lower crest from two flanking crests each 5m wide. Station built as the control point for the Cwmystradllyn Reservoir/Afon Dwyfawr regulation scheme. Consequently not intended for high flow gauging and in fact bypassed at flows >10 year return period. # The catchment is mainly steep and with much bare rock of Lower Palaeozoic age.		1987	2280	110	1782	120	2.96	**81.6**	**01/10**	0.31	27/05	7.1	1.75	0.50
		1988	2137	103	1638	110	2.71	33.9	23/01	0.15	25/06	6.0	1.81	0.23
		1989	1883	91	1363	92	2.27	38.8	09/03	0.15	21/06	5.2	1.32	0.20
		1990	1961	95	1360	92	2.26	33.9	26/12	0.19	28/05	5.7	1.18	0.32
066001	**Clwyd at Pont-y-cambwll** C.A: 404.0 km²	**59..85**	**910**		**473**		**6.06**	**81.5**	**26/09 1976**	**0.40**	**22/08 1976**	**13.6**	**3.82**	**0.93**
M.A: NRA-WEL	Level: 15m Local Number:													
F.A.R: RG	B.F.I: .59 Sensitivity:	1986	984	108										
Comment: Velocity-area station. The measuring reach is particularly susceptible to weed growth during the summer months; it is normally cleared once a week and a current meter gauging is undertaken. Low flows are augmented using groundwater (approximately 12% of the Q95 flow at present). # Headwaters rise in the Silurian shales and grits of Denbigh Moors and the Clwydian Hills. Thence the Clwyd across the generally confined Triassic Sandstone Aquifer (with artesian heads over large areas).		1987	940	103											
		1988	940	103										
		1989	890	98	433	92	5.54	58.2	17/12	0.75	22/08	13.4	2.67	0.84
		1990	961	106	499	105	6.40	55.0	30/01	0.62	07/08	17.4	2.74	0.72
066003	**Aled at Bryn Aled** C.A: 70.0 km²	**63..85**	**1190**		**643**		**1.43**	**49.3**	**12/12 1964**	**0.07**	**28/07 1964**	**3.5**	**0.69**	**0.20**
M.A: NRA-WEL	Level: 105m Local Number:													
F.A.R: SRP	B.F.I: .48 Sensitivity: 6.8	1986			749	116	1.66	17.0	17/04	0.19	26/06	4.4	0.78	0.22
Comment: Compound Crump weir (station owned by Welsh Water Plc). Heavy upstream gravel accretion, PWS abstraction also affects approach conditions. Main purpose of the station is for operational control of the Aled Regulation Scheme. # A mostly impervious catchment lower Palaeozoic formations with widespread Drift and alluvium cover.		1987			622	97	1.38	**60.1**	**18/10**	0.20	07/05	2.7	0.92	0.22
		1988			628	98	1.39	20.7	02/01	0.18	16/05	3.4	0.77	0.22
		1989			619	96	1.37	20.5	24/12	0.08	10/09	3.7	0.58	0.09
		1990												
066006	**Elwy at Pont-y-Gwyddel** C.A: 194.0 km²	**73-85**	**1232**		**687**		**4.22**	**143.0**	**15/10 1976**	**0.16**	**06/09 1976**	**10.6**	**2.48**	**0.34**
M.A: NRA-WEL	Level: 88m Local Number:													
F.A.R: SRP	B.F.I: .46 Sensitivity: 18.3	1986	1241	101	733	107	4.51	44.6	08/12	0.40	15/07	11.8	2.12	0.47
Comment: A twin arch bridge provides the control at medium flow. A castellated 1m wide Crump weir is set in each 10m arch to give the low flow control. Rating is continually checked. Some bypassing at levels >2m. Low flows affected >10% by maintained residual flow of 0.2 m^3s^{-1} in Afon Aled from reservoirs which drain 6% of catchment. # Impermeable Silurian strata with shallow soil cover. Mainly sheep pastures. <10% forestry in valleys.		1987	1104	90	608	89	3.74	119.1	18/10	0.51	01/06	7.7	2.39	0.67
		1988	1179	96	640	93	3.93	49.8	02/01	0.34	24/06	9.6	2.21	0.46
		1989	1177	96	628	91	3.87	56.8	24/12	0.20	04/10	10.5	1.39	0.23
		1990	1288	105	709	103	4.36	100.4	29/01	0.18	13/08	12.2	1.34	0.23
066011	**Conwy at Cwm Llanerch** C.A: 344.5 km²	**64..85**	**2215**		**1613**		**17.62**	**509.7**	**12/12 1964**	**0.31**	**30/07 1984**	**42.8**	**8.64**	**1.20**
M.A: NRA-WEL	Level: 7m Local Number:													
F.A.R: P	B.F.I: .28 Sensitivity: 11.9	1986	2442	110	2056	127	22.46	486.6	18/11	0.85	02/03	56.1	10.45	1.32
Comment: A 50m wide river section requiring frequent recalibration (current meter) due to shifting bed control. Record is very important in Conwy valley flood forecasting so much effort to ensure rating is kept accurate. Some bypassing and upstream overbank storage at very high flows. At such times water is diverted by means of leats into Llyn Conwy. # The catchment is mainly mountainous and composed of volcanic rocks.		1987	1990	90	1671	104	18.26	417.3	29/12	2.05	09/07	41.2	8.51	2.94
		1988	2261	102	1942	120	21.16	363.6	02/01	1.13	14/06	47.0	11.90	2.45
		1989	2107	95	1742	108	19.02	395.3	10/11	0.63	08/08	53.9	8.38	0.85
		1990	2270	102	1928	120	21.06	477.8	19/02	0.95	11/08	50.1	9.46	1.35
067001	**Dee at Bala** C.A: 261.6 km²	**57-85**	**1844**		**1512**		**12.54**	**198.2**	**04/12 1960**	**0.80**	**18/03 1962**	**29.4**	**7.51**	**2.10**
M.A: NRA-WEL	Level: 159m Local Number:													
F.A.R: SR	B.F.I: .50 Sensitivity: 10.0	1986			1752	116	14.53	79.4	31/12	2.69	11/09	31.3	9.21	3.97
Comment: Original broad-crested weir modified in 1968 to triangular profile 1:1 u/s and 1:3.5 d/s. Gauged by wading and cableway with some hydraulic model tests also. May drown at about bankfull flows. Low flows controlled by Bala sluices about 750m upstream. These control flow from Llyn Tegid. Llyn Celyn also in catchment. # Thin soil cover over mostly Lower Ordovician rocks. The rapid response to rainfall is modified by the natural storage of Llyn Tegid. Mainly open moorland and sheep pastures with <10% forest.		1987			1478	98	12.26	130.3	18/10	2.93	02/10	24.6	7.93	3.48
		1988			1763	117	14.58	87.5	02/01	2.72	10/05	30.0	10.38	3.43
		1989			1567	104	13.00	73.8	18/12	2.64	03/05	30.1	8.51	3.20
		1990			.1615	107	13.40	80.0	21/02	2.94	23/03	32.5	8.02	3.74
067003	**Brenig at Llyn Brenig outflow** C.A: 20.2 km²	**22..85**	**1316**		**840**		**0.54**	**28.3**	**31/07 1972**	**0.01**	**30/08 1975**	**1.3**	**0.26**	**0.05**
M.A: NRA-WEL	Level: 325m Local Number:													
F.A.R: SR	B.F.I: .40 Sensitivity: 15.8	1986	1451	110	1001	119	0.64	4.0	02/07	0.05	02/12	2.3	0.13	0.05
Comment: Sharp-edged weir built 1923, unchanged except extension of wing walls in 1975. Fully checked calibration to 30 m^3s^{-1}. Natural flow until August 1975, when impounding started: monthly naturalised flows since. Llyn Brenig holds nearly four times annual average runoff. Before August 1975 flows above 15 m^3s^{-1} estimated by rating curve extrapolation and hydrograph estimation because vertical drum level recorder truncated peaks. # Rugged moorland developed on impervious Palaeozoic formations.		1987	1304	99	885	105	0.57	5.3	23/12	0.05	13/01	1.6	0.21	0.05
		1988	1423	108	1379	164	0.88	8.1	28/11	0.08	27/11	2.8	0.25	0.08
		1989	1315	100	1221	145	0.78	5.7	28/09	0.05	31/12	2.9	0.13	0.06
		1990	1443	110	493	59	0.32	2.0	11/09	0.05	03/01	1.0	0.13	0.06

	Period	Rainfall (mm)	% of pre-1986	Runoff (mm)	% of pre-1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
067006 **Alwen at Druid** C.A: 184.7 km^2	**60-85**	**1321**		**835**		**4.89**	**175.6**	**12/12 1964**	**0.33**	**07/07 1975**	**11.2**	**2.94**	**0.60**
M.A: NRA-WEL Level: 146m Local Number:													
F.A.R: SRPI B.F.I: .46 Sensitivity: 14.7	1986	1399	106	970	116	5.68	66.8	18/11	0.60	27/07	13.3	3.95	0.92
Comment: Natural river section about 20m wide. Stable since last major flood in 1964. Some minor revisions of rating from time to time. Bypassed during floods. Reservoirs control 15% of catchment. Llyn Brenig is within the catchment. # Catchment area changed in 1976 to exclude Llyn Bran (0.8 sq. km.). Peat cover (thick in places) over Boulder Clay on Ordovician/Silurian geology.	1987	1247	94	857	103	5.02	134.9	18/10	1.17	06/07	9.8	3.01	1.44
	1988	1369	104	1020	122	5.96	62.2	02/01	1.03	16/05	12.8	3.85	1.46
	1989	1229	93	777	93	4.55	69.4	24/12	0.44	20/07	10.4	2.94	0.51
	1990	1388	105	835	100	4.89	83.9	29/01	0.58	04/09	12.1	2.12	0.76
067008 **Alyn at Pont-y-Capel** C.A: 227.1 km^2	**65-85**	**925**		**340**		**2.45**	**59.1**	**25/09 1976**	**0.24**	**24/08 1976**	**5.7**	**1.43**	**0.48**
M.A: NRA-WEL Level: 37m Local Number:													
F.A.R: SEI B.F.I: .56 Sensitivity: 16.1	1986	980	106	365	107	2.63	25.3	17/04	0.50	20/08	6.2	1.29	0.57
Comment: The central divide wall of this (two part) compound Crump profile weir was lowered in 1986 as debris regularly blocked the lower part. Model test of new configuration; current meter checks before and after. # Ill-defined catchment boundary to NE and SE. 25% Carboniferous Limestone. Major loss of water from upper 70 sq. km. in limestone and mine drainage tunnels. Extensive glacial deposits over Coal Measures.	1987	895	97	306	90	2.20	26.5	18/10	0.67	02/10	4.1	1.48	0.77
	1988	918	99	306	90	2.20	15.2	05/01	0.53	29/08	5.2	1.28	0.59
	1989	840	91	243	71	1.75	25.4	16/12	0.35	22/08	4.2	0.91	0.41
	1990	878	95	274	81	1.97	24.5	29/01	0.33	17/09	5.2	0.81	0.36
067015 **Dee at Manley Hall** C.A: 1019.3 km^2	**37-85**	**1399**		**956**		**30.90**	**665.4**	**14/12 1964**	**1.93**	**30/07 1949**	**70.5**	**19.45**	**4.93**
M.A: NRA-WEL Level: 25m Local Number:													
F.A.R: SRPI B.F.I: .52 Sensitivity: 5.4	1986	1555	111	1063	111	34.36	208.3	10/01	8.57	26/02	84.0	21.37	9.72
Comment: Asymmetrical compound Crump profile weir, checked by current meter. Drowns at flows above 200 m^3s^{-1}. Low flows maintained by releases from major river regulating res. (Celyn and Brenig). Data prior to February 1970 is poorer quality - based on d/s Erbistock (67002, area: 1040.0 sq. km.) flow record. D/s flood attenuation is notable. # Geology is 75% shales, slates, mudstones and palaeozoic grits; 25% extrusive igneous and Carboniferous rocks. 80% grazed open moorland, 12% forestry, remainder arable, urban negligible.	1987	1330	95	925	97	29.90	370.2	18/10	8.72	10/05	59.0	19.53	9.51
	1988	1522	109	1092	114	35.20	229.1	02/01	10.15	18/05	76.6	24.51	10.70
	1989	1321	94	895	94	28.93	242.9	17/12	8.10	04/10	70.2	12.03	8.85
	1990	1475	105	947	99	30.61	243.3	29/01	8.84	11/04	78.7	12.65	9.70
067017 **Tryweryn at Llyn Celyn outflow** C.A: 59.9 km^2	**69-85**	**2125**		**1845**		**3.51**	**23.8**	**22/04 1970**	**0.04**	**13/04 1981**	**9.8**	**2.00**	**0.39**
M.A: WELS Level: 249m Local Number:													
F.A.R: SRPH B.F.I: .41 Sensitivity: 34.7	1986			2068	112	3.93	11.8	30/12	0.32	15/03	7.2	3.49	0.65
Comment: Compound broad-crested weir (non-standard design) immediately downstream of Llyn Celyn Regulating Reservoir. Artificial regime - station measures controlled releases and overspill. Storage changes, catchment inflows and abstraction figures are available to derive naturalised runoff. # A very rugged, wet catchment developed mostly on Ordovician formations (with Cambrian formations in the south-west); very thin soil cover.	1987			1868	101	3.55	11.8	01/01	0.42	05/12	7.5	2.81	0.68
	1988			2201	119	4.17	11.2	29/02	0.44	23/01	7.2	3.99	0.72
	1989			2101	114	3.99	11.8	06/09	0.33	01/02	8.2	3.37	0.38
	1990			1759	95	3.34	11.7	21/07	0.33	17/12	8.2	1.06	0.36
067018 **Dee at New Inn** C.A: 53.9 km^2	**69-85**	**1893**		**1797**		**3.07**	**96.3**	**26/10 1980**	**0.04**	**24/08 1976**	**7.9**	**1.48**	**0.21**
M.A: NRA-WEL Level: 164m Local Number:													
F.A.R: N B.F.I: .27 Sensitivity: 18.9	1986	2240	118	2029	113	3.47	82.1	18/11	0.25	03/10	9.0	1.67	0.29
Comment: Velocity-area station. Low and medium flows only; extensively out of bank at mean annual flood level. Rating changes have followed changes in positions of the 'stepping stones' which provide the low flow control. Possible flow through gravels under site. Used as daily naturalisation indicator for Upper Dee flows. # Mainly Ordovician rocks. Patchy superficial deposits otherwise no water-bearing strata. A quickly responding catchment comprising mostly rough upland pasture.	1987	1909	101	1699	95	2.90	84.8	18/10	0.37	10/05	6.9	1.28	0.47
	1988	2175	115	1983	110	3.38	79.9	25/09	0.21	24/06	8.1	1.76	0.35
	1989	1907	101	1597	89	2.73	66.9	17/12	0.12	24/06	8.1	0.98	0.17
	1990	2101	111	1846	103	3.16	73.0	19/02	0.17	08/08	9.0	1.36	0.25

Summary of Archived Data - 1

Gauged daily flows, monthly peaks and monthly rainfall

Stn. number	Gauged daily flows, monthly peaks and rainfall			
055002	30s	----eEEAA	40s	AAAAAAAAAA
	50s	AAAAAABAAA	60s	AAAEAAAAAA
	70s	CCCBAAAAAA	80s	AAACCCAAAA
	90s	AAf		
055003	30s	--------e	40s	AAAAAAAAAA
	50s	AAAAAAAAAA	60s	AAAAAAAAAA
	70s	AAAABAAAAA	80s	AE†-----†
	90s	††		
055004	30s	-------eAA	40s	AAAAAAAAAA
	50s	AAAAAAAAAA	60s	AAAEAAAAAA
	70s	AAAAAAAAAA	80s	EEF†††††††
	90s	††		
055005	30s	-------eBA	40s	AAAAAAAAAA
	50s	AAAAAAAAAA	60s	AAAEAAAAAA
	70s	-------†††	80s	-------††††
	90s	††		
055006	00s	--------CC	10s	CCCCCCCCCC
	20s	CCCCCCCCCC	30s	CCCCCBAAAA
	40s	AAAAAAAAAA	50s	AAAAAAAAAA
	60s	AAAAAAAAAA	70s	AAAAAAABCC
	80s	cCCFC†		
055007	30s	-------eAA	40s	AAAAAAAAAA
	50s	AAAAAAAAAA	60s	AAAEAAAAAA
	70s	CCCCCCCCCC	80s	CAACCCAAAA
	90s	AAf		
055008	50s	-eAAAAEEaA	60s	AAAEAAAEEA
	70s	AAAAADAAAA	80s	AAAAAAAAAA
	90s	DA		
055009	40s	--------eA	50s	AAAAAAAAAA
	60s	AAAEAAAAAA	70s	AAE†††††††
	80s	-------††††	90s	††
055010	50s	-----eAAAA	60s	AAAEAAAAAA
	70s	AAAAAAAEAA	80s	EFF†††††††
	90s	††		
055011	50s	---------e	60s	AAAAAAAAAA
	70s	AAAAAABAAA	80s	DBF†††††††
	90s	††		
055012	60s	-----eAAA	70s	AAAAAAAEEA
	80s	AAAAAAAAAA	90s	AAf
055013	60s	------eAAA	70s	AAAAAAAAAA
	80s	AAAAAAAAAA	90s	AAf
055014	60s	------eAAA	70s	AAAAAAAAAA
	80s	AAAAAAAAAA	90s	AAf
055015	60s	------eAAA	70s	AAAAAAAAEE
	80s	EAD†††††††	90s	††
055017	60s	--------eA	70s	BAAEEAAAAA
	80s	AE----††††	90s	††
055018	60s	--------eA	70s	AAAAAAAAAE
	80s	AAAAAAAAAA	90s	AAf
055021	60s	------†††E	70s	AAAAAAAAAA
	80s	AAE†FADAAA	90s	AAf
055022	60s	-------†-e	70s	AAAABAAAAE
	80s	†FF†††††††	90s	††
055023	30s	------fBAA	40s	AABAAAAAAA
	50s	AAAAAAAAAA	60s	AAAAAAAAAA
	70s	CCCCCCCCCC	80s	CAAAAAAAAA
	90s	DAf		
055025	60s	------††††	70s	EAAAAAAAAA
	80s	AAAAAAAAAA	90s	AAf
055026	30s	-------eBA	40s	AAAAAAAAAA
	50s	AAAAAAAAAA	60s	AAAEAAAAAA
	70s	AAAAAAAAAA	80s	AAAAAAAAAA
	90s	AAf		
055027	70s	-eAAAAAAE†	80s	†††---††††
	90s	††		
055028	70s	-eAAAAAAAE	80s	ADAAAACAAA
	90s	AAf		
055029	40s	-------eA	50s	AAAAAAAAAA
	60s	AAAEAAAAAA	70s	AAAAAAAAAA
	80s	EAAAADAAAD	90s	AAf
055030	20s	------fccc	30s	ccccccccfc
	40s	ccccccccc	50s	c---------
	60s	----------	70s	---††††
055031	70s	-††EAAAAAA	80s	AAAAAAAAAD
	90s	DAf		
055032	00s	--------CC	10s	CCCCCCCCCC
	20s	CCCCCCCCCC	30s	CCCCCBAAAA
	40s	AAAAAAAAAA	50s	AAAAAAAAAA
	60s	AAAAAAAAAA	70s	AAAAAAABCC
	80s	cAAAAAadaa	90s	eaf
055033	60s	--------c	70s	---eaaaaaa
	80s	aaaaadAAAE	90s	††
055034	70s	---eeeaeaa	80s	eaaaaaAAAE
	90s	††		
055035	70s	---eaaaaaa	80s	aaaaaaAAE†
	90s	††		
056001	50s	-------EAA	60s	AAAAAAAAAA
	70s	AAAAAABAAA	80s	AAAAAAAAAA
	90s	AAf		
056002	50s	-------eAA	60s	AAAAAAAAAE
	70s	AAAAAE††AA	80s	AAAAAAAAAA
	90s	AAf		
056003	60s	---eAAAAAA	70s	AAAAABAAAA
	80s	AA†---††††	90s	††
056004	60s	-----eAAAA	70s	AAAAAAAAAA
	80s	E††---††††	90s	††
056005	60s	-----†EAAA	70s	AAAAAAAAAA
	80s	AAAAAAAAAA	90s	AAf
056006	60s	---eAAAAAA	70s	AAAAAAAAAA
	80s	AA††††††††	90s	††
056007	60s	------†EAE	70s	EAAAAAAAAA
	80s	AAAAAAAAAA	90s	AAf
056008	70s	ebaAAEE†††	80s	††---††††
	90s	††		
056010	60s	---------e	70s	aeeeeeeeea
	80s	ee----††††	90s	††
056011	70s	ebaAAAAAAA	80s	AA†--††††
	90s	††		
056012	70s	-AAAAAAABB	80s	AA†--††††
	90s	††		
056013	70s	--eAAAAAAA	80s	AAAAAAAAAA
	90s	AAf		
056015	70s	--†††EAAAE	80s	AA††--††††
	90s	††		
056016	70s	---------a	80s	aaabaaaaa
057001	30s	------eeEB	40s	e---------
	50s	-eaABAAA	60s	ABBBBBAAEA
	70s	AAAA††††††	80s	††††
057002	30s	-eaaaaaaAA	40s	AAAAAEAAAA
	50s	AADDAABAAA	60s	AAAAAAAAAA
	70s	ABAA††††††	80s	†††
057003	60s	-----eAAAA	70s	AAA†††††††
	80s	††††††††††	90s	††
057004	50s	-------eAA	60s	AEEAAAAAAA
	70s	AAAAAAAAAA	80s	AAAAAAAAAA
	90s	AAf		
057005	70s	eAAAAAAAAA	80s	AAAAAAAAAA
	90s	AAf		
057006	70s	eAAAAAAAAA	80s	E††FAAAAAA
	90s	AAf		
057007	70s	--†EAAAAAA	80s	AAAAAAAAAD
	90s	AAf		
057008	70s	--†AAAAAAA	80s	AAAAAAAAAA
	90s	AAf		
057009	70s	-----AAAAA	80s	AAAAAAAAAA
	90s	AAf		
057010	70s	-----eAAAAA	80s	EAAAAAAAAA
	90s	AAf		
057011	70s	------eaae	80s	e--------†
	90s	††		
057012	70s	------eaae	80s	e--------†
	90s	††		
057015	70s	--------eA	80s	ABACCCAAAA
	90s	AAf		
057016	70s	---------e	80s	AAAAAAaaaa
	90s	aaf		
058001	60s	---eAAAAAA	70s	AAAAAAAAAA
	80s	AAAAAAEAAA	90s	AAf
058002	70s	-----AAEEB	80s	EAADAAAAAA
	90s	AAf		
058003	60s	--eAAE††††	70s	†††††††††
	80s	------††††	90s	††
058005	70s	eAAAAAAAAA	80s	AAADFADBAA
	90s	DDf		
058006	70s	-EAAAAAAAA	80s	EAAAAAAAAA
	90s	ADf		
058007	70s	eBAAAAAAAA	80s	EAAAAAAAAA
	90s	AAf		
058008	70s	-EAAAAAAAA	80s	EDADADACAA
	90s	AEf		
058009	70s	-EAAAAAAAA	80s	AAADAADAAA
	90s	AAf		
058010	70s	-----eaaaa	80s	eE††--††††
	90s	††		
058011	70s	-----eAAA	80s	AAAAAAAAAA
	90s	AAf		
059001	50s	-------eEA	60s	AAABAAAAAA
	70s	AEAEEAAAAA	80s	DAAAAAAAAA
	90s	AAf		
059002	60s	-------FFB	70s	AABBBBAAAA
	80s	AAAAAAAAAA	90s	AAf
060002	60s	-eAAAAAAE†	70s	BAAAAAAAEE
	80s	EAADAAADAA	90s	AAf
060003	60s	-----EAAAA	70s	AEEAAAAAAA
	80s	AAAAAADAAA	90s	ADf
060004	60s	-------††E	70s	EEAAAAAAAA
	80s	AA†--††††	90s	††
060005	60s	--------fe	70s	BADAAAAAAA
	80s	AAAAAAAAAA	90s	AAf
060006	60s	--------FB	70s	BBBABAAAAA
	80s	AAAAAAAAAA	90s	††
060007	60s	--------fA	70s	AAAAAAAAAA
	80s	AAAAAAAADA	90s	††
060008	80s	---faaadaa		
060009	70s	FCCCCFF†††	80s	†††††††††
	90s	††		
060010	50s	--------eB	60s	AAAAAAAAAA
	70s	AAAAAaaae-	80s	eaaaaaAEAA
	90s	AAf		
060012	70s	fAABBBAEEA	80s	EE†---††††
	90s	††		
060013	70s	-EBCCCF†††	80s	††---††††
	90s	††		
061001	60s	-----eAEAE	70s	EAAE††††††
	80s	†††††††††	90s	††
061002	60s	eABAAAABBA	70s	AAEADAAAAA
	80s	AAAAAFAEDA	90s	AAf
061003	60s	---------e	70s	AEAAAAAAAA
	80s	AAAAAAAEEA	90s	††
061004	60s	-----eAEAE	70s	EAaaaaaaee
	80s	eaaaclAE†A	90s	††
062001	50s	---------E	60s	AAAAAAAAAA
	70s	EAAAAAAAAA	80s	AAAAAAAAAA
	90s	AAf		
062002	70s	-eeaAAAEAE	80s	EE†---††††
	90s	††		
063001	60s	--eAAAAAA	70s	AAAAAAAAAA
	80s	EAAAAAAAAD	90s	AAf
063002	60s	-----eAEAA	70s	AAAAAAAAEE
	80s	AAAAD†		
063003	70s	eeaeAAEAAE	80s	††---††††
	90s	††		
064001	60s	--EAAAAEAA	70s	AE††E††††
	80s	†DAAAAAAAA	90s	AAf
064002	60s	-----†AEEA	70s	EEDDDDDAAA
	80s	AAAAAAAAAA	90s	AAf
064006	60s	fccccccccc	70s	cBABAAAAAA
	80s	AAAAAAAAAA	90s	AAf
065001	60s	-eAABAABAE	70s	EEEEAAAAAD
	80s	AAAAAAAAAA	90s	AAf
065004	70s	eEEEAAAAAA	80s	AAAAAAAAAA
	90s	AAf		
065005	70s	--†AAAAAAA	80s	AAAAAAAAAA
	90s	AAf		
065006	70s	------eAAA	80s	AAAAAAAAAE
	90s	EAf		
065007	70s	---†EAAAA	80s	AAAAAAAAAA
	90s	AAf		
066001	50s	---------e	60s	AAAAAAAAAA
	70s	AAAAAAACCF	80s	C†††††††A
	90s	AAf		
066002	60s	-eABAAAAAC	70s	BAAAE††††
	80s	------††††	90s	††
066003	60s	---eAE†EA†	70s	††††EEEEEE
	80s	AAD†††aaaa		
066004	70s	aAAAAAA†††	80s	†††---††††
	90s	††		
066005	70s	-EAEAAA†††	80s	††---††††
	90s	††		
066006	70s	---EAAAAAA	80s	AAAAAAAAAA
	90s	AAf		
066008	70s	-------aaa	80s	bbaaadAAAE
	90s	††		
066011	60s	----eEEEEA	70s	AAEAAAAAAA
	80s	AAAAAAAAAA	90s	AAf
067001	50s	-------eAA	60s	AAAAAAAAAA
	70s	ABAAAAAAAA	80s	AAACCCaaaa
	90s	aaf		
067002	30s	-------eAA	40s	AAAAAAAAAA
	50s	AAAAAAAAAA	60s	AAAAAAAAAA
	70s	A†††††-†††		
067003	20s	--eAAAAAAA	30s	AAAAAAAAAA
	40s	AAAAAAAAAA	50s	AAAAAAAAAA
	60s	AAABBAAAAA	70s	AABAABCAAA
	80s	AAA†FAAAAA	90s	A†
067005	50s	---†††EAAA	60s	AAAAAAAAAA
	70s	AAAAAAA†††	80s	†††---††††
	90s	††		
067006	60s	eAAAAAAAAA	70s	BAAAAAAAAA
	80s	AAAAAAAAAA	90s	AAf
067007	60s	----EAAAAE	70s	††††††††††
067008	60s	-----EBAAA	70s	AAAAAAAAAA
	80s	AAAAAAAAAA	90s	AAf
067009	60s	-----EE†EB	70s	BBBBEBEBAB
	80s	B†DDDDdedD	90s	BBf
067010	60s	------EAAA	70s	AAAAAA††††
	80s	††---††††	90s	††
067011	60s	-------ccc	70s	ccffccccff
	80s	ff		
067013	60s	-------EDE	70s	AAAAAaa†††
	80s	------††††	90s	††
067015	30s	-------eAA	40s	AAAAAAAAAA
	50s	AAAAAAAAAA	60s	AAAAAAAAAA
	70s	AAAAAAAAAA	80s	AAAAAAAAAA
	90s	ACf		
067017	60s	--------†B	70s	AAAAAAAAAA
	80s	AAAAAAaaaa	90s	a
067018	60s	--------†E	70s	AAAAAAAAAA
	80s	AAAAAAAAAA	90s	AAf
067025	70s	-------aaaa	80s	aAAAE††††††
	90s	††		
067026	70s	----ccccccc	80s	cCCCCCc
067029	70s	-------eaa	80s	eeddfdd

Summary of Archived Data – 2

Naturalised daily and monthly flows

Stn. number	Naturalised daily, and monthly flows			
055002	30s	——FEE	40s	EEEEEEEEEE
	50s	EEEEEEEEEE	60s	EEEFFEEEEE
	70s	AAAAAAAAAA	80s	AAD
055006	30s	—FEEEE	40s	EEEEEEEEEE
	50s	EEEEEEEEEE	60s	EEEEEEEEEE
	70s	EEEEEEEF		
055007	30s	——FE	40s	EEEEEEEEEE
	50s	EEEEEEEEEE	60s	EEEFFEEEFE
	70s	AAAAAAAAAA	80s	ADA
055023	60s	——F	70s	AAAAAAAAAA
	80s	AAA		
056001	50s	——FEE	60s	EEEEEEEEEE
	70s	FEEEEEFF		
056002	50s	——FEE	60s	EEEEEEEEEF
	70s	EEEEEF		
056003	60s	—FEF		
056004	60s	—FEEEE	70s	EEEEEEF
056006	60s	—FEEEEEE	70s	FFEEEEF
056011	70s	FEEEEEFF		
056012	70s	-EEEEEF		
057001	50s	-FEEEEEEE	60s	EEEEEEEBC
057002	30s	——FEE	40s	EEEEEFEEEE
	50s	EEEEEFFEF-	60s	-FEEEEBAAA
	70s	C		
057003	60s	—-CAAAC		
057004	50s	——FEE	60s	EFFEEBAAAC
058001	60s	—FEF—C	70s	C
058003	60s	-FEEF		
059001	50s	——FE	60s	EEEEEBACC
061002	60s	FEEEEBCC		
062001	50s	——F	60s	EEEEEEEF
064001	60s	—FF		
066002	60s	-FEEEEEEE-	70s	FFE
066003	60s	—FEF-FE		
066011	60s	——CA	70s	AC
067001	50s	——FEE	60s	EEEEEEEEEA
	70s	AAAAAAAAAA	80s	AAAAAAA
067002	50s	—FEEEEEE	60s	EEEEEEFFEF
067003	60s	——FE	70s	EEEE
067006	60s	FEEEEEEEEF		
067007	60s	—FEEEE		
067015	60s	——A	70s	AAAAAAAAAA
	80s	AAAAAAA-F		
067017	60s	——E	70s	EE
067026	70s	—AAAAAA	80s	AAAAAAA

Gauged daily flows, monthly peaks and monthly rainfall

KEY:

	Complete rainfall	Incomplete or missing rainfall
Complete daily and complete peaks	A	a
Complete daily and partial peaks	B	b
Complete daily and no peaks	C	c
Partial daily and complete peaks	D	d
Partial daily and partial peaks	E	e
Partial daily and no peaks	F	f
No flow data	†	-

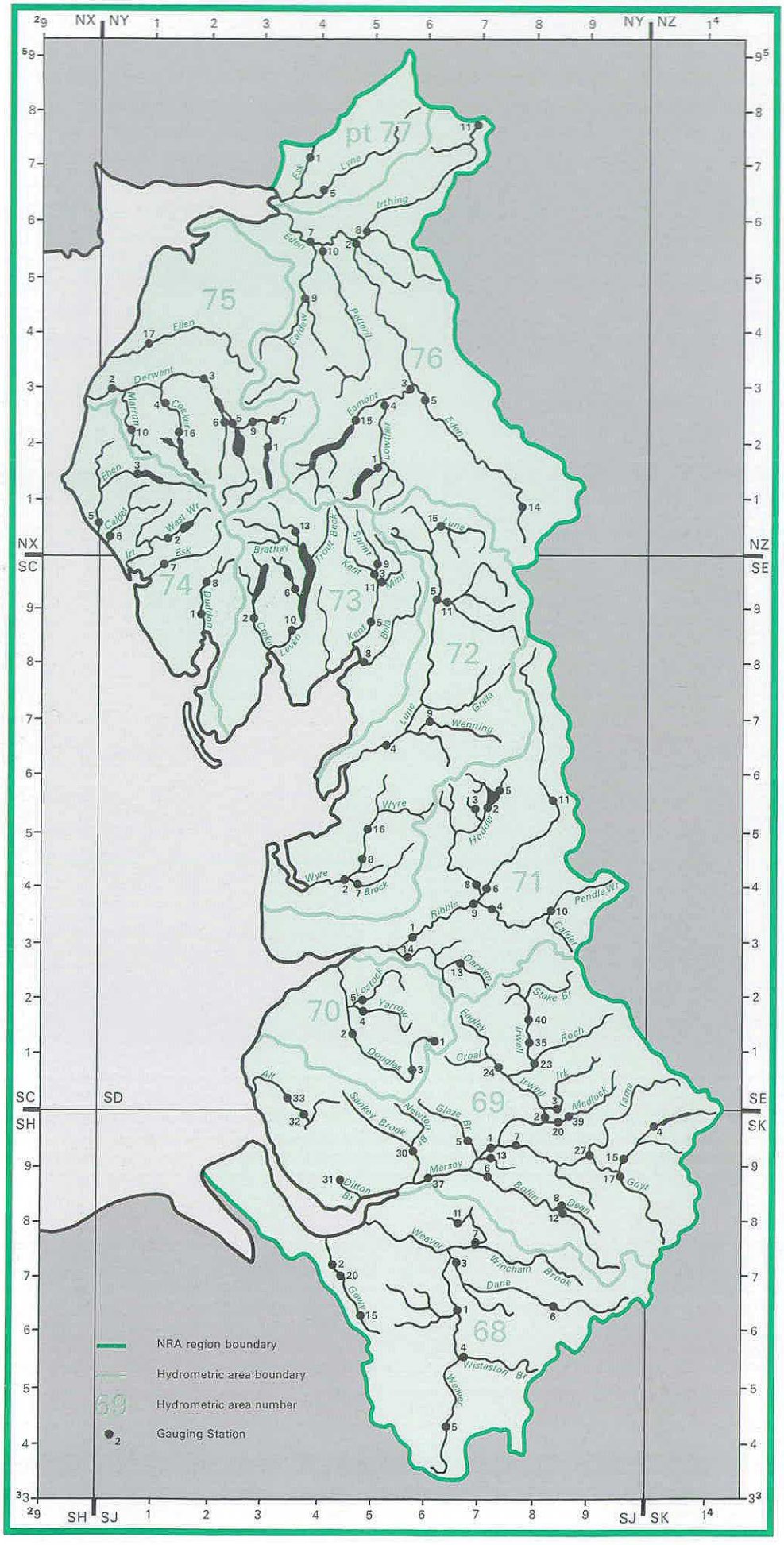
Naturalised daily and monthly flows

KEY:

Complete daily and complete monthly	A
Partial daily and complete monthly	B
Partial daily and partial monthly	C
Partial daily and no monthly	D
No daily and complete monthly	E
No daily and partial monthly	F
No naturalised flow data	-

Up-to-date Summaries of Archived Data are available on request from the National Water Archive Office.

NORTH WEST REGION



Area: 14,445 km²

Average Rainfall (1961–90): 1201mm

Gauging Station Register

Station number	River name	Station name	Grid reference	Catchment area (sq km)	Station type	Period of record	Mean ann. rainfall (mm)	Mean ann. runoff (mm)	Mean ann. loss (mm)	Max. ann. runoff (mm)	Year of max.	Min. ann. runoff (mm)	Year of min.	Mean flow (m^3s^{-1})	Min. mon. flow (m^3s^{-1})	Month/Year of min.	Mean ann. flood (m^3s^{-1})	10 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
068001	Weaver	Ashbrook	SJ 670633	622.0	VA	1937..90	753	288	465	467	54	140	64	5.68	0.64	08/76	56.7	12.5	1.13
068002 *	Gowy	Picton	SJ 443714	156.2	VA	1949..76	748	247	501	401	74	101	64	1.23	0.22	01/64	16.4	2.5	0.25
068003	Dane	Rudheath	SJ 668718	407.1	FVVA	1949..90	880	365	515	671	54	181	59	4.72	0.63	09/59	69.4	10.2	0.91
068004	Wistaston B	Marshfield Br	SJ 674552	92.7	VA	1957..90	749	363	386	572	66	223	85	1.07	**0.22**	**09/89**	10.4	1.9	0.29
068005	Weaver	Audlem	SJ 653431	207.0	TPVA	1953..90	742	252	490	400	54	108	64	1.65	0.08	08/76	23.1	3.8	0.26
068006 *	Dane	Hulme Walfield	SJ 845644	150.0	VA	1953..84	1043	500	543	941	54	289	74	2.38	0.23	06/75	61.0	5.4	0.45
068007	Wincham Brk	Lostock Gralam	SJ 697757	148.0	MIS	1962..90	839	449	390	678	81	251	64	2.11	0.14	07/84	28.0	4.2	0.36
068011 *	Arley Brook	Gore Farm	SJ 696799	36.5	FL	1975..82	828	387	441	414	78	256	75	0.45	0.01	08/76		0.9	0.02
068015	Gowy	Huxley	SJ 497624	49.0	VA	1981–90	*707*	265	442	378	81	**201**	**89**	0.41	0.08	07/84		0.9	0.10
068020	Gowy	Bridge Trafford	SJ 448711	156.0	FV	1981..90	711	250	461	402	81	195	85	1.23	**0.22**	**07/90**		2.5	0.28
069001 *	Mersey	Irlam Weir	SJ 728936	679.0	CB	1934..78	1106	661	445	985	44	332	55	14.23	1.79	08/55	160.1	28.0	3.80
069002	Irwell	Adelphi Weir	SJ 824987	559.4	B	1949..90	1273	1023	250	1718	54	590	76	18.14	2.75	06/51	234.6	38.0	4.75
069003	Irk	Scotland Weir	SJ 841992	72.5	CB	1937..90	1047	832	215	1345	70	363	59	1.91	0.30	09/59	40.7	3.5	0.48
069004 *	Etherow	Bottoms Res	SK 023971	78.2	TP	1945..81	1480	529	951	934	80	230	76	1.31	0.15	**10/76**		2.9	0.29
069005 *	Glaze Brook	Little Woolden	SJ 685939	152.0	VA	1954..83	975	681	294	982	58	383	62	3.28	0.50	06/62		6.7	0.74
069006	Bollin	Dunham Massey	SJ 727875	256.0	VA	1955..90	890	510	380	777	81	336	59	4.14	0.46	08/76	40.9	8.4	1.11
069007	Mersey	Ashton Weir	SJ 772936	660.0	CB	1981..90	1151	542	609	759	81	403	85	11.34	2.45	07/84	197.8	23.4	2.84
069008	Dean	Stanneylands	SJ 846830	51.8	CC	1984..90	*982*	399	583	404	90	366	85	0.66	0.10	07/84	11.6	1.4	0.12
069012	Bollin	Wilmslow	SJ 850815	72.5	CC	1985–90	940	537	403	636	87	463	89	1.23	0.53	09/89	14.4	2.3	0.49
069013	Sinderland B	Partington	SJ 726905	44.8	CC	1982..90	*835*	392	443	489	87	409	86	0.56	0.18	07/84	10.1	1.2	0.19
069015	Etherow	Compstall	SJ 962908	156.0	C	1977..90	1391	664	727	843	80	493	85	3.28	0.54	05/82	43.0	7.4	0.66
069017	Goyt	Marple Bridge	SJ 964898	183.0	CC	1977..90	1154	659	495	905	81	480	85	3.82	**0.68**	**09/89**	58.1	8.5	0.77
069020	Medlock	London Road	SJ 849975	57.5	MIS	1976–90	1057	490	567	611	80	386	76	0.89	0.23	08/76	12.0	1.8	0.29
069023	Roch	Blackford Bridge	SD 807077	186.0	VA	1978..90	*1259*	874	385	1142	81	**662**	**89**	5.15	1.36	07/84	74.8	10.4	1.49
069024	Croal	Farnworth Weir	SD 743068	145.0	B	1981–90	*1353*	657	696	924	81	540	85	3.02	0.48	07/84	60.9	7.0	0.64
069027	Tame	Portwood	SJ 906918	150.0	MIS	1978..90	1208	915	293	**1169**	**86**	793	82	4.35	1.23	07/84	85.6	8.6	1.51
069030	Sankey Brook	Causey Bridge	SJ 588922	154.0	VA	1976..90	900	726	174	723	81	450	85	3.55	0.65	07/83		5.5	0.85
069031	Ditton Brook	Greens Bridge	SJ 457865	47.9	VA	1981..89	*884*	753	131	877	81	654	82	1.14	0.51	07/83		2.1	0.45
069032	Alt	Kirkby	SJ 392983	90.1	VA	1979..90	*880*	520	360	664	81	414	85	1.49	**0.53**	**05/90**		2.9	0.50
069033 *	Alt	Sefton	SD 359012	100.0	VA	1954..75	*881*	727	154	865	74	480	55	2.31	0.82	06/60		3.6	1.02
069035	Irwell	Bury Bridge	SD 797109	155.0	VA	1977..90	1344	1154	190	1710	81	820	85	5.67	0.07	05/84		13.6	0.29
069037	Mersey	Westy	SJ 617877	2030.0	US	1986..89	1098	584	514	656	86	474	89	37.61	10.21	09/89		83.5	8.83
069039 *	Medlock	New Viaduct St	SJ 863987	55.9	B	1949..76	*1113*	626	487	739	58	397	76	1.11	0.14	09/59		2.5	0.17
069041	Tame	Broomstair Br	SJ 938953	113.0	MIS	1981–90		1050		1288	81	814	90	3.76	0.74	09/90		7.0	1.21
070001 *	Douglas	Rivington Res	SD 631119	39.4	MIS	1951..73	1276	307	969	800	67	119	53	0.38	0.10	07/56		0.4	0.13
070002	Douglas	Wanes Blades Br	SD 476126	198.0	VA	1980..90	1091	628	463	871	81	504	83	3.94	0.00	07/83	34.7	7.3	0.94
070004	Yarrow	Croston Mill	SD 498180	74.4	MIS	1976..90	1056	816	240	1200	81	530	76	1.92	0.38	08/76		4.2	0.49
071001	Ribble	Samlesbury	SD 589304	1145.0	MIS	1960–90	1350	920	430	1240	67	607	71	33.40	2.64	07/84	619.4	81.7	4.51
071002 *	Hodder	Stocks Reservoir	SD 719546	37.0	B	1936..80	1737	519	1218	891	67	238	73	0.61	0.00	09/80		0.6	
071003 *	Croasdale	Croasdale flume	SD 706546	10.4	FL	1957–74	1864	1198	666	1568	67	873	59	0.39	0.05	09/59	14.1	0.9	0.07
071004	Calder	Whalley Weir	SD 729360	316.0	FV	1963..90	1237	849	388	1146	81	621	76	8.51	1.56	08/76	176.3	19.5	1.94
071005 *	Bottoms Beck	Bottoms Bk	SD 745565	10.6	FL	1960–74	1548	1032	516	1318	67	735	69	0.35	0.03	06/70	16.3	0.9	0.03
071006	Ribble	Henthorn	SD 722392	456.0	CB	1968..90	1371	934	437	1253	81	657	69	13.50	0.80	07/84		34.7	1.10
071008	Hodder	Hodder Place	SD 704399	261.0	FV	1977..90	1672	1036	636	1354	81	**764**	**89**	8.57	0.84	07/84	222.0	22.2	0.96
071009	Ribble	Jumbles Rock	SD 702376	1053.0	VA	1980..90	*1404*	1025	379	1274	81	925	87	34.21	3.49	07/84		85.3	4.23
071010	Pendle Water	Barden Lane	SD 837351	108.0	FV	1971..90	*1269*	795	474	**1082**	**86**	528	75	2.72	**0.40**	**09/89**		6.4	0.54
071011	Ribble	Arnford	SD 839556	204.0	FV	1966..90	1521	1162	359	1438	81	752	69	7.52	0.39	07/84	119.1	19.4	0.47
071013	Darwen	Ewood Bridge	SD 677262	39.5	VA	1980..90		1065		1292	81	865	90	1.33	0.32	07/84		2.9	0.35
071014	Darwen	Blue Bridge	SD 565278	128.0	VA	1977..90		1002		1294	81	877	77	4.07	1.27	07/84		8.2	1.35
072002	Wyre	St Michaels	SD 463411	275.0	FVVA	1963..90	1272	761	511	1184	81	365	76	6.64	0.25	08/76	147.3	15.5	0.56
072004	Lune	Caton	SD 529653	983.0	CB	1959..90	1482	1122	360	1492	67	792	76	34.96	1.88	07/84		84.6	3.09
072005	Lune	Killington Br	SD 622907	219.0	CB	1969..90	1607	1271	336	**1496**	**90**	938	73	8.83	0.54	07/84	207.1	21.8	0.78
072007	Brock	U/S A6	SD 512405	32.0	B	1985..90	1425	875	550	1011	86	622	89	0.89	0.09	06/88		2.2	0.08
072008	Wyre	Garstang	SD 488447	114.0	FV	1967..90	1403	936	467	1334	81	571	71	3.38	0.20	08/76		8.2	0.33
072009	Wenning	Wennington Br	SD 615701	142.0	FV	1981..90	1358	873	485	1093	81	606	89	3.93	0.23	07/84		9.8	0.30
072011	Rawthey	Brigg Flatts	SD 639911	200.0	VA	1968..90	1811	1543	268	2716	85	970	69	9.78	0.54	07/84	284.4	25.5	0.69
072015	Lune	Lunes Bridge	NY 612029	141.5	VA	1985..90	1706	1389	317	1553	90	1426	88	6.23	0.32	07/89		15.2	0.59
072016	Wyre	Scorton Weir	SD 501500	88.8	MIS	1981..90	*1502*	1140	362	1479	81	743	89	3.21	0.07	07/84		7.3	0.25
073002	Crake	Low Nibthwaite	SD 294882	73.0	VA	1963–90	2169	1747	422	**2183**	**88**	1208	73	4.05	0.12	08/83	19.8	8.7	0.49
073003	Kent	Burneside	SD 507956	73.6	VA	1981..87	*2010*	1565	445	1887	81	1319	84	3.65	0.16	08/84		9.0	0.25
073005	Kent	Sedgwick	SD 509874	209.0	CBVA	1968–90	1750	1292	458	1557	80	905	71	8.56	0.66	07/84		19.7	1.17
073006	Cunsey Beck	Eel House Br	SD 369940	18.7	VA	1987–90		1732		2052	88	1481	89	1.03	0.05	07/89		2.4	0.08
073008	Bela	Beetham	SD 496806	131.0	FV	1969..90	1307	836	471	1136	81	528	71	3.47	0.37	07/84		8.3	0.48
073009	Sprint	Sprint Mill	SD 514961	34.6	FV	1981..90	2226	1697	529	1923	88	1387	84	1.86	0.09	07/84		4.4	0.14
073010	Leven	Newby Bridge	SD 367863	247.0	CC	1939–90	2157	1771	386	2788	54	1179	73	13.87	0.55	06/78		30.9	1.19
073011	Mint	Mint Bridge	SD 524944	65.8	FV	1970..90	1616	1153	463	1368	81	776	71	2.40	0.10	07/84		5.9	0.18
073013	Rothay	Miller Bridge Ho	NY 371042	64.0	VA	1986..90	2596	2304	292	2494	86	2062	87	4.68	0.63	05/87		10.7	0.40
074001	Duddon	Duddon Hall	SD 196896	85.7	CB	1968..90	2223	1832	391	2440	77	1234	73	4.98	0.32	05/80		12.5	0.41
074002	Irt	Galesyke	NY 136038	44.2	VA	1967..90	2779	2311	468	2818	80	1741	71	3.24	0.26	05/80	23.7	7.1	0.39
074003	Ehen	Ennerdale Weir	NY 084154	44.2	CC	1973..90	2685	1751	934	**2122**	**86**	1401	75	2.45	0.29	08/76		6.4	0.38
074005	Ehen	Braystones	NY 009061	125.5	VA	1974–90	1847	1299	548	1590	80	996	76	5.17	0.66	08/76		12.3	0.81
074006	Calder	Calder Hall	NY 035045	44.8	FV	1964..90	1831	1328	503	1774	70	**1107**	**89**	1.89	0.14	08/76		4.1	0.30
074007	Esk	Cropple How	SD 131978	70.2	VA	1976..90	2272	2022	250	2292	80	1620	76	4.50	0.18	05/80		10.9	0.37
074008	Duddon	Ulpha	SD 209947	47.9	CB	1977..90		2077		2385	81	1876	84	3.15	0.28	05/78		8.2	0.26
075001	St Johns Beck	Thirlmere Res	NY 313195	42.1	CC	1935..90	2663	652	2011	1297	54	157	73	0.87	0.13	10/75		2.0	0.16
075002	Derwent	Camerton	NY 038305	663.0	VA	1960..90	1775	1223	552	1628	67	705	73	25.71	2.04	06/78	181.7	57.9	3.26
075003	Derwent	Ouse Bridge	NY 199321	363.0	VA	1968–90	2013	1442	571	**1829**	**86**	825	73	16.60	1.00	06/78	92.1	39.6	1.89
075004	Cocker	Southwaite Br	NY 131281	116.6	VA	1967–90	1997	1382	615	**1665**	**86**	848	73	5.11	0.53	05/74	57.6	12.1	0.67
075005	Derwent	Portinscale	NY 251239	235.0	VA	1972–90	2232	1579	653	1894	82	946	73	11.77	0.48	05/80		27.8	1.14
075006 *	Newlands Bk	Braithwaite	NY 240239	33.9	VA	1968–80	2199	1540	659	1925	74	966	73	1.65	0.02	05/80	42.5	3.8	0.07

Station number	River name	Station name	Grid reference	Catchment area (sq. km)	Station type	Period of record	Mean ann. rainfall (mm)	Mean ann. runoff (mm)	Mean ann. loss (mm)	Max. ann. runoff (mm)	Year of max.	Min. ann. runoff (mm)	Year of min.	Mean flow (m^3s^{-1})	Min. mon. flow (m^3s^{-1})	Month/Year of min.	Mean ann. flood (m^3s^{-1})	10 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
075007 *	Glenderamackin	Threlkeld	NY 323248	64.5	VA	1969–78	1541	1121	420	1538	74	769	73	2.29	0.14	08/76		5.6	0.20
075009	Greta	Low Briery	NY 286242	145.6	VA	1971–90	1965	1126	839	1503	81	597	73	5.20	0.46	08/76		13.0	0.60
075010 *	Marron	Ullock	NY 074238	27.7	FV	1972–77	1450	940	510	1113	77	648	73	0.83	0.11	08/76		1.8	0.12
075016	Cocker	Scalehill	NY 149214	64.0	MIS	1977..90	*2475*	1869	606	2168	82	1692	84	3.79	**0.23**	**06/88**		9.0	0.32
075017	Ellen	Bullgill	NY 096384	96.0	FV	1982–90	1136	778	358	929	82	562	89	2.37	0.21	07/84		5.2	0.26
076001	Haweswater	Burnbanks	NY 508159	33.0	CC	1953..90	2462	593	1869	2046	54	**272**	**87**	0.62	0.11	10/84		0.7	0.21
076002	Eden	Warwick Bridge	NY 470567	1366.7	VA	1966..90	1301	791	510	996	67	451	73	34.27	**4.41**	**07/89**	453.8	74.4	6.22
076003	Eamont	Udford	NY 578306	396.2	VA	1961..90	1832	1193	639	1741	80	550	73	14.99	1.05	08/84	166.7	32.0	2.42
076004	Lowther	Eamont Bridge	NY 527287	158.5	VA	1962..90	1851	681	1170	992	66	384	76	3.42	0.48	07/84	120.9	7.6	0.64
076005	Eden	Temple Sowerby	NY 605283	616.4	VA	1964–90	1164	731	433	968	79	444	73	14.28	1.18	07/84	258.1	32.3	1.86
076007	Eden	Sheepmount	NY 390571	2286.5	VA	1967..90	1195	695	500	838	82	389	73	50.40	7.02	08/76	538.0	108.1	9.94
076008	Irthing	Greenholme	NY 486581	334.6	VA	1967..90	1055	669	386	932	85	413	73	7.10	0.76	08/76	170.4	17.2	0.98
076009	Caldew	Holm Hill	NY 378469	147.2	VA	1968..90	1431	983	448	1243	82	557	73	4.59	0.69	08/76	87.5	10.7	0.80
076010	Petteril	Harraby Green	NY 412545	160.0	MIS	1970..90	927	414	513	527	82	210	73	2.10	0.25	08/76		5.2	0.30
076011	Coal Burn	Coalburn	NY 693777	1.5	CC	1967..90	1272	967	305	1240	83	652	71	0.05	0.00	12/84	2.1	0.1	
076014	Eden	Kirkby Stephen	NY 773097	69.4	B VA	1971..90	1399	1161	238	**1534**	**86**	792	73	2.55	0.06	07/84		6.4	0.15
076015	Eamont	Pooley Bridge	NY 472249	145.0	CC	1970–90	2223	1735	488	2152	82	861	73	7.98	0.60	06/78		18.3	0.90
077001	Esk	Netherby	NY 390718	841.7	VA	1963..90	1444	951	493	**1319**	**90**	587	73	25.38	2.26	07/84	736.1	61.4	3.18
077005	Lyne	Cliff Bridge	NY 412662	191.0	FV	1977..90	*1210*	881	329	1104	85	693	84	5.33	0.43	08/83		14.5	0.48

Hydrometric Statistics

	Period	Rainfall (mm)	% of pre1986	Runoff (mm)	% of pre1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
068001 **Weaver at Ashbrook** C.A: 622.0 km²	**37..85**	**756**		**288**		**5.68**	**212.4**	**08/02 1946**	**0.39**	**17/08 1976**	**12.4**	**3.24**	**1.12**
M.A: NRA-NW Level: 16m Local Number: 6880504													
F.A.R: PGE B.F.I: .53 Sensitivity: 11.6	1986	751	99	290	101	5.72	46.8	16/04	1.37	16/10	14.4	3.11	1.50
Comment: Initially a river section (from 1937). Early gaugings lost; rating accuracy unknown. Mobile control. Data before 1972, particularly low flows, unreliable. Unstable low flow rating led to relocation 400m d/s with an informal Flat V control and cableway in 8/78. Prone to weed and algal growth. High flow rating (above 40 m^3s^{-1}) has yet to be defined. # Flat catchment includes western half of Crewe. Post glacial deposits over (mostly) Keuper Marl.	1987	748	99	337	117	6.65	51.4	23/08	1.82	09/07	14.3	4.23	2.19
	1988	741	98	320	111	6.30	47.4	15/03	1.81	12/09	14.0	3.35	1.92
	1989	661	87	233	81	4.59	45.7	14/12	0.98	21/08	9.9	2.50	1.07
	1990	703	93	273	95	5.39	64.1	28/01	0.88	06/08	13.9	2.53	1.13
068003 **Dane at Rudheath** C.A: 407.1 km²	**49..85**	**880**		**358**		**4.62**	**134.5**	**04/01 1983**	**0.43**	**17/10 1949**	**10.2**	**2.93**	**0.91**
M.A: NRA-NW Level: 13m Local Number: 6881210													
F.A.R: SPGEI B.F.I: .51 Sensitivity: 10.8	1986	885	101	419	117	5.40	**193.6**	**30/12**	0.86	18/07	11.2	3.39	0.98
Comment: Originally a VA section; charts from May 1949. Low flows poor before 6/57 (bed lowered). Gauging by wading or from an u/s bridge. Mobile control gave unreliable results. Informal Flat V weir and cableway installed 10/81. Highest flows inundate lhb (3.6m). Headwater transfers particularly to Rudyard and Bosley reservoirs for canal usage. # Headwaters in the southern Pennines but, for the most part, the river meanders over the Cheshire plain with varying depths of post glacial drift overlying Triassic sandstone and marl.	1987	895	102	502	140	6.48	**270.2**	**23/08**	1.59	27/05	11.5	4.37	1.92
	1988	904	103	463	129	5.96	141.1	13/03	1.02	24/06	11.2	3.49	1.52
	1989	795	90	316	88	4.08	63.0	21/12	0.69	04/10	9.6	2.64	0.79
	1990	854	97	354	99	4.58	81.5	28/01	0.61	05/08	10.1	2.53	0.74
068004 **Wistaston Brook at Marshfield Bridge** C.A: 92.7 km²	**57..85**	**752**		**379**		**1.11**	**16.2**	**14/01 1968**	**0.15**	**02/09 1984**	**2.0**	**0.80**	**0.31**
M.A: NRA-NW Level: 30m Local Number: 6880403													
F.A.R: PGEI B.F.I: .62 Sensitivity: 13.0	1986	772	103	277	73	0.81	11.6	30/12	0.20	24/08	1.5	0.60	0.28
Comment: Initially a 6m wide section on a bend with chart records from 1955, but data are poor. Unstable control obliged a move u/s in 9/72; low flow cotrol installed 1978 and modified to an informal Flat V piled weir in 5/80. Silt accumulates behind weir in times of low flow. Flows above 0.7m less reliably measured. Bank full at 2.3m. # Headwaters are in farmland but central and southern parts of Crewe dominate the lower half of the catchment. Otherwise, post glacial deposits over Keuper Marl.	1987	743	99	340	90	1.00	**21.4**	**23/08**	0.31	08/05	1.5	0.75	0.41
	1988	741	99										
	1989	650	86										
	1990	732	97	234	62	0.69	11.1	29/01	**0.08**	**06/08**	1.5	0.44	0.17
068005 **Weaver at Audlem** C.A: 207.0 km²	**53..85**	**747**		**251**		**1.65**	**28.3**	**17/04 1959**	**0.05**	**25/08 1976**	**3.7**	**0.91**	**0.28**
M.A: NRA-NW Level: 45m Local Number: 6880301													
F.A.R: PGE B.F.I: .50 Sensitivity: 11.6	1986	723	97	251	100	1.65	18.1	17/04	0.21	27/07	4.2	0.83	0.25
Comment: Some level measurement at site since 1936 but continuous records from 1951 when rectangular thin-plate weir was installed to control low flows. Current meter calibration for medium flows. New recorder house in 1969 and modern rating assumed to apply from then. More gaugings needed at higher flows. Only minor groundwater abstractions and returns. # The (very flat) catchment is covered by post glacial deposits over marl, clay and sand. Mainly mixed farmland with only a few villages.	1987	729	98										
	1988	714	96	275	110	1.80	18.8	23/01	0.30	17/08	4.4	0.73	0.36
	1989	653	87	195	78	1.28	19.7	21/12	0.14	08/08	2.7	0.49	0.17
	1990	676	90	237	94	1.56	22.5	28/01	0.09	03/08	4.0	0.42	0.12
068007 **Wincham Brook at Lostock Gralam** C.A: 148.0 km²	**62..85**	**844**		**440**		**2.06**	**59.2**	**03/11 1984**	**0.09**	**28/08 1984**	**4.1**	**1.43**	**0.32**
M.A: NRA-NW Level: 16m Local Number: 6881213													
F.A.R: PGEI B.F.I: .54 Sensitivity: 10.1	1986	802	95	437	99	2.05	22.5	30/12	0.54	03/07	4.5	1.31	0.63
Comment: Open channel section from 10/60. Informal steel pile control installed 4/82.Siltation became a problem during summer 1988. Gauging is by wading or cableway. Vandal-prone. Bankfull 2.0m.	1987	864	102	587	133	2.76	24.8	23/08	0.82	13/07	5.0	1.97	0.99
	1988	874	104	581	132	2.72	19.6	13/03	0.83	16/06	5.2	1.88	1.05
	1989	744	88	422	96	1.98	17.8	14/12	0.70	04/10	3.9	1.46	0.81
	1990	819	97										
068015 **Gowy at Huxley** C.A: 49.0 km²	**81-85**			**263**		**0.41**	**19.5**	**06/08 1981**	**0.06**	**29/07 1984**	**0.9**	**0.26**	**0.10**
M.A: NRA-NW Level: 17m Local Number: 6884014													
F.A.R: PG B.F.I: .49 Sensitivity: 17.8	1986	719		228	87	0.35	7.1	29/12	0.07	19/07	0.8	0.20	0.09
Comment: Some level records from September 1973 but shallow V sheet pile control installed in May 1979 enabling sensible flow record to commence. However, flows above 1.5 m^3s^{-1} should be treated with caution until high flow rating established. # River shares most of its valley with the Shropshire Union Canal. Catchment mostly in Cheshire plain; post glacial drift overlying Triassic sandstone and marl.	1987	740		332	126	0.52	13.2	23/08	0.12	29/05	0.9	0.31	0.16
	1988	754		294	112	0.46	7.8	19/10	0.11	06/08	0.9	0.29	0.13
	1989	649		201	76	0.31	17.1	24/12	0.06	20/08	0.6	0.18	0.08
	1990	680											

	Period	Rainfall (mm)	% of pre1986	Runoff (mm)	% of pre1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
068020 **Gowy at Bridge Trafford** C.A: 156.0 km²	**81-85**	**711**		**254**		**1.26**	**38.4**	**06/08 1981**	**0.21**	**26/07 1984**	**2.5**	**0.69**	**0.28**
M.A: NRA-NW Level: 4m Local Number: 6884027	1986	716	101	211	83	1.04	23.7	30/12	0.25	02/07	2.3	0.53	0.28
F.A.R: PG B.F.I: .46 Sensitivity: 13.4	1987	751	106	348	137	1.72	29.5	24/08	0.32	08/07	3.3	0.94	0.38
Comment: Flat V Crump profile weir (1:5) with cableway installed 8/79. Replaced Picton (68002), 1km d/s. Similar weed growth problems but to lesser extent. Midsummer flows estimated by gauging from u/s bridge). Rating quite well defined to about 5 m^3s^{-1}. Higher flows over-estimated by rating in current use. # The catchment is wholly on the Cheshire Plain; Low relief, glacial drift over Triassic sst and marl.	1988	752	106	274	108	1.35					2.9	0.74	0.37
	1989	649	91	163	64	0.81					1.6	0.43	0.21
	1990	684	96										
069002 **trwell at Adelphi Weir** C.A: 559.4 km²	**49..85**	**1275**		**1031**		**18.29**	**485.1**	**27/10 1980**			**38.2**	**11.61**	**4.58**
M.A: NRA-NW Level: 24m Local Number: 6980511	1986	1376	108	1078	105	19.12	268.8	30/12	4.36	03/10	41.8	12.03	5.19
F.A.R: SPGEI B.F.I: .49 Sensitivity: 9.5	1987	1231	97	949	92	16.83	187.3	16/10	6.27	10/05	35.6	11.85	7.06
Comment: A 40m wide broad-crested weir with some problems of weed growth and drowning at high flow. Some records from 1935 but routine data acquisition began in 1949. Rating established by model test and metering u/s at the Manchester racecourse gauge (closed 2/86). Many abstractions and storage reservoirs. # Most of the catchment comprises post glacial drift over heavily faulted Carboniferous grit, shale and sandstone; it includes the urban/industrial areas of Bolton, Bury and Rochdale.	1988	1369	107	1063	103	18.80	209.0	24/01	5.21	22/06	39.6	13.05	5.90
	1989	1142	90	814	79	14.44	159.2	30/06	4.82	07/08	31.4	9.41	5.13
	1990	1264	99	922	89	16.36	202.7	26/12	4.94	16/09	33.0	10.66	5.68
069003 **Irk at Scotland Weir** C.A: 72.5 km²	**37..85**	*1049*		**849**		**1.95**	**72.9**	**11/06 1970**	**0.14**	**30/06 1961**	**3.6**	**1.41**	**0.48**
M.A: NRA-NW Level: 26m Local Number: 6980612	1986	1122	107	1017	120	2.34	34.4	29/12	1.03	18/07	4.0	1.87	1.10
F.A.R: SPGEI B.F.I: .54 Sensitivity: 22.0	1987	991	94	711	84	1.64	17.5	17/12	0.62	03/10	2.9	1.22	0.77
Comment: An old weir, diagonal to flow and on a bend in a heavily polluted river where siltation and debris are recurrent problems. Ratings by model (1936) and current meter gauging at Redbank 1km u/s. Siltation and weed growth throws particular doubt on low-flow records before 1976, although none are good. Weir damaged by a flood in December 1983. Many industrial abstractions and effluent discharges. # The catchment is largely developed and lies on post-glacial Boulder Clay, mostly over Carboniferous shale, sandstone and coal.	1988	1086	104	729	86	1.67	22.9	18/08	0.57	17/09	3.1	1.17	0.66
	1989	909	87	567	67	1.30	35.3	28/10	0.43	30/09	2.6	0.79	0.46
	1990	1008	96	574	68	1.32	31.1	27/01	0.43	16/09	2.7	0.80	0.47
069006 **Bollin at Dunham Massey** C.A: 256.0 km²	**55..85**	**891**		**495**		**4.02**	**63.0**	**31/05 1964**	**0.31**	**27/08 1976**	**8.1**	**2.87**	**1.05**
M.A: NRA-NW Level: 13m Local Number: 6983536	1986	901	101	599	121	4.86	46.3	30/12	1.52	03/07	10.3	3.18	1.79
F.A.R: SPGEI B.F.I: .57 Sensitivity:	1987	909	102	712	144	5.78	44.0	23/08	1.99	06/05	10.6	4.24	2.36
Comment: V/A station with cableway a few kms u/s of confluence with the Manchester Ship Canal. Level records from 1937. Flows from 1954 but of poor quality. Rating only approx. owing to very unstable bed and weed growth. In 8/71, the Bridgewater Canal (crosses just u/s) burst its banks and disturbed the bed of the river - records were affected for at least 18 months. Reservoirs and many industrial abstractions and discharges. # Catchment includes Macclesfield. Post-glacial deposits over marl in lower parts; Millstone Grit higher up.	1988	939	105	673	136	5.45	40.3	18/08	1.60	23/06	10.7	3.80	2.00
	1989	793	89	477	96	3.87	33.3	21/12	1.06	04/10	8.2	2.66	1.19
	1990	874	98	533	108	4.32	41.6	28/01	1.36	27/05	9.1	2.64	1.59
069007 **Mersey at Ashton Weir** C.A: 660.0 km²	**81-85**	**1158**		**556**		**11.64**	**422.9**	**09/12 1983**	**1.90**	**26/08 1984**	**23.8**	**7.07**	**2.92**
M.A: NRA-NW Level: 15m Local Number: 6982726	1986	1276	110	632	114	**13.22**	**502.9**	**30/12**	2.64	04/10	28.3	7.81	3.01
F.A.R: SPGEI B.F.I: .51 Sensitivity: 5.4	1987	1119	97	540	97	11.30	157.5	25/06	3.60	10/05	20.9	8.62	4.61
Comment: Replaced 69001 but, despite theoretical superiority at low flows, still doubts about rating curve. Compound broad-crested weir with cableway, no divide piers so theoretical (and model) ratings complemented by gaugings.No gaugings taken since 7/78 for safety reasons, more needed. Longdendale reservoirs control 10% of the catchment. # Tributary streams rise mainly on western slopes of Pennines (Millstone Grit). Lower catchment includes much of Greater Manchester, lies on post-glacial deposits over Triassic sandstone and marl.	1988	1212	105										
	1989	1005	87	419	75	8.77	164.5	24/03	2.10	01/10	19.9	5.47	2.36
	1990	1100	95	455	82	9.52	237.7	28/12	2.37	05/08	19.8	5.82	2.66
069012 **Bollin at Wilmslow** C.A: 72.5 km²	85-85						9.3	29/01 1985	0.49	05/10 1985	1.8	0.82	0.54
M.A: NRA-NW Level: 59m Local Number: 6983435	1986	968		553		1.27	20.5	30/12	0.40	24/08	2.4	0.95	0.49
F.A.R: SPGEI B.F.I: .62 Sensitivity: 9.4	1987	962		635		1.46	18.0	23/08	0.58	27/05	2.5	1.15	0.68
Comment: Compound Crump profile weir, crest lengths 4.1m and 4.3m (total); divide piers 1.0m (probable drowning stage), wing walls 2.0 m. Silts up, cleaned quarterly. Crest tapping well bricked off. Calibration now by current meter; u/s for low flows, d/s off road bridge for high. Responsive. Substantial flow modifications. # Moderate relief catchment with steep, reservoired headwaters. Upper catchment drains Millstone Grit, generally drift free.Otherwise boulder clay and glacial sands and gravel over P-T sst. Contains Macclesfield.	1988	982		609		1.40	12.3	18/08	0.46	18/06	2.5	1.01	0.59
	1989	845		463		1.06	11.0	24/02	0.45	24/09	2.1	0.79	0.48
	1990	944		501		1.15	15.3	27/01	0.40	10/08	2.1	0.79	0.45
069013 **Sinderland Brook at Partington** C.A: 44.8 km²	82..85			362		0.51	8.6	21/12 1985	0.10	29/11 1985		0.33	0.14
M.A: NRA-NW Level: 13m Local Number: 6983132	1986	849		409	113	0.58	10.2	30/12	0.16	13/10	1.2	0.38	0.19
F.A.R: PGEI B.F.I: .55 Sensitivity: 14.8	1987	881		490	135	0.70	16.6	26/06	0.19	27/05	1.2	0.51	0.25
Comment: Compound Crump profile weir, crest lengths 2.13m and 5.48m (total). Contained to wing wall height (2.0m). Weir much wider than u/s channel; big siltation problem, crest tapping usually blocked. Storm waters from Wythenshaw, Sale and the M56 are direct to the Mersey. Moderately responsive. # Very flat catchment, 60% urbanised although the bottom end is rural. Solid geology is Keuper Marl, 70%, and sst, 30%; SE half boulder clay covered. Soils fine red loams or clays.	1988	895		423	117	0.60	7.2	16/07	0.201	28/06	1.2	0.42	0.21
	1989	742											
	1990	810											
069015 **Etherow at Compstall** C.A: 156.0 km²	**77..85**	**1414**		**679**		**3.36**	**62.9**	**28/12 1978**	**0.29**	**12/05 1982**	**7.6**	**2.00**	**0.60**
M.A: NRA-NW Level: 74m Local Number: 6982219	1986	1569	111	786	116	3.89	54.0	30/12	0.79	17/07	8.8	2.15	0.87
F.A.R: SPGEI B.F.I: .48 Sensitivity: 23.7	1987	1295	92	637	94	3.15	28.6	03/06	1.14	29/05	5.7	2.33	1.26
Comment: Crump profile weir 18m wide, wing walls 2.8m high. Further contained by flood banks. 0.5 km u/s of Goyt confluence. Crest tapping readings were used to establish a non-modular rating; tapping no longer used. High flow gaugings not possible. Half the catchment drains through Longdendale reservoirs, with significant effect upon flows. # Predominantly Millstone Grit catchment,peat covered moorland in headwaters, steeper slopes drift free, boulder clay in lower catchment. Mixed urban and farmland lower down.	1988	1430	101	731	108	3.61	43.1	02/09	0.83	22/06	7.5	2.21	1.03
	1989	1187	84	523	77	2.59	38.2	23/03	0.55	09/09	5.9	1.32	0.62
	1990	1271	90	515	76	2.55	42.6	28/12	0.46	11/09	5.6	1.33	0.67
069017 **Goyt at Marple Bridge** C.A: 183.0 km²	**77..85**	**1151**		**669**		**3.88**	**81.8**	**28/12 1978**	**0.54**	**26/08 1984**	**8.7**	**2.35**	**0.78**
M.A: NRA-NW Level: 74m Local Number: 6982015	1986	1323	115	751	112	4.36	59.9	30/12	0.62	18/07	10.4	2.56	0.78
F.A.R: SPGEI B.F.I: .51 Sensitivity: 10.5	1987	1153	100	714	107	4.14	53.8	25/06	1.07	10/05	8.1	3.05	1.44
Comment: Compound Crump profile weir, crest lengths 7m and 11m (total). Wing walls 2.9m; divide piers 2.1m. Crest tapping unreliable, subject to siltation, data not used. The weir is fitted with bypass sluices. Reservoirs in headwaters. Moderate disturbance to flow regime. # Catchment mostly Millstone Grit and Coal Measures. Highest moorland peat covered, steeper slopes drift free. Boulder clay cover lower down. Mixed farmland, small towns and industry in main valley.	1988	1224	106	715	107	4.14	39.3	13/03	0.78	23/06	8.5	2.71	0.95
	1989	1010	88	504	75	2.92	39.4	23/03	0.56	30/09	6.6	1.85	0.66
	1990	1082	94	543	81	3.15	48.5	28/12	0.627	03/08	7.0	1.63	0.71
069020 **Medlock at London Road** C.A: 57.5 km²	**76-85**	**1050**		**487**		**0.89**	**26.9**	**09/12 1983**	**0.14**	**30/06 1984**	**1.8**	**0.62**	**0.29**
M.A: NRA-NW Level: 31m Local Number: 6980713	1986	1151	110	495	102	0.90	16.2	31/10	0.25	27/09	1.8	0.59	0.28
F.A.R: SPGEI B.F.I: .54 Sensitivity: 21.2	1987	1040	99	478	98	0.87	11.8	25/06	0.19	13/07	1.6	0.64	0.37
Comment: A non-standard weir in a rectangular channel (brick and concrete panel walls). The weir was designed as an entrance sill to the culvert downstream. Theoretical formula in use to November 1976 when superseded by current meter based rating which is difficult to obtain. Greatly affected by effluent discharges with consequent heavy pollution; also problems with debris on weir. # The catchment is heavily urbanised. Any natural runoff is generated on soils derived from post-glacial deposits lying mostly over Coal Measures.	1988	1153	110	515	106	0.94	15.1	18/08	0.27	23/06	1.7	0.70	0.34
	1989	942	90	473	97	0.86	20.9	23/03	0.25	29/09	1.8	0.56	0.29
	1990	1069	102	514	106	0.94	23.0	27/06	0.22	17/06	1.9	0.64	0.26

	Period	Rainfall (mm)	% of pre1986	Runoff (mm)	% of pre1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
069023 Roch at Blackford Bridge C.A: 186.0 km²	**78..85**	**1259**		**927**		**5.47**	**253.3**	**09/12 1983**	**1.07**	**26/08 1984**	**10.9**	**3.33**	**1.58**
M.A: NRA-NW Level: 63m Local Number: 6980205													
F.A.R: SPGEI B.F.I: .50 Sensitivity: 9.9	1986			953	103	5.62	132.4	30/12	1.39	25/09	12.8	3.04	1.54
Comment: Broad-crested mill-type weir curved (in plan) and uneven with debris problems. Siltation problems u/s - periodically affecting inlet pipe. Prior to January 1976 rating based on theoretical formula, unsafe. Current meter rating established since then could be applied retrospectively (to 1949 perhaps) except for doubts about state of weir in earlier years. Several water supply reservoirs in headwaters. # Catchment is highly urbanised (Rochdale) in lower half. Peat moorland tops. Mostly Coal Measures with Millstone Grit to the east.	1987			751	81	4.43	67.6	12/11	1.56	27/05	9.4	2.95	1.74
	1988			896	97	5.27	96.4	24/01	1.15	22/06	10.7	3.29	1.55
	1989			662	71	3.90	63.2	30/06	1.15	27/07	8.6	2.32	1.32
	1990			739	80	4.36	77.4	27/01	1.34	27/05	9.3	2.64	1.42
069024 Croal at Farnworth Weir C.A: 145.0 km²	**81-85**	**1353**		**657**		**3.02**	**80.2**	**09/12 1983**	**0.38**	**24/08 1984**	**7.2**	**1.43**	**0.62**
M.A: NRA-NW Level: 52m Local Number: 6980408													
F.A.R: SPGEI B.F.I: .39 Sensitivity: 30.3	1986			725	110	3.33	70.6	30/12	0.55	25/09	8.3	1.48	0.61
Comment: 45m wide weir in shallow river so very insensitive at low flows. River meanders, flows above 70 m^3s^{-1} will bypass station on inside of a loop. Some records from 1948 but low and medium flows before 1976 are of doubtful quality. Several reservoirs upstream. Many effluent discharges lower down. # Peat moorland over Millstone Grit on the tops. Heavy urbanisation (Bolton) on Boulder Clay over Coal Measures in the lower parts.	1987			642	98	2.95	52.0	16/10	0.61	07/07	7.4	1.58	0.77
	1988			754	115	3.46	58.9	19/10	0.59	19/06	8.2	1.86	0.73
	1989			550	84	2.53	38.4	30/06	0.60	02/10	5.2	1.44	0.64
	1990			601	91	2.76					5.7	1.64	0.75
069027 Tame at Portwood C.A: 150.0 km²	**78..85**	**1201**		**872**		**4.15**	**101.4**	**09/12 1983**	**0.98**	**25/08 1984**	**8.3**	**2.87**	**1.42**
M.A: NRA-NW Level: 43m Local Number: 6982423													
F.A.R: SPGEI B.F.I: .58 Sensitivity: 13.5	1986	1345	112	1169	134	5.56	68.8	29/12	1.64	12/10	11.1	4.20	1.82
Comment: Over 100 year old curved mill type weir just below 90 degree bend and 2km above confluence with Goyt. Meandering reach but bypassing on right bank floodplain prevented by stop banks. A cut to the old mill was closed in 1967. A model-based calibration was in use before 1970 but now superseded by one based on current meter gaugings. # For the most part a narrow, steep sided valley network on the Millstone Grit with peat moorland in the headwaters; heavily urbanised in lower half of catchment.	1987	1156	96	953	109	4.53	32.4	04/01	1.86	31/05	7.6	3.68	2.23
	1988	1311	109	1048	120	4.97	69.7	18/08	1.43	18/06	9.4	3.60	1.74
	1989	1091	91	801	92	3.81	61.7	24/03	1.41	11/10	7.2	2.71	1.54
	1990	1200	100										
069030 Sankey Brook at Causey Bridge C.A: 154.0 km²	**76..85**	**889**		**816**		**3.98**	**180.7**	**25/09 1976**	**0.33**	**31/07 1983**	**5.6**	**1.76**	**0.80**
M.A: NRA-NW Level: 7m Local Number: 6984039													
F.A.R: PEI B.F.I: .54 Sensitivity: 7.1	1986	959	108	601	74	2.94	33.1	30/12	0.82	15/10	5.9	1.87	1.00
Comment: Records from this river section date from 1953. Early problems with backwater due to sluice operation (until closure of adjacent canal - 1976) and vegetation. However, improvements made d/s in 1976/7 led to continual regrading of the channel; frequent changes of calibration (also caused by floods in 1981). New bed control built July 1983. Industrial abstraction and effluent. # Mixed farmland predominates but extensive urbanisation (St Helens) in the centre. Boulder Clay over Bunter Sandstone in the south, Coal Measures to the north.	1987	943	106	625	77	3.05	33.2	23/08	0.63	16/05	5.6	2.12	1.18
	1988	960	108	586	72	2.85	22.3	19/03	0.83	19/06	5.5	1.89	1.02
	1989	855	96	519	64	2.53	32.8	04/11	1.01	29/09	4.8	1.68	1.13
	1990	867	98	497	61	2.43	24.3	27/01	0.894	23/07	4.4	1.59	0.85
069031 Ditton Brook at Greens Bridge C.A: 47.9 km²	81..85			736		1.12	21.0	09/10 1983	0.30	30/07 1983	2.1	0.75	0.44
M.A: NRA-NW Level: 5m Local Number: 6984441													
F.A.R: GEI B.F.I: .55 Sensitivity: 8.2	1986	894		722	98	1.10	14.1	29/12	0.34	28/09	2.0	0.76	0.42
Comment: Rated channel section with no bed control, subject to tidal influence. Current metering is reasonably consistent; tidal influnce could be accounted for. Substantially affected by WRW discharges from Liverpool suburbs. # Low relief catchment, entirely blanketed by sandy boulder clay over Bunter Sst. Northern and western boundaries heavily urbanised - approx 50% of the catchment. Otherwise mixed farming.	1987	936		872	118	1.32	22.9	23/08	0.43	25/05	2.3	0.96	0.52
	1988	910		769	104	1.16	12.9	19/03	0.46	14/05	2.0	0.84	0.55
	1989	796											
	1990	806											
069032 Alt at Kirkby C.A: 90.1 km²	**79-85**	**880**		**529**		**1.51**	**26.9**	**02/06 1981**	**0.37**	**27/08 1984**	**3.0**	**0.98**	**0.52**
M.A: NRA-NW Level: 9m Local Number: 6984744													
F.A.R: GEI B.F.I: .52 Sensitivity: 16.4	1986												
Comment: Originally (from 1963) an open channel section but patterns of silt deposition and removal prevented sensible calibration until 1977 when a Flat V bed control was built. Weir is permanently drowned. Inlet pipe needs regular flushing. Gaugings taken from u/s footbridge. Vandal prone. Industrial abstraction and discharges. # Catchment highly (70%) urbanised containing northern parts of Liverpool, also Kirkby. Very flat, effective boundary on south-west side is difficult to define. Mostly blown sand deposits over Bunter Sandstone.	1987			575	109	1.64	**31.6**	**23/08**	0.53	25/05	2.8	1.12	0.66
	1988												
	1989			467	88	1.33	27.6	04/11	0.40	01/08	2.5	0.86	0.48
	1990			441	83	1.26	28.6	19/08	0.37	07/08	2.2	0.77	0.44
069035 Irwell at Bury Bridge C.A: 155.0 km²	**77..85**	**1344**		**1176**		**5.78**	**219.9**	**21/03 1981**	**0.01**	**15/05 1984**	**13.7**	**3.33**	**0.52**
M.A: NRA-NW Level: 75m Local Number: 6980104													
F.A.R: SPGEI B.F.I: .34 Sensitivity: 90.1	1986			1181	100	5.80	218.3	18/11	**0.00**	**22/07**	15.8	2.22	0.16
Comment: Velocity-area station with an old broad-crested weir, oblique to the river, as its (insensitive) control. A rating relationship, based on gaugings taken d/s, was developed in 1979 - deemed applicable to about 100 m^3s^{-1}. However, more recent gaugings have not been consistent; calibration under review. Runoff influenced by storage reservoirs and abstractions. # Catchment mostly upstream of urban and industrial areas dominating downstream station at Adelphi Weir (69002). Geology: post-glacial deposits over Carboniferous rocks.	1987													
	1988												
	1989												
	1990			963	82	4.73	**227.7**	**26/12**	**0.00**	**10/08**	11.2	2.28	
069037 Mersey at Westy C.A: 2030.0 km²													
M.A: NRA-NW Level: 3m Local Number: 6983555													
F.A.R: SPGEI B.F.I: .51 Sensitivity:	1986	1176		656		42.21	140.0d	23/11	4.96	07/10	92.7	31.38	9.62
Comment: Ultrasonic station replacing an earlier unsatisfactory site at Howley (1.5km downstream).	1987	1074		600		38.62	129.0d	16/10	7.44	27/05	80.2	30.03	13.40
	1988	1160											
	1989	975		474		30.52	127.0d	24/03	3.70	20/09	77.2	20.68	5.85
	1990	1064											
069041 Tame at Broomstair Bridge C.A: 113.0 km²	81-85			1055		3.78	115.7	09/12 1983	0.86	08/06 1982	7.3	2.66	1.20
M.A: NRA-NW Level: m Local Number:													
F.A.R: S B.F.I: Sensitivity:	1986			1247	118	4.47	59.3	30/12	1.25	05/10	8.1	3.79	1.48
Comment: Non-standard short crested mill weir acts as a control for medium and high flows. Gaugings made from the bridge immediately u/s. Bridge arch shape likely to affect high flows as it extends to river level. Reservoired headwater affect low flows. # Millstone grit and Coal Measures catchment, peat covered on high moors. Steeper valley sides drift free, otherwise mixed glacial drift cover. Heavily urbanised lower catchment.	1987			1098	104	3.94	29.7	04/01	1.69	29/05	6.1	3.43	2.08
	1988			1208	115	4.32	60.6	18/08	1.28	22/06	7.9	3.44	1.63
	1989			860	82	3.08	62.6	23/03	1.11	09/12	5.1	2.54	1.30
	1990			814	77	2.92	38.7	26/12	0.29	04/08	5.8	2.04	0.41
070002 Douglas at Wanes Blades Bridge C.A: 198.0 km²	**80-85**	**1112**		**619**		**3.89**	**49.0**	**09/10 1983**	**0.00**	**31/07 1983**	**7.2**	**2.87**	**0.62**
M.A: NRA-NW Level: 4m Local Number: 7080306													
F.A.R: SRPEI B.F.I: .54 Sensitivity:	1986	1139	102	638	103	4.01	54.9	30/12	0.77	17/10	7.9	2.68	1.04
Comment: Originally open channel section; data quality poor. Non-standard bed control installed in 1984 resulted in better data. Gauging is by wading and from u/s road bridge and by portable cableway. Tidally affected. Flow regime modified by headwater reservoirs and WRWs. # Moderate to low relief catchment, Coal Measures in the upper half, P-T ssts in the lower but entirely covered by boulder clay, peat and blown sand. Contains Wigan and Skelmersdale but mostly rural.	1987	1079	97	670	108	4.21	70.3	22/08	1.12	16/07	7.2	2.97	1.44
	1988	1100	99	626	101	3.92	32.9	26/12	0.11	25/06	7.7	2.89	0.86
	1989	991	89										
	1990	1010	91										

		Period	Rainfall (mm)	% of pre1986	Runoff (mm)	% of pre1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
070004	**Yarrow at Croston Mill** C.A: 74.4 km²	**76-85**	**1056**		**813**		**1.92**	**107.6**	**09/12 1983**	**0.22**	**27/06 1976**	**4.2**	**1.02**	**0.47**
M.A: NRA-NW	Level: 7m Local Number: 7080408	1986	1144	108	920	113	2.17	76.6	30/12	0.44	19/07	5.3	1.12	0.51
F.A.R: SPGEI	B.F.I: .42 Sensitivity: 18.7	1987	1068	101	894	110	2.11	**192.0**	**22/08**	0.56	29/05	4.2	1.15	0.64
Comment: A rated section; control exercised by an old, deteriorating mill weir, with 3m wide and 10m long crest, insensitive at low flows but giving a reasonable medium and high flow calibration. Rivington Reservoir (feeding mainly the R. Douglas) captures part of the original Yarrow headwaters. # Catchment includes Chorley. Post-glacial deposits over Coal Measures.		1988	1091	103	898	110	2.11	42.6	26/12	0.49	19/06	5.2	1.10	0.56
		1989	965	91	655	81	1.55	27.1	04/11	0.48	22/07	3.5	0.90	0.50
		1990	1017	96										
071001	**Ribble at Samlesbury** C.A: 1145.0 km²	**60-85**	*1346*		**919**		**33.36**	**891.3**	**12/12 1964**	**1.88**	**22/07 1984**	**81.5**	**16.41**	**4.41**
M.A: NRA-NW	Level: 6m Local Number: 7183019	1986	1523	113	1080	118	39.20	477.5	03/12	3.94	03/03	109.2	16.53	5.22
F.A.R: SE	B.F.I: .32 Sensitivity: 5.6	1987	1333	99	908	99	32.98	409.8	22/08	5.64	28/05	78.2	18.92	6.63
Comment: Natural section with gravel shoal control affected by accretion of silt and weeds in summer. Just upstream of tidal limit. To overcome poor low flow calibration, large compound Flat V weir built (1970) 1km upstream. Intermittent record from weir due to extreme vandalism - finally closing in 1982. Well rated at main site for high flows. # Geology - Carboniferous Limestone and Millstone Grit; Boulder Clay over Coal Measures and Millstone Grit (Pennines). Lower Ribble adds little industry or population, being mostly agricultural.		1988	1518	113	1048	114	37.94	585.2	23/12	4.71	24/06	83.9	22.34	6.06
		1989	1170	87	700	76	25.41	367.6	24/03	2.92	10/09	67.1	12.21	3.61
		1990	1394	104	882	96	32.02	398.5	10/01	4.20	16/09	80.9	15.24	5.40
071004	**Calder at Whalley Weir** C.A: 316.0 km²	**63..85**	**1235**		**852**		**8.54**	**230.6**	**18/07 1964**	**1.04**	**07/09 1969**	**19.8**	**4.94**	**1.89**
M.A: NRA-NW	Level: 40m Local Number: 7182615	1986	1411	114	986	116	9.88	171.6	26/08	1.93	19/07	24.5	5.12	2.15
F.A.R: EI	B.F.I: .43 Sensitivity: 7.8	1987	1193	97	831	98	8.33	149.6	16/10	2.39	10/05	17.2	5.45	2.74
Comment: Natural river section from 1963; unstable ratings from mobile bed. from 10/70 control has been a Flat V weir, 30m downstream. Rating established from current metering from cableway. Severe weed growth problems. Vandal-prone. Few small reservoirs in headwaters. Minor direct abstractions. Many industrial discharges. Much pollution. # Catchment includes Accrington, Burnley and Nelson but there is a lot of moorland above the towns (about 20% urban overall). Boulder Clay over Coal Measures and Millstone Grit (Pennines).		1988	1336	108	921	108	9.20	108.4	02/01	1.97	24/06	20.0	5.94	2.32
		1989	1078	87	656	77	6.57	118.0	23/03	1.64	10/09	16.3	3.85	1.82
		1990	1246	101	808	95	8.09	112.8	10/01	1.89	15/09	18.0	4.60	2.11
071006	**Ribble at Henthorn** C.A: 456.0 km²	**68..85**	**1363**		**920**		**13.30**	**384.7**	**27/10 1980**	**0.51**	**26/08 1984**	**33.6**	**6.15**	**1.07**
M.A: NRA-NW	Level: 39m Local Number: 7180305	1986	1522	112	1138	124	16.45	187.2	18/11	0.94	21/07	51.1	7.06	1.15
F.A.R: N	B.F.I: .29 Sensitivity: 12.0	1987	1331	98	930	101	13.44	186.5	27/03	1.35	27/05	33.4	6.41	2.00
Comment: A natural section originally (1960); bed control added 5/65 to improve calibration. Superseded by a compound broad-crested weir built in 8/68. Insensitive, weed affected, leaks affect low flows. Largely natural runoff pattern. Only minor effluent discharges. # Mixed farming over most of catchment with several small towns. Moorland tops. Mainly Carboniferous Limestone overlain by Boulder Clay in the valleys. Millstone Grit on the south-east side.		1988	1533	112	1141	124	16.45	257.5	22/12	0.76	24/06	39.8	8.44	1.17
		1989	1141	84										
		1990	1425	105										
071008	**Hodder at Hodder Place** C.A: 261.0 km²	**77..85**	**1691**		**1057**		**8.74**	**276.0**	**21/09 1985**	**0.58**	**25/07 1984**	**22.4**	**3.94**	**0.95**
M.A: NRA-NW	Level: 42m Local Number: 7181610	1986	1778	105	1167	110	9.66	240.4	03/12	1.01	18/07	26.9	3.74	1.13
F.A.R: SRP	B.F.I: .31 Sensitivity: 10.3	1987	1589	94	978	93	8.09	172.9	21/08	1.21	29/05	21.0	4.00	1.45
Comment: Compound Crump profile weir, V shaped in centre section, built 9/69 to replace Higher Hodder Bridge (71803; 3km upstream; records from 1960) where calibration was unstable. Original cableway removed. Rating by metering from bridge 200m u/s in support of modified theoretical calibration. About 15% of catchment is controlled by Stocks Reservoir. # Catchment has mixed farming at lower levels but is mostly peat moorland. Millstone Grit and Carboniferous Limestone. Very lightly populated area.		1988	1806	107	1180	112	9.74	228.7	22/12	0.87	24/06	22.7	5.06	1.10
		1989	1379	82	764	72	6.32	105.0	18/03	0.82	29/09	18.4	2.77	0.87
		1990	1644	97										
071009	**Ribble at Jumbles Rock** C.A: 1053.0 km²	**80-85**			**1074**		**35.87**	**1221.0**	**27/10 1980**	**2.71**	**25/07 1984**	**87.4**	**17.32**	**4.20**
M.A: NRA-NW	Level: 31m Local Number: 7183056	1986	1546		1103	103	36.83	501.6	03/12	3.90	19/07	101.4	16.19	4.49
F.A.R: SRP	B.F.I: .32 Sensitivity:	1987	1347		925	86	30.88	442.3	04/01	4.74	27/05	73.2	17.04	6.11
Comment: Station just downstream of confluence with R. Calder. Intended to assess extent of dilution of that polluted tributary. Level records from 1964. Station resited 50m downstream in 1979 using same bedrock control. The two major tributaries, Calder (71004) and Hodder (71008), and the Ribble itself (71006) are all gauged immediately upstream. # For land use and geology, refer to the catchment descriptions for: 71004; 71006 and 71008.		1988	1535		1112	104	37.03	653.6	22/12	3.71	24/06	83.2	20.51	4.86
		1989	1178											
		1990	1417											
071010	**Pendle Water at Barden Lane** C.A: 108.0 km²	**71..85**	*1268*		**763**		**2.61**	**101.4**	**08/12 1983**	**0.35**	**08/07 1975**	**6.0**	**1.41**	**0.59**
M.A: NRA-NW	Level: 92m Local Number: 7182113	1986	1424	112	1082	142	3.71	96.3	25/08	0.55	16/07	9.6	1.74	0.61
F.A.R: SEI	B.F.I: .41 Sensitivity: 10.4	1987	1181	93										
Comment: Flat V weir constructed 1971. Calibration by current metering at the site itself and by level correlation with earlier site at Quakers-in-Pendle (71801; 1968-73; tube-mounted recorder; natural channel). Weir has proved unstable (ground failure suspected) and rating adapted. Substantially damaged 1987; awaiting rebuild. Many polluting discharges. # Catchment includes Nelson and Colne urban areas. Peat moorland tops. Geology is largely Carboniferous rocks overlain by Boulder Clay.		1988	1329	105	987	129	3.37	58.5	18/12	0.38	24/06	8.7	1.77	0.48
		1989	1065	84	650	85	2.23	72.8	23/03	**0.32**	**01/10**	5.9	1.10	0.37
		1990	1255	99	819	107	2.80					6.7	1.24	0.42
071011	**Ribble at Arnford** C.A: 204.0 km²	**66..85**	**1528**		**1186**		**7.67**	**142.1**	**27/10 1980**	**0.26**	**18/07 1971**	**19.2**	**2.95**	**0.49**
M.A: NRA-NW	Level: 117m Local Number: 7180103	1986	1652	108	1359	115	8.79	103.4	04/03	0.47	18/07	27.1	4.01	0.58
F.A.R: N	B.F.I: .25 Sensitivity: 13.8	1987	1448	95	1028	87	6.65	112.5	29/12	0.45	29/05	17.9	2.92	0.72
Comment: A Flat V weir with Crump profile, built 1972 to replace earlier station at Halton West (71802; 1966-73; 1km downstream; rated section) which had not had a satisfactory rating history. The new weir has not fared much better with problems of structural movement due to a geological fault and weed growth in summer. Highest station on Ribble; wholly natural flow regime. # Long narrow catchment, mostly moorland. Carboniferous Limestone mostly with some Millstone Grit. Post-glacial deposits on the valley floor.		1988	1631	107	1264	107	8.16	121.3	22/12	0.28	24/06	22.2	3.60	0.43
		1989	1230	80	808	68	5.22	101.4	23/03	**0.22**	**22/06**	14.4	1.92	0.30
		1990	1550	101										
071014	**Darwen at Blue Bridge** C.A: 128.0 km²	**77..85**			**979**		**3.97**	**162.9**	**21/03 1981**	**0.99**	**22/07 1984**	**8.0**	**2.39**	**1.30**
M.A: NRA-NW	Level: 8m Local Number: 7183122	1986			1145	117	4.65					10.2	2.60	1.49
F.A.R: PEI	B.F.I: .49 Sensitivity: 7.8	1987												
Comment: An old mill weir modified (1974) into a V profile, forms the main control. Water levels are measured 800m upstream so, at low flows, bed control in the intervening reach probably applies; high flow gauging needed to determine whether channel control takes over. Some small reservoirs in headwaters. Effluent discharges. # Upper catchment almost wholly urbanised (Blackburn, Darwen); agricultural in lower half. Glacial clays and gravels blanket Carboniferous grits and shales and P-T Sst near the gauge.		1988			1174	120	4.75	47.1d	02/09	1.39	19/06	10.0	3.00	1.58
		1989			890	91	3.61	63.5	24/05	1.32	01/10	7.9	2.30	1.41
		1990												
072002	**Wyre at St Michaels** C.A: 275.0 km²	**63..85**	**1268**		**756**		**6.59**	**190.5**	**08/12 1983**	**0.11**	**24/08 1976**	**15.3**	**3.11**	**0.55**
M.A: NRA-NW	Level: 4m Local Number: 7280517	1986	1389	110	947	125	8.26	167.1	03/12	0.68	18/07	22.0	3.53	1.03
F.A.R: SPG	B.F.I: .32 Sensitivity: 13.1	1987	1336	105	905	120	7.90	148.1	18/07	1.16	09/07	20.1	4.03	1.45
Comment: Natural section. Despite inclusion of artificial bed control, low flow calibration found insensitive and Flat V weir built 400m downstream in 1969. High flows still gauged at original site as weir drowns. Tidal effects at spring tide. Abstractions at Garstang but main distortions of flow are the Lune transfer (via Abbeystead) and bankside flood detention ponds. # Catchment is lightly populated, predominantly agricultural. Geology: marl, Bunter Sandstone, Millstone Grit in Wyre, Carboniferous Limestone in Brock catchment.		1988	1416	112	910	120	7.91	166.1	26/12	0.31	17/08	16.7	4.50	0.71
		1989	1080	85	523	69	4.56	59.0	07/02	0.40	25/07	11.9	2.05	0.47
		1990	1230	97	647	86	5.64	86.9	11/10	0.41	05/08	14.3	1.89	0.57

	Period	Rainfall (mm)	% of pre1986	Runoff (mm)	% of pre1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
072004 Lune at Caton C.A: 983.0 km²	**59..85**	*1459*		**1109**		**34.58**	**854.0**	**02/01 1982**	**1.17**	**25/08 1984**	**83.5**	**17.16**	**3.05**
M.A: NRA-NW Level: 11m Local Number: 7284629													
F.A.R: SRP B.F.I: .32 Sensitivity: 4.8	1986	1681	115	1291	116	40.23	623.3	03/12	2.89	22/07	109.5	18.74	3.54
Comment: Bazin type compound broad-crested weir operated after 10/6/77 as full-range station. Previously used for low/medium flows; high flows from Halton 3km downstream. High flows inundate wide floodplain. Transfers to river Wyre under Lancs. Conjunctive Use Scheme. Major abstractions for PWS. # Headwaters rise from Shap Fell and the Pennines. Mixed geology: Carboniferous Limestone, Silurian shales, Millstone Grit and Coal Measures, substantial Drift cover. Agriculture in valleys; grassland rising to peat moss in highest areas.	1987	1595	109	1189	107	37.08	673.9	29/12	3.61	27/05	91.5	18.64	6.37
	1988	1687	116	1297	117	40.31	589.1	23/12	2.45	24/06	93.5	23.37	3.67
	1989	1337	92	935	84	29.15	444.9	10/11	1.51	27/07	79.3	12.58	2.05
	1990	1643	113	1179	106	36.75	**873.6**	**19/02**	2.35	12/08	93.9	15.14	3.09
072005 Lune at Killington New Bridge C.A: 219.0 km²	**69..85**	**1568**		**1219**		**8.47**	**383.5**	**21/12 1985**	**0.39**	**26/07 1984**	**21.0**	**4.46**	**0.77**
M.A: NRA-NW Level: 83m Local Number: 7282421													
F.A.R: N B.F.I: .35 Sensitivity: 10.1	1986	1788	114										
Comment: Bazin type compound broad-crested weir. Skew flow caused by off-centre notch causes varying head across the section; that and siltation influences the rating. Stilling well leakage until 2/88. Fully contained. Above 1.6m (weir full) extrapolation of theoretical rating to bankfull (4.0m). Natural catchment. # Wet, high relief catchment. Silurian slates to the W, Carb. conglomerate and Lst N and E. Peat moss on high moors to NW, heather moss in N. Lower valleys are boulder clay covered. Moorland, grass, arable farming	1987	1704	109	1391	114	9.66	194.9	27/12	1.01	27/05	22.0	4.72	1.65
	1988	1756	112	1465	120	10.15	142.5	28/07	0.67	24/06	22.0	6.29	0.86
	1989	1508	96	1186	97	8.24	260.9	10/11	**0.33**	**25/07**	22.4	3.15	0.42
	1990	1881	120	1496	123	10.39	264.5	19/02	0.81	04/08	25.2	4.30	0.98
072007 Brock at U/S A6 C.A: 32.0 km²	85-85			888		0.90	69.1	21/09 1985	0.09	10/07 1985	2.0	0.46	0.14
M.A: NRA-NW Level: m Local Number: 7280215													
F.A.R: N B.F.I: .32 Sensitivity:	1986	1539		1011	114	1.03	58.8	03/12	0.07	18/07	2.4	0.44	0.09
Comment: Rectangular section broad-crested weir with a central low-flow notch set between stone sidewalls. D/s is a stilling pool and a further broad-crested weir with twin low flow notches adjacent to the banks. Rated by current meter from u/s cableway. Coarse gravel shoals above weir on rhb. Natural catchment, flood warning site. # Moderate relief catchment with steep headwaters draining Millstone Grit (NE) and Carboniferous Lst (S). Peat on high moors, lower catchment boulder clay covered. Entirely rural.	1987	1477		996	112	1.01	74.5	21/08	0.11	08/07	2.4	0.50	0.15
	1988	1565		982	111	0.99	27.0	22/12	0.05	23/06	2.3	0.62	0.07
	1989	1188		622	70	0.63	22.9	18/03	0.05	19/06	1.6	0.26	0.06
	1990	1358											
072008 Wyre at Garstang C.A: 114.0 km²	**67..85**	*1391*		**939**		**3.40**	**142.0**	**08/12 1983**	**0.04**	**27/08 1976**	**8.3**	**1.59**	**0.33**
M.A: NRA-NW Level: 11m Local Number: 7280107													
F.A.R: PG B.F.I: .31 Sensitivity: 16.7	1986	1573	113										
Comment: Initially VA station with a gravel control. From 9/69 Flat V weir, 1:2, 1:2 and 1:20 slopes installed. Rated by gaugings. Flows affected by Garstang intake immediately u/s, Lune transfers via Abbeystead, by Garstang flood basin overspill during high flows and possibly by bankside gravel workings upstream. # Agricultural catchment with moorland-fed headwaters. Geology almost entirely Millstone Grit, peat on high moors, boulder clay covers lower catchment.	1987	1507	108										
	1988	1584	114	1105	118	3.98	108.9	26/12	0.33	23/06	8.6	2.25	0.43
	1989	1191	86	673	72	2.43	69.3	18/03	0.26	20/06	5.9	1.18	0.29
	1990	1388	100										
072009 Wenning at Wennington Road Bridge C.A: 142.0 km²	**81-85**	**1369**		**910**		**4.10**	**132.8**	**01/10 1981**	**0.16**	**26/08 1984**	**9.8**	**1.90**	**0.29**
M.A: NRA-NW Level: 39m Local Number: 7284326													
F.A.R: G B.F.I: .30 Sensitivity: 17.5	1986	1426	104	928	102	4.18	91.5	03/12	0.26	18/07	11.2	1.81	0.34
Comment: Flat V Crump profile weir. River well contained, stable rating. No permanent cableway. Algal growth and u/s siltation need regular attention. Groundwater abstraction for agriculture from the Millstone Grit aquifer. # Coal Measures and Millstone Grit faulted against Carboniferous Limestone, small area of impervious Silurian slate in extreme east. Boulder Clay over most of catchment with some alluvium and hill peat. Rural; agricultural with heather moor in south.	1987	1315	96	834	92	3.76	75.4	27/03	0.37	27/05	8.9	2.02	0.56
	1988	1510	110	992	109	4.45	95.1	22/12	0.23	24/06	10.1	2.48	0.34
	1989	1110	81	606	67	2.73	61.0	11/04	0.20	27/07	7.1	1.12	0.24
	1990	1369	100										
072011 Rawthey at Brigg Flatts C.A: 200.0 km²	**68..85**	*1796*		**1508**		**9.57**	**448.1**	**02/01 1982**	**0.43**	**19/06 1970**	**24.9**	**3.80**	**0.69**
M.A: NRA-NW Level: 84m Local Number: 7283423													
F.A.R: N B.F.I: .26 Sensitivity: 5.7	1986	1981	110										
Comment: Natural channel, approx 30m wide, well contained within rock banks and a wall, with a rock bed control. Cableway removed 9/75, so no good high range gaugings since. Stilling well siltation problems. Low and high range rating not good. Record contains many gaps. Natural catchment, very flashy. # High relief moorland catchment draining Carboniferous Lst and Millstone Grit. Peat on highest moors, boulder clay on lower slopes and in valleys.	1987	1800	100	1495	99	9.48	255.3	28/12	0.80	28/05	26.3	3.58	1.17
	1988	1923	107										
	1989	1546	86	1188	79	7.53					20.7	2.35	0.55
	1990	1934	108										
072015 Lune at Lunes Bridge C.A: 141.5 km²	85-85						461.0	21/12 1985	0.52	10/07 1985			
M.A: NRA-NW Level: m Local Number: 7282242													
F.A.R: N B.F.I: .33 Sensitivity:	1986	1762											
Comment: Non-standard, compound bed control built into the invert of a road bridge. Erosion renders low flows suspect. Gauging by wading and cableway (150m u/s - far enough to raise doubts about high flow calibration. Natural catchment, replaces Tebay (72010). # High relief, wet moorland catchment on Carboniferous Limestone. About 20% of the catchment covered by boulder clay.	1987	1667											
	1988	1724		1430		6.40	63.9d	01/01	0.35	03/07	14.6	3.77	0.48
	1989	1504											
	1990	1879		1553		6.97	266.2	04/02	0.49	12/08	16.5	2.68	0.63
072016 Wyre at Scorton Weir C.A: 88.8 km²	**81-85**			**1202**		**3.39**	**109.1**	**07/03 1981**	**0.00**	**25/07 1984**	**7.9**	**1.89**	**0.22**
M.A: NRA-NW Level: 32m Local Number: 7280102													
F.A.R: P B.F.I: .36 Sensitivity:	1986			1297	108	3.65	**134.9**	**03/12**	0.26	18/07	9.2	1.79	0.59
Comment: Non-standard weir with small fish pass (flow ignored). Rated by current meter. Original (1967) tube mounted recorder replaced by well in 1987. 8km upstream from 72008; Scorton records are used to study the Lune transfer (and because of the major geological fault d/s). Lune transfer effect (see 72002) and gravel workings (adjacent) affect high flow regime. # Agricultural catchment with moorland-fed headwaters. Geology almost entirely Millstone Grit.	1987	1597											
	1988	1669		1226	102	3.44	78.5	26/12	0.24	23/06	7.2	2.15	0.45
	1989	1257		743	62	2.09	48.4	18/03	0.00	01/09	5.2	1.17	0.16
	1990	1473		902	75	2.54	70.8	14/01	0.23	06/08	5.8	1.46	0.27
073002 Crake at Low Nibthwaite C.A: 73.0 km²	**63-85**	**2143**		**1728**		**4.00**	**32.5**	**03/01 1982**	**0.02**	**08/09 1976**	**8.6**	**2.93**	**0.49**
M.A: NRA-NW Level: 39m Local Number: 7387537													
F.A.R: SP B.F.I: .57 Sensitivity: 17.1	1986	2400	112	1939	112	4.49	19.0	28/10	0.23	27/07	9.9	3.27	0.46
Comment: Open stone walled channel with informal Flat V triangular weir control. Stable rating, full-range of flows contained. Permanent cableway. Minimal weed growth. Lowest flows unreliable. Headwater abstractions for PWS. Approx. 2km downstream of Lake Coniston - hence subdued hydrograph variation. # Predominantly impervious Silurian Ludlow slates with thin Carboniferous Coal Measures. Band of Boulder Clay over centre of catchment. Mountains in N supporting rough pasture and moorland, remainder grassland.	1987	2209	103	1833	106	4.24	26.8	27/03	0.86	28/05	7.8	3.21	1.15
	1988	2580	120	2189	127	5.05	19.3	02/01	0.28	06/07	9.3	4.34	0.45
	1989	1999	93	1543	89	3.57	23.7	09/03	0.07	08/08	8.3	2.33	0.27
	1990	2247	105	1707	99	3.95					9.2	2.53	0.78
073005 Kent at Sedgwick C.A: 209.0 km²	**68-85**	**1720**		**1257**		**8.33**	**276.4**	**21/12 1985**	**0.39**	**25/08 1984**	**19.1**	**5.15**	**1.18**
M.A: NRA-NW Level: 19m Local Number: 7380511													
F.A.R: IN B.F.I: .46 Sensitivity:	1986	1924	112	1475	117	9.78	98.1	22/03	0.87	27/07	22.8	6.01	1.36
Comment: Bazin type compound broad-crested weir, 27m wide with low crest 3m broad. Permanent cableway for medium to high flows. Insensitive as 3m notch too small. Flashy, widely fluctuating flows. Occasional weed problems. Predominantly natural Paper mill u/s has affected river levels. Minor industrial abstraction in Kendal. # High relief catchment drains impervious Pre-Cambrian to Silurian rocks where heather moorland and peat predominate. Carboniferous Limestone provides good grazing especially south of Kendal on Drift cover.	1987	1825	106	1423	113	9.43	149.7	27/12	1.48	28/05	20.9	5.70	2.33
	1988	1972	115	1548	123	10.23	92.5	08/10	0.80	24/06	22.4	7.54	1.16
	1989	1629	95	1180	94	7.82	194.6	09/03	0.49	26/07	19.5	3.83	0.64
	1990	1973	115	1424	113	9.44	167.8	19/02	0.44	29/06	22.9	4.87	1.65

	Period	Rainfall (mm)	% of pre1986	Runoff (mm)	% of pre1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
073006 **Cunsey Beck at Eel House Bridge** C.A: 18.7 km²													
M.A: NRA-NW Level: 63m Local Number:													
F.A.R: N B.F.I: Sensitivity:	1986												
Comment: VA station in an artificially straightened reach. Wooden sleeper low flow control (not for the early record), cableway. Heavy spates bring down appreciable bed load; large inlet pipe may emerge at low flows. The bulk of the catchment drains through Estwaite Water. # Steep, wet catchment draining Silurian shales, mudstones and sandstones. Minor superficial deposits. Westerly tributary to Windermere.	1987			1651 -		0.98	13.9	27/03	0.12	28/05	2.1	0.53	0.17
	1988			2057		1.22	8.5	02/01	0.07	24/06	2.7	0.93	0.09
	1989			1481		0.88	15.0	09/03	0.02	18/07	2.2	0.42	0.03
	1990			1741		1.03	8.3	26/12	0.08	14/08	2.6	0.49	0.15
073008 **Bela at Beetham** C.A: 131.0 km²	**69..85**	**1285**		**805**		**3.35**	**55.5**	**21/03 1981**	**0.30**	**20/08 1984**	**8.1**	**1.88**	**0.48**
M.A: NRA-NW Level: 11m Local Number: 7381013													
F.A.R: SG B.F.I: .50 Sensitivity: 13.8	1986	1409	110	907	113	3.77	36.6	03/12	0.51	29/09	9.9	1.99	0.56
Comment: Flat V Crump profile weir, 1:20 cross-slope. Top of wing walls 0.917m. Velocity-area for medium/high flows, no permanent cableway. Bankfull 1.188m, no bypassing.Severe, algal, fungal and weed problems. Minor compensation discharge from headwater reservoirs. Groundwater abstractions. # Predominantly Silurian slate with Carboniferous Limestone in lower reaches. Boulder Clay covers 70% catchment, giving rise to arable farming and permanent grassland. Rest is rough grazing.	1987	1473	115	1068	133	4.44	47.4	29/12	0.62	26/05	9.5	2.82	0.89
	1988	1429	111	1004	125	4.16	36.3	02/01	0.48	03/07	8.4	3.12	0.62
	1989	1158	90	706	88	2.93	35.2	10/11	**0.29**	**07/08**	7.6	1.30	0.36
	1990	1359	106	831	103	3.45					9.0	1.56	0.49
073009 **Sprint at Sprint Mill** C.A: 34.6 km²	**81-85**	**2197**		**1647**		**1.81**	**58.9**	**20/12 1985**	**0.06**	**27/08 1984**	**4.3**	**0.99**	**0.13**
M.A: NRA-NW Level: 58m Local Number: 7380203													
F.A.R: N B.F.I: .38 Sensitivity: 24.5	1986	2283	104	1832	111	2.01	22.3	05/12	0.11	27/07	5.1	1.23	0.17
Comment: Flat V Crump profile weir for low and medium flows (up to 0.62m). Portable cableway for medium/high flows; well gauged. Predominantly natural flow regime slightly influenced by mill sluice operation and discharges from Garnett Bridge Straining Plant 4km upstream. Flood warning station for Kendal. # High relief, very wet catchment drains an area of peat moss growing on Borrowdale Volcanics in extreme north, through grazing lands on Silurian and Ordovician slate, flags and shales to Boulder Clay covered lower reaches.	1987	2124	97	1696	103	1.86	33.1	27/12	0.19	28/05	4.3	1.02	0.33
	1988	2383	108	1928	117	2.11	21.9	09/01	0.12	24/06	4.7	1.40	0.17
	1989	1993	91	1462	89	1.60	40.1	10/11	0.07	25/07	4.1	0.79	0.10
	1990	2480	113										
073010 **Leven at Newby Bridge** C.A: 247.0 km²	**39-85**	*2135*		**1761**		**13.79**	**135.8**	**02/12 1954**	**0.11**	**07/10 1972**	**30.5**	**10.12**	**1.22**
M.A: NRA-NW Level: 37m Local Number: 7385430													
F.A.R: SPE B.F.I: .50 Sensitivity:	1986	2498	117	2030	115	15.90	66.2	25/11	0.72	22/07	39.2	11.30	1.03
Comment: Level record since 1939 from four different sites at Newby Bridge. All flow records from 1939 to 1974 combined into a single sequence. Since 5/5/71 compound Crump profile weir - increased sensitivity at low flows. Full-range. Just d/s of Lake Windermere - highly regulated, compensation flow. Major abstractions for PWS, sewage effluent from Ambleside. # Predominantly impervious, Borrowdale Volcanics in north and Silurian slate in south. Boulder Clay along river valleys. Mainly grassland, very wooded in lower reaches.	1987	2217	104	1745	99	13.67	86.4	28/03	1.26	28/05	29.3	9.16	2.38
	1988	2560	120	2166	123	16.92	73.6	02/01	0.64	22/06	35.7	14.91	1.13
	1989	2117	99	1630	93	12.76	90.7	10/03	0.55	25/06	32.1	7.60	0.62
	1990	2436	114	1813	103	14.20	65.0	26/12	1.00	10/08	36.9	8.04	1.75
073011 **Mint at Mint Bridge** C.A: 65.8 km²	**70..85**	**1576**		**1111**		**2.32**	**72.1**	**21/12 1985**	**0.05**	**26/08 1984**	**5.7**	**1.21**	**0.17**
M.A: NRA-NW Level: 50m Local Number: 7380404													
F.A.R: N B.F.I: .38 Sensitivity: 15.9	1986	1772	112	1336	120	2.79					7.0	1.49	0.23
Comment: Flat V Crump profile weir, 0.837m weir full. Stable rating. Natural catchment, however, flow slightly affected by Meal Bank mill sluice operation from 21/7/67 to 3/1/69 and periodic releases from sludge disposal works. # Steep, very wet catchment. Predominantly impervious Silurian slate with bands of flags and shale, small patches of Carboniferous Limestone and basal conglomerate, patchy Boulder Clay cover in middle and lower reaches. Sheep grazing with peat moorland in extreme north.	1987	1742	111	1311	118	2.74	41.9	29/12	0.23	28/05	6.5	1.50	0.46
	1988	1816	115										
	1989	1464	93										
	1990	1842	117	1265	114	2.64	53.5	19/02	0.214	16/09	7.1	1.15	0.26
073013 **Rothay at Miller Bridge House** C.A: 64.0 km²													
M.A: NRA-NW Level: 41m Local Number: 7385022													
F.A.R: N B.F.I: .33 Sensitivity:	1986	2821		2494		5.06	97.5	22/03	0.20	19/07	12.0	2.65	0.30
Comment: VA station confined within stone walls 2.8m; flood berm on lhb. Initially a loose boulder control, but rating was unstable because of the mobile bed. Data quality poor. A wooden low flow control was installed 2/91. Gaugings taken 170m d/s or by wading. Natural catchment, contains Rydal Waterand Grasmere. # Steep wet catchment draining Silurian shales, ssts and mudsts, virtually drift-free. Immediately d/s of Ambleside.	1987	2354		2062		4.18	103.2	27/03	0.27	28/05	9.4	1.99	0.55
	1988	2729											
	1989	2353											
	1990	2725		2322		4.71	76.8	26/12	0.41	08/08	10.9	2.32	0.64
074001 **Duddon at Duddon Hall** C.A: 85.7 km²	**68-85**	**2174**		**1808**		**4.91**	**166.7**	**23/08 1985**	**0.13**	**02/09 1976**	**12.5**	**2.37**	**0.41**
M.A: NRA-NW Level: 15m Local Number: 7480102													
F.A.R: SP B.F.I: .28 Sensitivity: 14.5	1986	2558	118	2072	115	5.63	104.8	27/10	0.36	08/07	14.6	2.99	0.47
Comment: Compound broad-crested weir, 22.9m overall, centre crest 7m, contains all flows. Drowning improbable. High flows theoretically rated. Low flows gauged by wading. Extremely flashy runoff. Abstractions for Barrow PWS from Ulpha pumping station u/s. Variable compensation flow from Seathwaite Tarn. # Rises at Wrynose Pass, flows through sparsely populated agricultural land. Geology entirely impervious Ordovician Borrowdale Volcanics, andesitic lavas with small patches of Boulder Clay. Thin soils. Peat moss in north-west.	1987	2400	110	1902	105	5.17	164.8	26/03	0.51	25/05	12.9	2.74	0.72
	1988	2642	122	2161	120	5.85	118.0	09/01	0.33	28/06	13.6	3.64	0.43
	1989	2087	96	1601	89	4.35	135.6	09/03	0.22	25/06	10.6	1.88	0.32
	1990	2333	107										
074002 **Irt at Galesyke** C.A: 44.2 km²	**67-85**	**2821**		**2288**		**3.21**	**47.1d**	**02/10 1968**	**0.13**	**08/05 1974**	**7.1**	**2.17**	**0.41**
M.A: NRA-NW Level: 54m Local Number: 7483008													
F.A.R: SPI B.F.I: .46 Sensitivity: 14.6	1986	2854	101	2453	107	3.44	20.0	31/12	0.25	16/07	7.0	2.64	0.38
Comment: Natural channel with gabion control. Gabion modified in September 1968; unstable section accretes and control submerges. Fully contained. 2km downstream of Wast Water outlet which is important for PWS and major industrial purposes, greatly affecting low flows. # Entirely impervious Lower Palaeozoic rocks with Drift cover along river valley, heavy rainfall in mountains carried in short, steep rivers - rapid runoff. Sheep farming on rough pasture, with heath and moorland.	1987	2572	91	2358	103	3.31	20.0	27/03	0.44	15/12	7.1	2.40	0.76
	1988	2887	102	2579	113	3.60	15.4	02/01	0.24	21/06	7.2	3.19	0.30
	1989	2368	84	2134	93	2.99	19.1	09/03	0.17	25/06	7.0	2.21	0.26
	1990	2431	86										
074003 **Ehen at Ennerdale Weir** C.A: 44.2 km²	**73..85**	**2722**		**1695**		**2.38**	**48.9**	**24/10 1977**	**0.14**	**23/08 1976**	**6.3**	**0.91**	**0.38**
M.A: NRA-NW Level: 110m Local Number: 7484111													
F.A.R: SPI B.F.I: .31 Sensitivity: 9.7	1986	2851	105	2122	125	2.97	28.4	27/10	0.30	08/02	7.1	1.66	0.41
Comment: Compound Crump profile weir, from 1/8/73, replaced narrow flume with side weir regarded as a control for a rated section. Flow contained. Measures flood discharge and compensation water from Ennerdale Water 800m u/s. Compensation level - 0.157m. Ennerdale Water used for PWS for West Cumbria and industrial supply to Sellafield. # 100% impervious Skiddaw Slates in north-west, Borrowdale Volcanics in south-east with intrusions in the centre. Mostly rough sheep grazing, forestry on Drift cover along river valley.	1987	2409	89	1803	106	2.53	34.2	27/03	0.35	03/12	6.0	1.26	0.50
	1988	2763	102	2086	123	2.92	29.9	09/01	0.33	03/07	6.7	1.94	0.39
	1989	2372	87	1716	101	2.40	39.6	09/03	0.20	26/11	6.4	0.85	0.37
	1990	2515	92										
074005 **Ehen at Braystones** C.A: 125.5 km²	**74-85**	**1861**		**1285**		**5.11**	**115.9**	**30/10 1977**	**0.43**	**02/09 1976**	**12.3**	**2.70**	**0.77**
M.A: NRA-NW Level: 10m Local Number: 7484312													
F.A.R: SP B.F.I: .40 Sensitivity: 14.6	1986	2008	108	1507	117	6.00	80.2	27/10	0.98	18/07	13.8	4.05	1.10
Comment: Velocity-area station. Unstable rating - gravel bar low flow control; weed growth problems also. Bypassed in extreme floods. Low flows dominated by compensation from Ennerdale Water; major exports. # Upper catchment; in east: impervious Borrowdale Volcanics, in west: Skiddaw Slates, overlain in north-west by Carboniferous Limestone, Coal Measures and patches of Permo-Triassic sandstone. Drift covered. Some urban development in the lower catchment, middle reaches arable, remainder sheep pasture.	1987	1765	95	1326	103	5.28	77.9	18/10	0.94	24/06	13.1	2.91	1.16
	1988	1911	103	1391	108	5.52	63.6	09/01	0.51	03/07	11.8	3.75	0.84
	1989	1635	88	1109	86	4.41	74.3	30/08	0.71	01/08	10.8	2.17	0.79
	1990	1740	93	1326	103	5.28	72.3	02/10	1.27	03/05	12.1	2.95	1.43

	Period	Rainfall (mm)	% of pre1986	Runoff (mm)	% of pre1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
074006 **Calder at Calder Hall** C.A: 44.8 km²	**64..85**	**1858**		**1337**		**1.90**	**53.1d**	**10/09 1969**	**0.08**	**23/08 1976**	**4.2**	**1.13**	**0.29**
M.A: NRA-NW Level: 26m Local Number: 7483509													
F.A.R: G B.F.I: .41 Sensitivity: 15.5	1986	1954	105	1368	102	1.94	28.4	27/10	0.31	17/07	4.0	1.27	0.39
Comment: Flat V weir with 1:20 cross-slope, Crump profile, measures low and medium flows. At very high flows could drown out. All flows contained within bank. Flashy response. From 1/1/80 low flow augmentation by pumping from the St Bees Sandstone. # Upper catchment impervious Skiddaw Slates and Borrowdale Volcanics; rough grazing. Lower catchment Triassic sandstone; meadow and permanent pasture. Mostly sheep farming, approx. 5% afforested.	1987	1717	92	1418	106	2.01	50.3	10/07	0.47	27/05	4.5	1.20	0.57
	1988	1836	99	1404	105	1.99	39.9	09/01	0.26	23/06	4.4	1.39	0.30
	1989	1491	80	1106	83	1.57	**87.6**	**30/08**	0.16	21/07	3.4	0.91	0.25
	1990	1601	86	1129	84	1.60	62.1	04/07	0.30	06/08	3.5	0.99	0.37
074007 **Esk at Cropple How** C.A: 70.2 km²	**76-85**	**2230**		**2020**		**4.50**	**145.0**	**02/01 1982**	**0.11**	**07/09 1976**	**10.9**	**2.35**	**0.33**
M.A: NRA-NW Level: 6m Local Number: 7482006													
F.A.R: B.F.I: .30 Sensitivity: 30.0	1986	2513	113	2159	107	4.81	137.5	24/12	0.36	01/03	12.2	2.68	0.50
Comment: Velocity-area station. Stone ford forms low/medium control approx. 50m downstream, insensitive at low flows. Waded gauging at low/medium flows, permanent cableway for high flows. # Impervious Ordovician andesitic lavas and tuffs with massive granitic intrusion, virtually Drift free. Mountainous catchment supporting rough pasture and moorland for sheep grazing, grassland in valley. Rural.	1987	2342	105	2026	100	4.51	120.1	10/07	0.58	28/05	11.1	2.42	0.74
	1988	2559	115	2221	110	4.93	133.6	22/12	0.30	29/06	11.3	3.11	0.42
	1989	2076	93	1744	86	3.88	135.3	13/08	0.18	25/07	9.5	2.00	0.30
	1990	2275	102										
074008 **Duddon at Ulpha** C.A: 47.9 km²	**77..85**			**2088**		**3.17**	**121.7**	**30/10 1977**	**0.14**	**15/07 1984**	**8.1**	**1.45**	**0.25**
M.A: NRA-NW Level: 76m Local Number: 7480101													
F.A.R: SP B.F.I: .25 Sensitivity: 6.9	1986			2259	108	3.43	66.9	24/12	0.22	08/07	9.0	1.66	0.30
Comment: Non-standard compound broad-crested weir, three different crest levels of varying widths, narrowest at 0.31m, second at 0.54m and widest at 0.745m at obtuse angle to channel. No cableway, waded current metering 100m downstream of weir. Contains all flows. Major abstraction 10m upstream for Barrow PWS. Compensation flow from Seathwaite Tarn 8km upstream. # Impervious Ordovician andesitic lavas, virtually Drift free. Steeply sloping, thin soils, supporting sheep pasture.	1987			2029	97	3.08	95.9	26/03	0.28	25/05	8.2	1.59	0.39
	1988												
	1989												
	1990												
075001 **St Johns Beck at Thirlmere Reservoir** C.A: 42.1 km²	**35..85**	**2657**		**658**		**0.88**	**70.1**	**21/12 1985**	**0.07**	**30/10 1975**	**2.1**	**0.19**	**0.16**
M.A: NRA-NW Level: 199m Local Number: 7580605													
F.A.R: SP B.F.I: .35 Sensitivity: 12.9	1986	2935	110	835	127	1.12	30.8	25/11	0.13	26/06	3.3	0.20	0.15
Comment: Rectangular thin-plate weir replaced by compound Crump profile weir, approx. 1km d/s of Thirlmere Reservoir, on 1/1/73. Measures compensation and flood spill discharges from Thirlmere Reservoir. Modular limit approx. 0.75m. Linked to the RCS. Naturalised monthly flows from 1964 to 1966. # Catchment composed entirely of impervious Ordovician Borrowdale Volcanics, runoff from these into the reservoir is rapid. Rock outcrop, rough pasture with heather. Sheep grazing, some forestry.	1987	2457	92	376	57	0.50	14.4	29/12	0.08	03/02	0.3	0.18	0.15
	1988	2789	105	660	100	0.88	16.7	09/01	0.14	22/05	2.7	0.20	0.15
	1989	2471	93	680	103	0.91	62.0	09/03	0.14	05/05	2.1	0.22	0.15
	1990	3008	113	486	74	0.65	21.1	19/02	0.20	03/01	0.7	0.29	0.25
075002 **Derwent at Camerton** C.A: 663.0 km²	**60-85**	*1740*		**1205**		**25.34**	**264.7**	**01/10 1968**	**1.15**	**06/09 1976**	**56.9**	**16.32**	**3.31**
M.A: NRA-NW Level: 17m Local Number: 7583015													
F.A.R: SP B.F.I: .48 Sensitivity: 7.1	1986	2079	119										
Comment: Velocity-area station with permanent cableway. Full range calibration, all flows contained. Opened in 1960, reliable record since 1961. Regulated flow from Crummock Water. Controlled releases from Thirlmere. Naturalised monthly flows from 1962 to 1967. # Source in the central Lakes massif is the highest rainfall location in the UK. Upper third is moorland draining Lower Palaeozoic rocks. Drift covered valley floors support grazing and some arable farming. Contains Keswick and Cockermouth.	1987	1820	105	1266	105	26.63	215.5	27/03	4.22	01/06	51.3	17.47	5.39
	1988	1974	113	1405	117	29.46	213.0	06/01	1.98	24/06	64.0	23.84	2.53
	1989	1729	99	1173	97	24.67	197.8	09/03	1.66	27/07	60.4	15.47	2.19
	1990	2093	120	1324	110	27.84	162.4	22/01	2.91	07/08	79.3	14.64	3.87
075003 **Derwent at Ouse Bridge** C.A: 363.0 km²	**68-85**	**1951**		**1376**		**15.84**	**110.6**	**22/12 1985**	**0.30**	**26/07 1984**	**37.6**	**9.84**	**1.76**
M.A: NRA-NW Level: 68m Local Number: 7581110													
F.A.R: SP B.F.I: .50 Sensitivity: 12.3	1986	2357	121	1829	133	21.05	102.1	26/11	1.83	18/07	53.3	13.21	2.43
Comment: Velocity-area station with permanent cableway immediately downstream of Bassenthwaite Lake. Low flow control approx. 120m downstream is artificial pipe at the upstream end of an island. Island becomes control at higher flows. Substantial exports. Rarely overtopped. Derwent Water and Thirlmere Reservoir moderate the effect of flood discharges in the lower Derwent. # Catchment entirely on impervious Lower Palaeozoic rocks supporting mainly rough pasture and moorland. Drift confined to valley floor. Entirely rural.	1987	2020	104	1531	111	17.62	103.7	28/03	3.28	01/06	34.1	11.63	4.01
	1988	2269	116	1790	130	20.55	89.4	03/01	1.59	24/06	45.4	16.66	2.04
	1989	1986	102	1500	109	17.26	106.5	10/03	1.17	27/07	42.6	10.60	1.78
	1990	2454	126	1734	126	19.96	87.4	26/12	2.26	08/08	54.8	10.66	3.14
075004 **Cocker at Southwaite Bridge** C.A: 116.6 km²	**67-85**	**1946**		**1347**		**4.98**	**93.2**	**31/10 1977**	**0.28**	**07/09 1976**	**11.7**	**2.89**	**0.67**
M.A: NRA-NW Level: 60m Local Number: 7581613													
F.A.R: SP B.F.I: .43 Sensitivity: 20.1	1986	2355	121	1665	124	6.16	41.6	25/11	0.47	02/03	15.5	3.75	0.61
Comment: Velocity-area station with cableway. Until January 1974 control was weir 137m d/s, new control is pipeline protected by boulders. May be insensitive at low flows. Full-range. Suffers from weed growth and minor bed movements. Major exports. Low flows - compensation from Crummock Water. # Lower Palaeozoic rocks, granitic intrusions; moorland. Mainly grazing, some arable on broad swathe of Drift in river valley. River sometimes responsive despite Crummock Water, Buttermere and Loweswater in catchment.	1987	2054	106	1404	104	5.19	73.6	27/03	0.65	28/05	11.2	3.04	0.94
	1988	2222	114	1626	121	5.99	33.8	09/01	**0.25**	**06/07**	13.2	4.73	0.41
	1989	1993	102	1372	102	5.07	78.0	09/03	0.63	25/06	12.1	3.04	0.67
	1990	2283	117	1491	111	5.51	48.1	06/10	0.71	12/08	14.9	2.66	0.79
075005 **Derwent at Portinscale** C.A: 235.0 km²	**72-85**	**2163**		**1561**		**11.63**	**180.3**	**26/11 1979**	**0.12**	**10/06 1980**	**27.1**	**6.82**	**1.08**
M.A: NRA-NW Level: 73m Local Number: 7581007													
F.A.R: S B.F.I: .41 Sensitivity: 5.9	1986	2575	119	1877	120	13.99	148.6	25/11	0.92	17/07	36.4	8.08	1.14
Comment: Velocity-area station with permanent cableway. No stable bed control - shifting ratings, particularly at the low end. Medium and high flow ratings more stable. Station bypassed on right bank in extreme floods. Affected by controlled releases from Thirlmere Reservoir immediately upstream. # Mainly Borrowdale Volcanic series with Skiddaw Slates in the north and igneous intrusions east of Keswick. Extensively Drift covered except the extreme southern upland area. Grasslands along river valley, remainder heather and moorland.	1987	2184	101	1471	94	10.96	137.1	27/03	1.38	28/05	22.8	6.68	1.81
	1988	2501	116	1663	107	12.36	89.4	02/01	0.84	24/06	28.0	9.52	1.06
	1989	2192	101	1460	94	10.88	169.5	09/03	0.88	25/07	27.8	5.82	1.07
	1990	2680	124	1690	108	12.59	117.2	06/10	1.13	14/08	33.3	6.05	1.45
075009 **Greta at Low Briery** C.A: 145.6 km²	**71-85**	**1896**		**1075**		**4.96**	**205.8**	**21/12 1985**	**0.36**	**27/08 1983**	**12.4**	**2.47**	**0.58**
M.A: NRA-NW Level: 100m Local Number: 7580806													
F.A.R: S B.F.I: .35 Sensitivity: 10.0	1986	2277	120	1420	132	6.56	142.0	04/12	0.63	17/07	17.0	2.90	0.77
Comment: Velocity-area station with a berm acting as a control where the channel divides and the gradient steepens. Permanent cableway. All flows contained. Thirlmere Reservoir regulates catchment. # Entirely rural catchment with sheep farming predominating on the rough pasture. Geology is impervious Ordovician Skiddaw Slates, Borrowdale Volcanics and some igneous intrusions, Boulder Clay covered below 200m. Moorland on high ground.	1987	1921	101	1134	105	5.24	126.7	18/10	0.85	27/05	11.3	2.77	1.09
	1988	2198	116	1334	124	6.14	75.6	01/02	0.58	22/06	14.2	3.57	0.72
	1989	1924	101	1137	106	5.25	139.9	09/03	0.43	17/07	13.3	2.33	0.49
	1990	2405	127	1353	126	6.24	98.2	04/02	0.70	14/08	16.9	2.72	0.93
075017 **Ellen at Bullgill** C.A: 96.0 km²	82-85	*1115*		818		2.49	73.9	21/09 1985	0.15	26/07 1984	5.3	1.49	0.28
M.A: NRA-NW Level: 27m Local Number: 7584016													
F.A.R: B.F.I: .49 Sensitivity: 16.8	1986	1233	111	849	104	2.58	60.9	03/12	0.33	04/10	5.7	1.47	0.37
Comment: Flat V weir to measure low flows up to 0.359m, velocity-area station for medium and high flows to bankfull. Full-range with stable rating. Permanent cableway. Suffers from slight accretion. Abstractions in headwaters. Small discharges of sewage and industrial effluent. # Steep headwaters drain Uldale Fells and flow westward. Lower reaches follow the east-west trend of the Coal Measures in broad, flat valleys, Boulder Clay covered below 200m. Lower Palaeozoic hills to the south.	1987	1198	107	835	102	2.54	46.3	28/12	0.41	28/05	5.0	1.64	0.51
	1988	1155	104	777	95	2.36	70.3	06/01	0.27	23/06	4.8	1.61	0.31
	1989	948	85	562	69	1.71	41.0	09/03	0.17	27/07	4.2	0.76	0.21
	1990	1197	107	707	86	2.15	37.2	19/02	0.20	02/08	5.6	0.95	0.23

		Period	Rainfall (mm)	% of pre1986	Runoff (mm)	% of pre1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
076001	**Haweswater Beck at Burnbanks** C.A: 33.0 km²	**53..85**	**2462**		**617**		**0.65**	**27.1**	**09/03 1982**	**0.09**	**23/10 1984**	**0.9**	**0.30**	**0.21**
M.A: NRA-NW	Level: 189m Local Number: 76811103													
F.A.R: SP	B.F.I: .47 Sensitivity: 22.9	1986			504	82	0.53	20.5	22/01	0.18	09/01	0.3	0.26	0.21
Comment: Velocity-area station 1951-61; compound thin-plate, 4 stage weir to 1/4/78; Crump profile weir thereafter. 1km downstream of Haweswater Reservoir which imports water from Lowther tributaries. Measures compensation only. Major exports to Shap aqueduct for PWS. Some monthly naturalised data available. # High relief, very wet catchment draining volcanic rocks of Silurain age. Extensively peat covered in the west; Boulder Clay and sands and gravels in the valley. Entirely moorland, heathland and rough pasture.		1987			272	44	0.28	4.6	04/01	0.20	25/05	0.3	0.26	0.24
		1988			481	78	0.50	13.7	02/02	0.22	19/12	0.3	0.26	0.24
		1989			452	73	0.47	**30.8**	**09/03**	0.20	09/10	0.4	0.25	0.22
		1990			711	115	0.74	**31.4**	**04/02**	0.24	26/03	0.5	0.34	0.28
076002	**Eden at Warwick Bridge** C.A: 1366.7 km²	**66..85**	**1285**		**780**		**33.79**	**689.7d**	**23/03 1968**	**3.35**	**29/08 1976**	**72.2**	**21.38**	**6.61**
M.A: NRA-NW	Level: 18m Local Number: 7682507													
F.A.R: SP	B.F.I: .49 Sensitivity: 8.0	1986	1433	112	948	122	41.07	376.4	05/12	4.61	04/10	96.3	25.84	5.69
Comment: Velocity-area station with cableway. Levels over 3.8m inundate left bank floodplain and bypass station. Weed growth considerable, in summer months (sometimes up until Dec.), short term ratings needed. Very responsive. Influenced by major abstractions from Haweswater and Wet Sleddale. # Horseshoe shaped outcrop of Carboniferous Limestone forms south and east watersheds in Pennines; Lakes drain Silurian volcanics. Main Vale of Eden is Boulder Clay covered Permo-Triassic sandstone. Land use variable, moorland to arable.		1987	1356	106	876	112	37.96	477.7	18/10	8.17	27/05	76.6	24.44	10.71
		1988	1384	108	904	116	39.09	386.1	01/02	6.16	30/06	78.3	27.04	7.33
		1989	1146	89	632	81	27.39	397.5	10/03	**2.94**	**25/07**	66.8	12.38	3.70
		1990	1507	117	805	103	34.88	507.8	04/02	3.97	14/08	99.4	13.94	5.03
076003	**Eamont at Udford** C.A: 396.2 km²	**61..85**	**1809**		**1181**		**14.84**	**299.9**	**23/03 1968**	**0.45**	**25/08 1984**	**31.6**	**9.87**	**2.48**
M.A: NRA-NW	Level: 91m Local Number: 7682006													
F.A.R: S	B.F.I: .53 Sensitivity:	1986	2005	111	1341	114	16.85	168.9	05/12	1.87	26/07	40.6	10.09	2.10
Comment: Velocity-area station. Permanent cableway 120m upstream of recorder, wading downstream for low flows. All flows contained. Short term ratings derived because of weed growth. Artificially influenced by Ullswater, Haweswater and Wet Sleddale. Naturalised monthly flows 1962-1965. # 65% drains Ordovician volcanics of peat moorland headwaters; broad band of Carboniferous Limestone in middle reaches; Coal Measures and Permo-Triassic sandstone nearer station. Extensive Boulder Clay in valleys and lower reaches. Mostly grazing.		1987	1783	99	1096	93	13.77	195.9	18/10	2.47	27/05	26.7	8.46	3.53
		1988	1984	110	1373	116	17.20	149.3	01/02	1.74	03/07	36.1	12.65	2.41
		1989	1772	98	1125	95	14.13	220.5	09/03	1.37	25/07	33.3	6.69	1.59
		1990	2190	121	1327	112	16.68	215.3	04/02	1.65	14/08	47.9	6.98	2.53
076004	**Lowther at Eamont Bridge** C.A: 158.5 km²	**62..85**	**1818**		**670**		**3.37**	**232.2**	**23/03 1968**	**0.36**	**27/08 1976**	**7.4**	**1.66**	**0.64**
M.A: NRA-NW	Level: 113m Local Number: 7681104													
F.A.R: S	B.F.I: .41 Sensitivity: 11.6	1986	2005	110	737	110	3.70	85.5	04/12	0.63	17/07	8.8	1.42	0.68
Comment: Velocity-area station with permanent cableway. All flows contained. Affected by seasonal weed growth. Strongly influenced by Haweswater and Wet Sleddale; 60% of catchment controlled. Monthly naturalised flows from October 1962 to September 1965. # 50% drains Ordovician volcanics of the peat moorland headwaters; broad band of Carboniferous Limestone in middle reaches, Coal Measures and Permo-Triassic sandstone lower down. Extensive Boulder Clay in valleys and lower third. Mostly grazing.		1987	1836	101	549	82	2.76	95.4	18/10	0.73	26/05	4.9	1.43	0.86
		1988	1996	110	737	110	3.69	82.0	01/02	0.63	24/06	8.1	1.69	0.73
		1989	1811	100	685	102	3.44	139.2	09/03	0.47	04/10	8.5	1.08	0.52
		1990	2265	125	913	136	4.59	141.5	04/02	0.64	11/08	12.2	1.30	0.68
076005	**Eden at Temple Sowerby** C.A: 616.4 km²	**64-85**	**1156**		**726**		**14.19**	**346.3**	**23/03 1968**	**1.00**	**26/07 1984**	**31.9**	**7.64**	**1.99**
M.A: NRA-NW	Level: 92m Local Number: 7680502													
F.A.R:	B.F.I: .37 Sensitivity: 8.9	1986	1283	111	823	113	16.08	241.8	05/12	1.55	27/07	42.8	8.22	1.69
Comment: Velocity-area station with cableway. Very badly affected by weed growth in summer months, hence numerous rating changes. Unstable gravel bed. Minor floods contained. Above 3.3m inundates wide floodplain on left bank. Floods cause considerable scour and erosion. Sewage discharge downstream of Appleby. # Rural catchment except for Appleby. Boulder Clay covered Permo-Triassic sandstone in main valley supports arable farming; headwaters drain Carboniferous Limestone with rough grazing, moorland on highest ground.		1987	1231	106	794	109	15.52	271.0	18/10	2.46	28/05	33.6	8.00	3.21
		1988	1207	104	761	105	14.83	230.5	28/07	1.56	24/06	30.6	8.02	1.87
		1989	967	84	575	79	11.24	192.7	10/11	**0.96**	**08/08**	26.7	3.60	1.16
		1990	1323	114	799	110	15.61	307.2	20/02	1.17	16/09	41.5	5.10	1.36
076007	**Eden at Sheepmount** C.A: 2286.5 km²	**67..85**	**1172**		**674**		**48.89**	**1357.0**	**24/03 1968**	**5.47**	**07/09 1976**	**103.1**	**30.59**	**9.52**
M.A: NRA-NW	Level: 7m Local Number: 7685512													
F.A.R: SP	B.F.I: .50 Sensitivity: 3.5	1986	1330	113	811	120	58.79	449.9	05/12	10.13	21/07	137.3	36.46	11.27
Comment: Velocity-area station. Permanent cableway. Full-range. Most floods contained in immediate channel. Pre-1970 (when floodbanks constructed) bypassed via Caldew floodplain. Highly influenced by Ullswater, Haweswater and Wet Sleddale especially at low flows. # Rural except for Carlisle, Penrith and Appleby. Headwaters in Carboniferous Limestone of Pennines to east, impervious Lower Palaeozoics of Lake District massif to west; moorland. Extensive Boulder Clay covered Permo-Triassic sandstone in Vale of Eden. Arable and grazing.		1987	1294	110	803	119	58.23	723.3	27/03	13.56	27/05	113.5	36.28	16.70
		1988	1286	110	793	118	57.33	505.8	01/02	10.30	24/06	115.4	40.82	11.89
		1989	1031	88	593	88	43.00	468.5	10/03	8.13	25/07	100.2	20.46	9.00
		1990	1380	118	790	117	57.31	705.4	04/02	9.57	14/08	145.6	25.09	10.61
076008	**Irthing at Greenholme** C.A: 334.6 km²	**67..85**	**1029**		**646**		**6.85**	**353.3**	**03/01 1982**	**0.61**	**07/09 1976**	**16.5**	**3.28**	**0.96**
M.A: NRA-NW	Level: 18m Local Number: 7683308													
F.A.R: SP	B.F.I: .31 Sensitivity: 15.0	1986	1234	120	787	122	8.35	194.9	25/11	1.09	02/07	20.9	4.12	1.20
Comment: Velocity-area station. Permanent cableway. Before 1/9/75 gabion control effective over most of flow range. Downstream gravel abstractions caused scour, rating changes frequent. Now informal Flat V, insensitive at low flows. Moderately affected by Castle Carrock Reservoir. # Tributaries rising in the Pennines are short, steep and flashy through heather and moorland cover. Solid geology dominated by Carboniferous Limestone - outcrops on steep slopes. Extensive hill peat, Boulder Clay and glacial sands and gravels. Land use: moorland to arable.		1987	1267	123	928	144	9.84	225.9	27/03	1.39	27/05	25.6	4.56	1.86
		1988	1155	112	753	117	7.97	185.2	28/07	1.03	24/06	17.2	4.80	1.30
		1989	845	82	468	72	4.97	112.5	04/02	0.66	24/07	12.3	2.42	0.76
		1990	1187	115	743	115	7.88	324.7	04/02	0.74	05/08	19.1	2.76	0.94
076009	**Caldew at Holm Hill** C.A: 147.2 km²	**68..85**	**1400**		**954**		**4.45**	**204.9**	**03/11 1984**	**0.54**	**08/07 1975**	**10.3**	**2.62**	**0.80**
M.A: NRA-NW	Level: 60m Local Number: 7685011													
F.A.R: N	B.F.I: .49 Sensitivity: 10.2	1986	1605	115	1174	123	5.48	75.5	22/03	0.83	22/07	12.8	2.97	1.12
Comment: Natural channel with low flow gabion control. Rating changes due to gabion suffering damage at high velocities. Full range of flows contained. Permanent cableway. Natural catchment. # Rises on impervious Skiddaw Slates and flows northward over Carboniferous Limestone and Coal Measures. Hill peat; Boulder Clay extensive below 200m. Rural catchment, heath and moorland in headwaters, arable farming confined to lower reaches.		1987	1509	108	1114	117	5.20	119.5	27/03	1.16	28/05	10.7	3.39	1.52
		1988	1516	108	1011	106	4.71	90.8	06/01	0.55	24/06	9.5	3.20	0.65
		1989	1247	89	850	89	3.97	59.6	13/01	0.57	09/06	9.0	2.30	0.65
		1990	1700	121	1126	118	5.25	72.8	28/12	0.78	14/08	13.9	2.49	0.94
076010	**Petteril at Harraby Green** C.A: 160.0 km²	**70..85**	**895**		**396**		**2.01**	**47.0**	**03/11 1984**	**0.18**	**16/08 1984**	**5.0**	**1.02**	**0.29**
M.A: NRA-NW	Level: 20m Local Number: 7684009													
F.A.R: N	B.F.I: .46 Sensitivity: 25.1	1986	1009	113	451	114	2.29	25.9	22/01	0.32	17/10	5.7	1.16	0.36
Comment: Velocity-area station with sharp-edged rectangular weir; downstream concrete apron. Weir nearly full width of channel. Rarely overtopped. Permanent cableway. Weed growth affects rating (severely in 1973 and '74). Natural catchment. # Long, thin catchment rising in moorland west of Penrith, flowing north to Carlisle. Carboniferous Limestone in headwaters; remainder: Upper Carboniferous and Permo-Triassic sandstones covered with Boulder Clay and valley gravel.		1987	1026	115	491	124	2.49	**47.2**	**27/03**	0.43	08/07	5.1	1.51	0.51
		1988	997	111	459	116	2.32	38.9	01/02	0.32	24/06	5.0	1.32	0.38
		1989	792	88										
		1990	1079	121	447	113	2.27	26.4	28/12	0.22	11/09	6.0	0.77	0.24
076011	**Coal Burn at Coalburn** C.A: 1.5 km²	**67..85**	**1246**		**946**		**0.05**	**5.9**	**29/08 1975**	**0.00**	**30/12 1984**	**0.1**	**0.02**	
M.A: IH	Level: 270m Local Number: 118													
F.A.R: N	B.F.I: .19 Sensitivity:	1986	1476	118	1131	120	0.05	2.0	25/11	0.00	01/07	0.2	0.02	>0.00
Comment: Compound Crump profile weir; full-range. Theoretically rated. Jointly managed by IH, NWWA and the Forestry Commission. Small experimental catchment to show the affects of afforestation. Natural catchment. # Tributary of R. Irthing. Steep catchment at 300m altitude was entirely moorland, now afforested, on Lower Carboniferous strata with Boulder Clay cover and some blanket peat.		1987	1397	112	1157	122	0.06	2.3	27/12	0.00	08/05	0.2	0.02	>0.00
		1988	1316	106	1003	106	0.05	1.2	21/07	0.00	17/06	0.1	0.02	>0.00
		1989	1049	84	708	75	0.03	1.5	04/02	0.00	27/05	0.1	0.01	
		1990	1587	127										

	Period	Rainfall (mm)	% of pre1986	Runoff (mm)	% of pre1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
076014 **Eden at Kirkby Stephen** C.A: 69.4 km²	**71..85**	**1348**		**1111**		**2.44**	**196.7**	**02/01 1982**	**0.04**	**26/08 1984**	**6.2**	**0.95**	**0.14**
M.A: NRA-NW Level: 158m Local Number: 7680101													
F.A.R: N B.F.I: .24 Sensitivity: 26.1	1986	1684	125	1533	138	3.37	122.7	24/05	0.08	27/07	9.4	1.22	0.12
Comment: Non-standard compound broad-crested weir, built to stabilise the bed and act as a low flow control. Insensitive at low flows. Cableway measures full-range. Natural catchment, the highest on the Eden. # High relief catchment draining Carboniferous Limestone which forms most of the watershed. Middle reaches floored by Permian sandstone. Hill peat and moorland, variable Boulder Clay cover.	1987	1480	110	1198	108	2.64	82.6	27/03	0.15	27/05	6.2	1.01	0.30
	1988	1526	113	1192	107	2.62	69.7	22/12	0.15	24/06	6.1	1.36	0.20
	1989	1303	97										
	1990	1602	119	1377	124	3.03	158.1	19/02	0.19	04/08	7.2	1.00	0.22
076015 **Eamont at Pooley Bridge** C.A: 145.0 km²	**70-85**	**2179**		**1680**		**7.72**	**72.1**	**21/12 1985**	**0.36**	**07/09 1976**	**17.6**	**4.80**	**0.88**
M.A: NRA-NW Level: 144m Local Number: 7681605													
F.A.R: SP B.F.I: .55 Sensitivity: 11.8	1986	2483	114	2090	124	9.61	50.0	25/11	0.65	27/07	21.3	6.48	0.97
Comment: Compound Crump profile weir 29.3m wide with low crest 9.1m wide. Crest tapping installed as drowning was expected, but rarely drowns, crest tapping not used. Just downstream of Ullswater - variable compensation releases from here and Haweswater. # Lower Palaeozoic shales and grits forming core of the Lake District dome where sheep grazing on rough pasture predominates. Some arable in lower reaches, moorland on high ground. Some Boulder Clay cover.	1987	2101	96	1664	99	7.65	59.3	27/03	1.27	27/05	15.4	4.70	1.90
	1988	2443	112	2125	126	9.75	46.3	02/01	0.76	03/07	20.0	7.92	1.10
	1989	2195	101	1649	98	7.58	**72.4**	**09/03**	0.44	20/07	19.0	3.80	0.72
	1990	2615	120	1956	116	8.99	57.9	04/02	0.99	14/08	25.1	4.41	1.82
077001 **Esk at Netherby** C.A: 841.7 km²	**63..85**	**1417**		**910**		**24.29**	**1545.0**	**09/10 1967**	**1.85**	**25/07 1984**	**57.4**	**12.75**	**3.00**
M.A: NRA-NW Level: 14m Local Number: 7780201													
F.A.R: N B.F.I: .37 Sensitivity: 7.3	1986	1735	122	1161	128	30.97	480.6	09/11	3.74	24/07	76.7	19.83	4.20
Comment: Velocity-area station. Permanent cableway. Full-range. Regrading of natural control after high flows and gravel abstractions downstream affect rating. High flow gauging difficult because flashy. Black Esk Reservoir 47km u/s. Natural catchment. # NWWA jurisdiction extends 9km u/s to Scottish border, otherwise Solway RPB area. Rural. Silurian rocks with igneous intrusions in north. Carboniferous Limestone in centre and Permo-Triassic succession in south. Widely blanketed by Boulder Clay. Heavily forested in north, arable in south.	1987	1495	106	941	103	25.12	514.6	27/12	2.99	27/05	64.8	13.82	4.50
	1988	1571	111	1158	127	30.83	541.0	18/04	4.17	24/06	67.6	20.37	4.96
	1989	1307	92	944	104	25.20	644.7	09/03	2.76	22/07	57.9	13.79	3.11
	1990	1662	117	1319	145	35.19	694.9	06/10	4.16	15/09	87.9	15.90	4.89
077005 **Lyne at Cliff Bridge** C.A: 191.0 km²	77..85			843		5.11	292.8	30/10 1977	0.27	26/07 1984	13.3	2.24	0.38
M.A: NRA-NW Level: 12m Local Number: 7780302													
F.A.R: N B.F.I: .26 Sensitivity: 13.3	1986	1280		968	115	5.86	138.4	24/05	0.52	12/07	16.7	2.62	0.57
Comment: Flat V weir with a cableway 30m upstream. Subject to severe accretion from gravel shoals which disturb rating and cause weir to drown early. Regular maintenance necessary. # Moderate relief catchment draining the Bewcastle fells. Carboniferous Lst solid geology is covered by peat on the moorland and boulder clay on the lower slopes. Entirely rural.	1987	1326		1095	130	6.63	167.6	27/12	0.54	27/05	17.3	2.48	0.79
	1988	1268		976	116	5.90	131.0	28/07	0.46	24/06	14.3	3.43	0.64
	1989	915											
	1990	1259		918	109	5.56	140.0	24/02	0.38	03/08	16.2	1.65	0.47

Summary of Archived Data – 1

Gauged daily flows, monthly peaks and monthly rainfall

Stn. number	Gauged daily flows, monthly peaks and rainfall			
068001	30s	——eAB	40s	AABCBBABBB
	50s	BAAAAAAAAA	60s	AAAAAAAEAE
	70s	AAAAAEAAA†	80s	EAAAAAAAAA
	90s	AA		
068002	40s	——e	50s	AAAAAAAAAA
	60s	AAAAAAAEAA	70s	AAAAAAE†††
	80s	††—††††	90s	††
068003	40s	——e	50s	AAAAAAAAAA
	60s	AAAAAAAEAA	70s	AAAAAE††††
	80s	†DAAAAAAAA	90s	AA
068004	50s	------eAA	60s	AAAAADADAA
	70s	AAAAAEAA††	80s	†AAAAAAAEE
	90s	AA		
068005	50s	—eAAAAAA	60s	AAAABAAEAA
	70s	AAAAAEEEAA	80s	AAAAAAAEAA
	90s	AA		
068006	50s	--eAAAAAA	60s	AAAAAAAEEA
	70s	AAAAAEE†††	80s	†EEAA††††
	90s	††		
068007	60s	-eBAAAAAA	70s	AAAAAEAAEA
	80s	AAEEAAAAAA	90s	E†
068011	70s	--††AAAAE	80s	†EE†----†
	90s	††		
068015	80s	·aaaaaAAAA	90s	E†
068020	80s	·AAAAAAADD	90s	EE
069001	30s	---ebabBB	40s	BBBBBBBBBB
	50s	AAAAAAAABA	60s	BAAAAAABEA
	70s	AAABABAAA†	80s	††††
069002	40s	-------e	50s	AAAAAAAAAA
	60s	AAAAAAAEAA	70s	AAEEA†AAAA
	80s	AAAAAAAAAA	90s	AE
069003	30s	------eE†	40s	†††††††††E
	50s	AAAAAAAAAA	60s	AAAAAAAEAA
	70s	AAAEE†AEAE	80s	AAAAAAAAAA
	90s	AE		
069004	40s	-----fBBBB	50s	BBBBBBBBAA
	60s	AAAAAAAAE†	70s	BBCCCCCCCC
	80s	CC††		
069005	50s	----eAEAAA	60s	AAAAAAAEAA
	70s	AAAEAAEEEA	80s	EAAE††
069006	50s	-----eAAAA	60s	AAAAAAAAAA
	70s	DAAEAEAAAA	80s	AAAAAAAAAA
	90s	AA		
069007	70s	·††††††††	80s	†AAAAAAAEA
	90s	AA		
069008	80s	††††eaE††F	90s	A†
069012	80s	----eAAAA	90s	AA
069013	80s	--e-eeAAAE	90s	EE
069015	70s	------AEE	80s	AAAAAAAAAA
	90s	AA		
069017	70s	-------AA†	80s	†AAAAAAAAA
	90s	AE		
069020	70s	------AAAA	80s	AAAAAAAAAA
	90s	AE		
069023	70s	--------EA	80s	†AAAAAaaaa
	90s	aa		
069024	80s	†AAAAAaaaa	90s	ea
069027	70s	--------D†	80s	†AAAAAAAAA
	90s	EE		
069030	70s	------e†DA	80s	AAAAAAAAAA
	90s	AA		
069031	80s	·aaeeeAAAE	90s	††
069032	70s	---------A	80s	AAAAAAea-a
	90s	aa		
069033	50s	----eaAAee	60s	e---------
	70s	----ae		
069035	70s	--------AEA	80s	†AAADAa†--
	90s	aA		
069037	80s	-----†CCFC	90s	††
069039	40s	——e	50s	EAAEEDAAAe
	60s	------	70s	---aea
069041	80s	·aaaacaaaa	90s	a
070001	50s	·eBCBBBABA	60s	AAABCBAABB
	70s	FBAE††††††	80s	††††
070002	80s	BAABAAAAAE	90s	EA
070004	70s	-----AAAA	80s	AAAAAAAAAA
	90s	EA		
071001	60s	fCCCbAAAAA	70s	BCBBBAAAAA
	80s	AAAAAAAAAA	90s	AA
071002	30s	——ee–	40s	———
	50s	———	60s	—eaAAAAA
	70s	AAAbE†fBBB	80s	B†††
071003	50s	——eAA	60s	AAAAAAAAAA
	70s	AAAaE†·†††	80s	—††††
	90s	††		
071004	60s	--eBAAAAA	70s	AE††AEAAAB
	80s	AAAAAAAAAA	90s	AA
071005	60s	eAAAAAAAAA	70s	AABbE†·†††
	80s	-----††††	90s	††
071006	60s	-------FC	70s	CFCCAAFAAA
	80s	DAAAAAAAAE	90s	EA
071008	70s	------AE†	80s	†AAAAAAAAA
	90s	EE		
071009	80s	aaaaaaAAAE	90s	EA
071010	70s	·fccccfAA†	80s	†AAAAAA†AB
	90s	EA		
071011	60s	-----FFFC	70s	CCFF†††EAE
	80s	EAAAAAAAAB	90s	EA
071013	80s	eaeae-e--	90s	aa
071014	70s	------aaa	80s	·aaaaaeeca
	90s	eb		
072002	60s	--eAAAAAA	70s	AAABCCAAAE
	80s	AAAAAAAAAB	90s	AE
072004	50s	--------C	60s	cCCCCCCCBB
	70s	CCCCCCC†††	80s	·aaAAAAAAA
	90s	AA		
072005	60s	--------F	70s	CCCCCCFAA†
	80s	†AAAAADAAA	90s	AA
072007	80s	-----aAAAA	90s	EA
072008	60s	-------flE	70s	EABCCCAAAA
	80s	AAAAAAEEAA	90s	EA
072009	70s	†††††††††	80s	†AAAAAAAAA
	90s	EA		
072011	60s	-------fc	70s	f------EEA
	80s	†DAEEADAEE	90s	EB
072015	80s	-----eDECE	90s	AA
072016	80s	·aaaaaaEAA	90s	AA
073002	60s	---EAAAADA	70s	BBBCAAAAAA
	80s	AAAAAAAAAA	90s	EA
073003	80s	·aaaaaEA††	90s	††
073005	60s	--------EB	70s	BBABAACAAA
	80s	AAAAAAAAAA	90s	AA
073006	80s	-------aaa	90s	aa
073008	60s	---------E	70s	AAE†AAA††††
	80s	†AAAAAAAAA	90s	EA
073009	70s	††††††††††	80s	†AAAAAAAAA
	90s	EA		
073010	30s	---------C	40s	CCCCCCCCCC
	50s	CCCCBCCCCC	60s	CCCCcCCCCC
	70s	CBBBCCCAAA	80s	AAAAAAAAAA
	90s	AA		
073011	70s	FCCCCC†A††	80s	†AAAAEEA††
	90s	AA		
073013	80s	††††††AAEE	90s	AA
074001	60s	——EC	70s	CCBCCCBAAA
	80s	AAAAAAAAAA	90s	EA
074002	60s	——eBB	70s	AAAAABBADA
	80s	AAAAAAAAAA	90s	EA
074003	70s	—eEADAAA	80s	AAAAAAAAAA
	90s	EA		
074005	70s	--†BAAAAA	80s	AAAAAAAAAA
	90s	AA		
074006	60s	—fCCFCC	70s	CCF†BBBAAA
	80s	AABAAAAAAA	90s	AA
074007	70s	—-†AAAA	80s	AAAAAAAAAA
	90s	EA		
074008	70s	------ea-	80s	-babaaaa-
	90s	e		
075001	30s	·††††EAE††	40s	†††††EAAAA
	50s	AAAAAAAAAA	60s	AAABAAAAEE
	70s	E††AAAEAAA	80s	AAAAAAAAAA
	90s	AA		
075002	60s	fcBCBBBBBA	70s	AAAAAAAAAA
	80s	AAAAAAEAAA	90s	AA
075003	60s	-------eA	70s	BAABAABAAA
	80s	AAAAAAAAAA	90s	AA
075004	60s	------fBA	70s	BBABAACAAA
	80s	AAAAAAAAAA	90s	AA
075005	70s	--AAABCAAA	80s	AAAAAAAAAB
	90s	AA		
075006	60s	-------eA	70s	AAAAAAAAAA
	80s	a---††††	90s	††
075007	60s	-------e	70s	AAAAAAAAA†
	80s	-----††††	90s	††
075009	70s	·eAAABBAAA	80s	ABAAAAAAAA
	90s	AA		
075010	70s	--eAAAAA††	80s	-----††††
	90s	††		
075016	70s	------DDD	80s	AAABAAeaee
	90s	ea		
075017	80s	--aAAAAAAA	90s	AA
076001	50s	--†EABAE††	60s	EAABAAAAAA
	70s	E†††††E†EA	80s	AEAAAAaaaa
	90s	aa		
076002	60s	----††EBBA	70s	AABABBCAAE
	80s	ABAAAAAAAA	90s	AA
076003	60s	·eAAAAAAEA	70s	AAAAAAAAAA
	80s	ABBAAAAAAA	90s	AE
076004	60s	-eAAAADAA	70s	AEAEAAA†AA
	80s	†AAAAAAAAA	90s	AE
076005	60s	----eAABBB	70s	AAAABBBAAA
	80s	AAAAAAAAAA	90s	AA
076007	60s	------eAA	70s	AAAAAAAA††
	80s	†AAAAAAAAB	90s	AA
076008	60s	------eAA	70s	EAAAAEE†A†
	80s	†AAAAAAAAA	90s	AA
076009	60s	--------eE	70s	BAAAAAE†††
	80s	†BAAAAAAAA	90s	AA
076010	60s	---------†	70s	EAAAAAE†††
	80s	†AAAAAAAA†	90s	AA
076011	60s	-------AAA	70s	AAEEEEAAAA
	80s	AEEAADAAAA	90s	DD
076014	70s	-EAAAAAA††	80s	†AAAAAAAAE
	90s	AA		
076015	70s	EAABAABAAA	80s	AAAAADAAAA
	90s	AE		
077001	60s	---eDAEEAE	70s	EEEBAAAAA†
	80s	†AAAAAAAAA	90s	AA
077005	70s	-------a--	80s	---eaaAAAE
	90s	AA		

Summaries of Archived Data – 2

Naturalised daily and monthly flows

Stn. number	Naturalised daily, and monthly flows			
068001	60s	·FEEEEEFEF	70s	----E
068003	40s	--------F	50s	EEEEEEEEEE
	60s	EEEEF-----	70s	---FE
068004	60s	·FEEEEEEEF	70s	---FE
068005	60s	·FEEEEEFEF	70s	---FE
068006	60s	·FEEFFEFFF	70s	----E
069004	40s	----FEEEE	50s	EEEEEEEEEE
	60s	EEEEEEEEF		
070001	50s	·EEEEEF---	60s	·FEEEBAACC
	70s	CC		
071001	60s	----CC		
071002	60s	----FBAAAA	70s	AAAAC
072004	80s	-------F		
073010	80s	-------F		
075001	60s	---FEF		
075002	60s	·FEEEEF		
076001	50s	---FEEEF--	60s	FEEEEEEEEE
	70s	F		
076003	60s	·FEEEEF		
076004	60s	--FEEF		
076007	80s	--------F		

Gauged daily flows, monthly peaks and monthly rainfall

KEY:

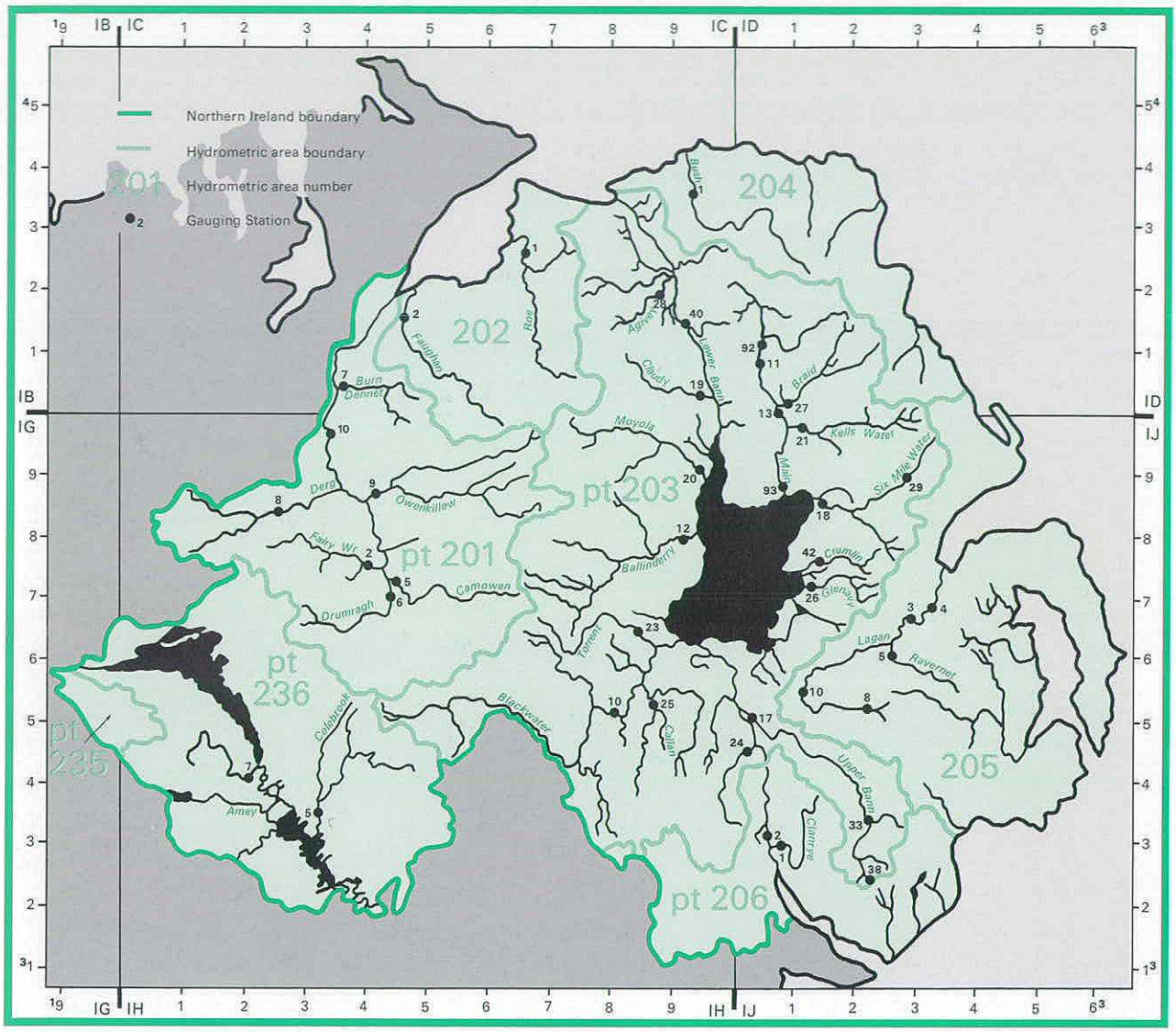
	Complete rainfall	Incomplete or missing rainfall
Complete daily and complete peaks	A	a
Complete daily and partial peaks	B	b
Complete daily and no peaks	C	c
Partial daily and complete peaks	D	d
Partial daily and partial peaks	E	e
Partial daily and no peaks	F	f
No flow data	†	–

Naturalised daily and monthly flows

KEY:

Complete daily and complete monthly	A
Partial daily and complete monthly	B
Partial daily and partial monthly	C
Partial daily and no monthly	D
No daily and complete monthly	E
No daily and partial monthly	F
No naturalised flow data	–

NORTHERN IRELAND



Area: 14,133 km²

Average Rainfall (1961–90): 1059mm

Gauging Station Register

Station number	River name	Station name	Grid reference	Catchment area (sq km)	Station type	Period of record	Mean ann. rainfall (mm)	Mean ann. runoff (mm)	Mean ann. loss (mm)	Max. ann. runoff (mm)	Year of max.	Min. ann. runoff (mm)	Year of min.	Mean flow (m^3s^{-1})	Min. mon. flow (m^3s^{-1})	Month/Year of min.	Mean ann. flood (m^3s^{-1})	10 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
201002	Fairy Water	Dudgeon Bridge	IH 406758	161.2	VA	1971..90	*1340*	1004	336	**1338**	**86**	617	75	5.13	0.19	08/76		13.0	0.31
201005	Camowen	Camowen Terrace	IH 460730	274.6	VA	1972–90	1136	776	360	**969**	**86**	471	75	6.76	**0.55**	**07/89**		15.4	1.03
201006	Drumragh	Campsie Bridge	IH 458722	324.6	VA	1972–90	1167	781	386	**1019**	**86**	466	75	8.04	**0.40**	**07/89**	15.5	20.4	0.53
201007	Burn Dennet	Burndennet Br	IC 372047	145.3	VA	1975..90	1167	861	306	**1348**	**90**	572	76	3.97	0.58	08/76		8.4	0.88
201008	Derg	Castlederg	IH 265842	337.3	VA	1976–90	*1693*	1286	407	**1584**	**90**	1066	84	13.75	0.26	08/83		33.4	0.65
201009	Owenkillew	Crosh	IH 418866	442.4	VA	1980–90	*1448*	1158	290	**1423**	**86**	940	83	16.24	1.72	08/83		36.5	2.36
201010	Mourne	Drumnabuoy Ho	IH 347960	1844.5	VA	1982–90	*1361*	949	412	1113	86	774	87	55.50	4.32	08/83		130.8	5.84
202001	Roe	Ardnargle	IC 674247	365.6	VA	1981..90	*1305*	814	491	1065	86	534	83	9.43	1.09	08/83		23.5	1.19
202002	Faughan	Drumahoe	IC 464151	272.3	VA	1976..90	*1281*	950	331	1557	81	**687**	**89**	8.20	**0.86**	**07/89**		17.5	1.13
203010	Blackwater	Maydown Bridge	IH 820519	951.4	VA	1970–90	974	573	401	**791**	**88**	322	75	17.28	0.60	08/75		44.3	1.00
203011 *	Main	Dromona	ID 052086	228.8	VA	1970–80		800		1006	79	588	75	5.81	0.72	08/76		13.9	0.72
203012 *	Ballinderry	Ballinderry Br	IH 926799	419.5	VA	1970–90	*1112*	655	457	**867**	**88**	395	75	8.71	1.06	08/75		18.5	1.68
203013	Main	Andraid	IJ 092973	646.8	VA	1970–89	*1167*	746	421	1005	81	489	75	15.31	1.36	08/83		35.7	1.89
203017	Upper Bann	Dynes Bridge	IJ 043509	335.6	VA	1970–90	1021	478	543	618	81	**278**	**89**	5.08	0.33	07/77		12.1	0.46
203018	Six Mile Wtr	Antrim	IJ 146867	277.3	VA	1970–90	*1125*	679	446	**862**	**88**	409	75	5.97	0.53	08/83		12.2	0.84
203019	Claudy	Glenone Bridge	IC 962037	130.1	VA	1972..90	*1186*	779	407	1153	82	458	75	3.21	0.21	08/75		7.8	0.30
203020	Moyola	Moyola New Br	IH 955905	306.5	VA	1971–90	*1274*	840	434	**1096**	**90**	510	75	8.16	0.75	08/75		18.9	1.18
203021	Kells Water	Currys Bridge	IJ 106971	127.0	VA	1971–90	*1174*	807	367	1132	81	516	75	3.25	0.12	08/83		7.9	0.21
203023	Torrent	The Moor Bridge	IH 858649	59.9	VA	1972..90		607		889	74	409	76	1.15	0.08	07/77		2.4	0.12
203024	Cusher	Gambles Bridge	IJ 048471	176.7	VA	1971..90	*972*	588	384	**825**	**88**	350	75	3.29	**0.07**	**07/89**		8.1	0.11
203025	Callan	Callan New Br	IH 893524	164.1	VA	1971–90	*906*	527	379	726	82	284	75	2.74	0.18	07/75		6.3	0.38
203026	Glenavy	Glenavy	IJ 149725	44.6	TPVA	1971..90	*1034*	534	500	839	72	250	75	0.75	0.05	07/84		1.5	0.08
203027	Braid	Ballee	ID 097014	177.2	VA	1972..90	1184	673	511	1027	81	404	75	3.78	0.31	07/84		7.6	0.56
203028	Agivey	White Hill	IC 883193	98.9	VA	1972–90	1221	905	316	1148	81	690	83	2.84	0.19	07/84		6.6	0.31
203029	Six Mile Wtr	Ballyclare	IJ 282902	58.4	VA	1973–90	*1218*	869	349	1158	76	538	75	1.61	0.10	07/78		3.4	0.16
203033	Upper Bann	Bannfield	IJ 233341	100.9	VA	1975..90	*1250*	824	426	**1035**	**88**	596	83	2.64	0.14	07/75		6.6	0.23
203038	Rocky	Rocky Mountain	IJ 243265	- 6.7	FV	1983..90	*1516*	1431	85	1567	88	1247	89	0.30	0.03	05/84		0.7	0.04
203040	Lower Bann	Movanagher	IC 931154	5209.8	VA	1980..90	*1029*	551	478	649	81	422	89	91.08	11.16	09/83		191.9	11.99
203042	Crumlin	Cidercourt Br	IJ 135765		VA	1981–90	*1005*				88		83	1.09	0.06	07/84		2.4	0.08
203092	Main	Dunminning Lwer	ID 051111	211.7	VA	1983–89		790		977	88	693	89	5.31	0.50	08/83		12.0	0.74
203093	Main	Shane's Viaduct	IJ 086896	704.2	VA	1984–89		807		922	88	660	89	18.02	1.20	07/84		39.1	1.83
204001	Bush	Seneirl	IC 942362	306.1	VA	1972..89	*1100*	707	393	1773	78	408	75	6.86	0.45	08/83		14.2	0.86
205003 *	Lagan	Dunmurry	IJ 299679	444.7	VA	1971–84		503		671	81	297	75	7.09	0.05	05/84		17.8	0.46
205004	Lagan	Newforge	IJ 329693	490.4	VA	1972–89	*897*	573	324	787	79	309	75	8.90	0.62	08/76		21.3	0.95
205005	Ravernet	Ravernet	IJ 267613	69.5	FV	1972–89	902	455	447	580	74	**303**	**89**	1.00	0.01	07/84		2.5	0.02
205006 *	Lagan	Blaris	IJ 259628	315.9	VA	1972–80		442		570	80	260	75	4.43	0.15	08/75		11.1	0.24
205008	Lagan	Drummiller	IJ 236525	85.2	VA	1974..89	*1009*	687	322	1095	81	308	75	1.85	0.04	07/75		4.2	0.06
205010	Lagan	Banoge	IJ 123540	189.8	VA	1974..89		430		670	78	217	83	2.59	0.02	07/84		5.4	0.04
205020	Enler	Comber	IJ 459697	59.8	FV	1983..90	*975*	478	497	518	84	319	89	0.91	0.06	07/84		1.9	0.09
206001 *	Clanrye	Mount Mill Br	IJ 086309	132.7	VA	1976–80		545		613	79	474	77	2.29	0.08	08/76		5.2	0.13
206002	Jerretspass	Jerretspass	IJ 064332	41.6	VA	1972–89		502		747	79	189	73	0.66	0.01	10/72		1.7	0.02
236005	Colebrooke	Ballindarragh Br	IH 331359	309.1	VA	1975..90	*1363*	703	660	908	88	582	76	6.89	0.61	06/77		16.1	0.71
236007	Sillees	Drumrainy Br	IH 205400	167.6	VA	1981–89		844		984	86	666	87	4.49	0.09	07/89		10.9	0.27

Hydrometric Statistics

	Period	Rainfall (mm)	% of pre-1986	Runoff (mm)	% of pre-1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
201002 **Fairy Water at Dudgeon Bridge** C.A: 161.2 km²	**71..85**	*1295*		**952**		**4.87**	**113.5**	**21/09 1985**	**0.06**	**08/07 1984**	**12.4**	**2.40**	**0.27**
M.A: DOEN Level: 61m Local Number: -													
F.A.R: B.F.I: .26 Sensitivity:	1986	1555	120	1338	141	6.84	81.8	22/11	0.29	02/03	17.7	2.91	0.44
Comment: Velocity-area station with cableway. No water abstractions or significant returns. # Catchment geology is 50% Carboniferous Limestone some exposed, with extensive areas of till and alluvium drift deposits on both banks of the river. Predominantly agricultural grassland with some upland heath and coniferous forest.	1987	1135	88	937	98	4.79	**118.5**	**21/10**	0.54	21/05	9.9	2.24	0.74
	1988	1379	106	1331	140	6.79	85.0	09/02	0.42	22/05	16.6	3.60	0.62
	1989	1218	94	972	102	4.97	73.2	28/10	0.32	24/07	14.1	2.17	0.44
	1990	1529	118										
201005 **Camowen at Camowen Terrace** C.A: 274.6 km²	**72-85**	**1117**		**757**		**6.59**	**128.4**	**01/12 1978**	**0.49**	**23/08 1984**	**15.0**	**4.18**	**1.04**
M.A: DOEN Level: 66m Local Number:													
F.A.R: B.F.I: .43 Sensitivity:	1986	1314	118	969	128	8.44	90.4	16/12	1.10	17/10	19.3	5.22	1.37
Comment: Velocity-area station with cableway and weir control - informal broad-crested structure (for angling enhancement), dimensions not known. The net effect of abstractions for public water supply and augmentations from effluent returns is minor. # Catchment geology: mixed impermeable rocks (granite, schist and gneiss, and sandstone) overlain by substantial deposits of till, sand and gravel. Largely upland given over mainly to grassland or heath.	1987	1021	91	687	91	5.98	**180.2**	**21/10**	1.00	24/07	11.8	3.64	1.25
	1988	1270	114	937	124	8.14	112.3	19/01	0.61	21/05	18.0	5.09	1.00
	1989	991	89	635	84	5.53	49.3	23/03	**0.37**	**14/07**	13.7	3.11	0.49
	1990	1333	119	906	120	7.89	90.6	01/02	1.08	01/06	18.4	4.42	1.32
201006 **Drumragh at Campsie Bridge** C.A: 324.6 km²	**72-85**	*1162*		**758**		**7.80**	**203.5**	**19/02 1973**	**0.18**	**18/09 1976**	**20.1**	**4.10**	**0.52**
M.A: DOEN Level: 63m Local Number:													
F.A.R: B.F.I: .35 Sensitivity:	1986	1321	114	1019	134	10.49	113.6	25/11	0.66	13/10	26.3	5.53	0.92
Comment: Velocity-area station with cableway. No water abstractions or significant returns. # Catchment geology is approx 70% lower Old Red Sandstone with some conglomerates overlain with alluvium till and some peat. Approx 50% agricultural grassland and 50% upland heath.	1987	989	85	688	91	7.08	197.3	21/10	0.85	11/08	15.7	3.77	1.07
	1988	1215	105	1021	135	10.48	110.9	19/01	1.04	30/06	25.5	6.06	1.33
	1989	1015	87	611	81	6.29	80.5	11/04	0.33	19/07	17.8	2.47	0.37
	1990	1358	117										

		Period	Rainfall (mm)	% of pre-1986	Runoff (mm)	% of pre-1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
201007	**Burn Dennet at Burndennet Bridge** C.A: 145.3 km²	**75..85**	**1120**		**786**		**3.62**	**64.5**	**14/11 1978**	**0.41**	**28/08 1976**	**7.9**	**2.73**	**0.79**
M.A: DOEN	Level: 2m Local Number:													
F.A.R: E	B.F.I: .56 Sensitivity:	1986	1346	120	963	123	4.44	50.8	04/12	1.13	01/10	9.2	3.46	1.26
Comment: Velocity-area station with cableway and natural control; discharge through the underlying gravels may be substantial. No water abstractions or significant returns. # Geology is schist, limestone and quartzite curtailed at Burndennet Bridge by a major fault drop. Extensive sand and gravel deposits either side of the River Remainder, till and limited peat. About 70% of the catchment is upland heath rising to above 500 mOD; remainder agricultural grassland.		1987	1095	98	856	109	3.94	**110.8**	**21/10**	1.00	08/07	7.4	2.63	1.23
		1988	1327	118	996	127	4.58	70.0	18/01	0.79	05/07	9.5	3.28	1.02
		1989	1125	100	923	117	4.25	49.6	27/10	1.18	05/08	8.5	3.16	1.30
		1990	1457	130	1348	172	6.21	87.1	01/10	1.79	15/09	12.5	4.24	2.00
201008	**Derg at Castlederg** C.A: 337.3 km²	**76-85**	*1691*		**1246**		**13.33**	**232.9**	**20/09 1985**	**0.08**	**14/08 1983**	**32.4**	**7.54**	**0.61**
M.A: DOEN	Level: 43m Local Number:													
F.A.R: E	B.F.I: .34 Sensitivity:	1986	1981	117	1474	118	15.76	176.9	04/12	0.30	27/02	39.4	9.04	0.71
Comment: Velocity-area station with cableway. Headwaters contain Lough Derg and Lough Mourne but there are no significant water abstractions or effluent returns upstream of the station. # Heavily faulted strata in Upper and Middle Dalradian Quartzite series. Erractic overburden of till, peat and alluvium, considerable rock dominance. Approx. 50% upland heath, 40% agricultural grassland, 10% coniferous forest. Castlederg (pop. 2,000). Highest basinal runoff per unit area in N.Ireland.		1987	1399	83	1076	86	11.51	192.9	21/10	0.80	28/05	28.3	6.51	1.27
		1988	1676	99	1440	116	15.36	171.6	09/02	0.08	28/06	33.2	10.47	0.28
		1989	1559	92	1246	100	13.32	223.2	27/10	0.15	17/07	33.1	7.24	0.41
		1990	1843	109	1584	127	16.94	219.5	01/10	0.96	26/07	40.6	10.42	1.80
201009	**Owenkillew at Crosh** C.A: 442.4 km²	**80-85**			**1102**		**15.46**	**363.0**	**21/09 1985**	**1.16**	**14/08 1983**	**35.0**	**9.42**	**2.21**
M.A: DOEN	Level: 40m Local Number:													
F.A.R: N	B.F.I: .39 Sensitivity:	1986	1550		1423	129	19.96	313.0	04/12	2.88	05/10	44.6	12.17	3.36
Comment: Velocity-area station with cableway. No water abstractions or significant returns. # Complicated faulted mixture of Upper Dalradian Green Beds and schists, basalts and igneous complexes, with small area of limestone; overlain by sands, gravels, peat and till, alluvium near water courses. Catchment of grassland, heath and forest. Substantial areas of habitation.		1987	1239		1047	95	14.68	**500.7**	**21/10**	3.01	07/07	31.0	8.30	3.46
		1988	1544		1377	125	19.27	336.5	18/01	2.09	19/06	44.5	11.61	2.37
		1989	1251		948	86	13.30	264.2	21/03	1.71	17/07	33.6	7.40	1.87
		1990	1657											
201010	**Mourne at Drumnabuoy House** C.A: 1844.5 km²	82-85			935		54.68	892.5	21/09 1985	3.13	27/07 1984	131.3	33.90	4.94
M.A: DOEN	Level: m Local Number:													
F.A.R:	B.F.I: .42 Sensitivity:	1986	1518		1113	119	65.11	647.2	06/08	5.38	12/09	155.2	38.56	6.68
Comment: Velocity-area station with cableway and natural control. # Geology is mixed impermeable (granite, schist and gneiss, and sandstone) with some Carboniferous Limestone west of Omagh. A mainly rural catchment (grassland and heath with limited afforestation), with urban development at Omagh (pop. 15,000 - no major industry).		1987	1150		774	83	45.26	1147.5	21/10	6.32	27/05	103.1	25.53	8.10
		1988	1411		1049	112	61.18	675.0	09/02	4.80	24/06	138.2	38.90	6.45
		1989	1196		802	86	46.90	647.2	28/10	1.53	24/07	116.4	25.09	4.36
		1990	1533											
202001	**Roe at Ardnargle** C.A: 365.6 km²	81..85			722		8.37	288.9	23/03 1984	0.76	27/07 1984	19.5	4.36	1.11
M.A: DOEN	Level: 1m Local Number:													
F.A.R: SR	B.F.I: .36 Sensitivity:	1986			1065	148	12.35	120.2	05/12	1.77	23/09	28.2	7.72	2.13
Comment: Velocity-area station with cableway. Rough profiled stone and concrete weir immediately downstream, at upstream limit of backwaters created by tides. Headwaters contain Altnaheglish reservoir, Yielding some 32 Ml/d. # High upland headwater area sloping fairly steeply onto an intensively cultivated alluvial plain. Geology very varied with metamorphic, sedimentary and contemp oraneous igneous rocks. Contains towns of Limarady (pop. 8,000) and Dungiven (pop. 2,500).		1987	1090		766	106	8.88	144.9	21/10	0.90	08/07	19.6	5.43	2.45
		1988	1473		1055	146	12.20	134.4	19/01	0.34	24/06	28.9	6.78	1.42
		1989	1170		736	102	8.53	122.3	28/10	0.31	12/07	21.2	4.43	0.76
		1990	1478											
202002	**Faughan at Drumahoe** C.A: 272.3 km²	**76..85**			**997**		**8.61**	**238.0**	**20/09 1985**	**0.77**	**31/08 1983**	**18.0**	**6.05**	**1.26**
M.A: DOEN	Level: 7m Local Number:													
F.A.R: PGEI	B.F.I: .50 Sensitivity:	1986	1338		995	100	8.59	170.6	04/12	**0.12**	**22/07**	21.1	5.52	0.76
Comment: Velocity-area station with cableway and natural control. # Geology - layered Upper Dalradian with some quartzite. Drift - till, peat and alluvium, some glacial outwash near river. Suburban development near coast - some light industry; otherwise agricultural, upland basin. Important game angling river.		1987	1083		826	83	7.13	**295.8**	**21/10**	1.81	15/12	12.6	4.65	2.54
		1988	1355		871	87	7.50	150.8	18/01	0.84	24/05	16.3	4.60	1.00
		1989	1136		687	69	5.93	136.1	21/03	0.61	22/07	13.3	3.51	0.72
		1990	1492		943	95	8.14	77.4	06/10	0.93	15/09			
203010	**Blackwater at Maydown Bridge** C.A: 951.4 km²	**70-85**	**956**		**551**		**16.61**	**107.9**	**26/07 1985**	**0.04**	**06/09 1975**	**43.3**	**9.59**	**0.87**
M.A: DOEN	Level: 15m Local Number:													
F.A.R: GN	B.F.I: .44 Sensitivity:	1986	1120	117	669	121	20.19	**112.1**	**15/04**	1.24	15/10	52.3	11.99	1.50
Comment: Velocity-area station with cableway and natural control. Flows influenced by major arterial drainage scheme - started in 1988. A substantial portion of the catchment is in the Irish Republic where some groundwater may be abstracted but its hydrological significance is uncertain. # Geology: Carboniferous Limestone and Millstone Grit with sandstones overlain by substantial amounts of till. A predominantly rural catchment with limited afforestation. Monaghan Town (pop. 5,000) - in the Irish Republic - is the only significant urban centre.		1987	866	91	540	98	16.29	**144.8**	**22/10**	1.24	10/08	36.1	11.05	1.71
		1988	1130	118	793	144	23.85	132.8	19/01	1.71	22/05	55.7	15.83	2.57
		1989	886	93	516	94	15.57	112.8	17/12	0.53	25/07	38.9	9.06	0.84
		1990	1135	119	687	125	20.71	**163.8**	**01/02**	1.63	08/08	53.9	10.04	2.09
203012	**Ballinderry at Ballinderry Bridge** C.A: 419.5 km²	**70-85**	*1058*		**633**		**8.42**	**152.7**	**22/10 1980**	**0.61**	**14/08 1975**	**18.0**	**5.37**	**1.61**
M.A: DOEN	Level: 16m Local Number:													
F.A.R: N	B.F.I: .51 Sensitivity:	1986	1208	114	804	127	10.69	125.5	06/08	2.01	22/07	27.6	6.67	2.19
Comment: Velocity-area station with cableway and natural control. # The geology is very mixed comprising of granite, schist, shale and some Carboniferous Limestone overlain with substantial amounts of till and gravel. Mainly rural catchment (grassland or heath) with significant upland area. Cookstown (pop. 8,000) has cement manufacturing works nearby.		1987	1000	95	662	105	8.81	**194.8**	**21/10**	1.81	07/08	16.6	5.97	2.41
		1988	1264	119	869	137	11.53	183.2	19/01	2.02	27/06	24.3	7.47	2.29
		1989	979	93	547	86	7.27	73.4	27/10	1.47	12/09	16.3	4.58	1.65
		1990	1256	119	737	116	9.80	119.5	25/01	1.69	15/09			
203013	**Main at Andraid** C.A: 646.8 km²	**70-85**			**737**		**15.11**	**308.7**	**07/09 1985**	**1.08**	**27/08 1984**	**35.4**	**8.36**	**1.87**
M.A: DOEN	Level: 30m Local Number:													
F.A.R:	B.F.I: .39 Sensitivity:	1986	1238		881	120	18.07	286.2	26/08	1.93	13/07	45.9	9.13	2.23
Comment: Velocity-area station with natural control, no cableway. Unstable bed. Reservoir storage in catchment with abstractions for industrial use and public water supply, also groundwater augmentation and abstraction. However, the net effect of these is minor. # Geology almost entirely basalt overlain by till (covering >50% of the catchment). Significant upland areas, predominantly grassland or heath with limited afforestation. Urban area: Ballymena (pop. 28,000) with substantial light industry.		1987	1059		710	96	14.57	**312.2**	**21/10**	2.34	08/07	29.5	8.36	3.20
		1988	1305		962	131	19.68	251.4	19/01	1.33	03/07	44.5	12.27	1.53
		1989	1050		578	78	11.86	190.3	28/10	1.11	07/08	28.6	6.40	1.40
		1990	1351											
203017	**Upper Bann at Dynes Bridge** C.A: 335.6 km²	**70-85**	*1030*		**497**		**5.29**	**159.9**	**28/12 1978**	**0.11**	**29/06 1975**	**12.7**	**2.38**	**0.45**
M.A: DOEN	Level: 13m Local Number:													
F.A.R: SR	B.F.I: .36 Sensitivity:	1986	1061	103	502	101	5.34	106.1	15/04	0.71	26/07	13.3	2.25	0.83
Comment: Velocity-area station with cableway, natural control. Channel capacity is large. Main road bridge 100m downstream gives partial control at medium and high stages. Upper one third of the drainage area is regulated with a minimum prescribed flow of 18 Ml/d at Bannfield (203033). # Geology is impermeable (quartzite and granite) overlain by superficial deposits (mainly till). Significant upland, predominantly grassland or heath, limited afforestation. Urban area at Banbridge (pop. 10,000), no major industry.		1987	910	88	339	68	3.60	52.8	21/10	0.62	25/05	8.5	2.01	0.87
		1988	1115	108	508	102	5.39	85.5	19/01	0.70	29/06	13.4	2.35	0.92
		1989	854	83	278	56	2.95	40.8	11/04	0.30	23/08	6.4	1.57	0.40
		1990	1043	101	446	90	4.75	59.3	24/11	0.59	16/09			

	Period	Rainfall (mm)	% of pre-1986	Runoff (mm)	% of pre-1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
203018 **Six Mile Water at Antrim** C.A: 277.3 km²	**70-85**	*1134*		**655**		**5.76**	**146.0**	**28/12 1978**	**0.17**	**01/09 1970**	**12.0**	**3.84**	**0.76**
M.A: DOEN Level: 13m Local Number:													
F.A.R: REI B.F.I: .53 Sensitivity:	1966	1181	104	811	124	7.13	116.7	15/04	1.38	24/07	15.4	4.84	1.67
Comment: Velocity-area station with cableway and natural control. The net effect of industrial abstractions and effluent returns is minor. # The geology is almost entirely basalt with considerable superficial deposits (till). Significant proportion of upland - predominantly grassland or heath, limited afforestation. Urban area: Antrim (pop. 23,000) has substantial light industry and Ballyclare (pop. 6,000) is a small market town.	1967	992	87	695	106	6.11	**191.8**	**21/10**	1.37	08/07	11.2	4.44	1.74
	1968	1250	110	864	132	7.58	116.7	18/01	1.41	29/06	14.9	4.95	1.82
	1989	978	86	662	101	5.82	69.9	02/04	1.12	18/07	10.7	4.48	1.44
	1990	1148	101	747	114	6.57	64.6	25/01	1.37	15/09			
203019 **Claudy at Glenone Bridge** C.A: 130.1 km²	**72..85**			**765**		**3.16**	**53.8**	**23/10 1980**	**0.06**	**18/08 1977**	**7.8**	**1.87**	**0.27**
M.A: DOEN Level: 14m Local Number:													
F.A.R: B.F.I: .43 Sensitivity:	1986	1249		856	112	3.53	35.7	16/04	0.35	16/10	8.6	2.06	0.47
Comment: Velocity-area station with cableway and natural control. Rock bar with boulders 8m downstream of gauge gives low flow control. Three arch-road bridge 50m downstream gives medium and high flow control. # Geology is basalt overlain with till and some peat. Catchment is predominantly grassland with no urban areas or major industry.	1987	1019		675	88	2.78	**62.5**	**21/10**	0.45	27/05	5.7	1.69	0.54
	1988	1338		996	130	4.10	52.2	09/02	0.32	06/07	9.3	2.59	0.51
	1989	1030		663	87	2.74	28.5	02/04	0.27	23/07	6.6	1.56	0.37
	1990	1294											
203020 **Moyola at Moyola New Bridge** C.A: 306.5 km²	**71-85**	*1195*		**796**		**7.73**	**154.6**	**04/12 1975**	**0.17**	**11/06 1979**	**18.2**	**4.63**	**1.08**
M.A: DOEN Level: 13m Local Number:													
F.A.R: SPGI B.F.I: .43 Sensitivity:	1986	1398	117	1068	134	10.38	112.7	15/11	1.90	04/10	23.5	6.17	2.19
Comment: Velocity-area station with cableway and un-rated weir control. Multi-arched bridge just downstream of station, area between piers revetted with generally rounded profile, crests horizontal at same level across river. Reservoir storage in catchment. # Mixed geology - some basalt, Carboniferous Limestone, schist and shale overlain with till, sand and gravel. Predominantly grassland and heath with limited afforestation. Urban areas at Magherafelt (pop. 5,000) and Maghera (pop. 2,000) but no major industry.	1987	1130	95	838	105	8.14	134.8	21/10	1.97	07/08	16.8	5.21	2.42
	1988	1449	121	1093	137	10.60	152.2	19/01	1.13	26/06	23.0	6.61	1.74
	1989	1167	98	771	97	7.49	102.8	02/04	1.25	04/08	18.6	4.49	1.53
	1990	1458	122										
203021 **Kells Water at Currys Bridge** C.A: 127.0 km²	**71-85**	*1100*		**785**		**3.16**	**96.5**	**07/09 1985**	**0.06**	**11/08 1983**	**7.9**	**1.57**	**0.20**
M.A: DOEN Level: 35m Local Number:													
F.A.R: B.F.I: .32 Sensitivity:	1986	1288	117	987	126	3.98	**133.4**	**25/08**	0.25	13/10	8.8	2.13	0.32
Comment: Velocity-area station with cableway and natural control. Reservoir storage in catchment and abstractions for public water supply but net effect is minor. Gauging station is 1.5km upstream of confluence with R. Main and there is some backing-up at high flows. # Catchment geology: basalt overlain by glacial drift. Predominantly upland area - mostly heath, some upland grass pasture, limited afforestation.	1987	1085	99	780	99	3.14	123.5	21/10	0.12	08/07	6.9	1.53	0.31
	1988	1341	122	1024	130	4.11	78.0	18/01	0.12	29/06	8.9	2.50	0.32
	1989	1071	97	702	89	2.83	55.5	28/10	**0.04**	**18/07**	6.3	1.54	0.14
	1990	1297	118										
203023 **Torrent at The Moor Bridge** C.A: 59.9 km²	**72..85**			**598**		**1.14**	**33.4**	**27/01 1985**	**0.05**	**23/08 1976**	**2.4**	**0.88**	**0.11**
M.A: DOEN Level: 15m Local Number:													
F.A.R: B.F.I: .57 Sensitivity:	1986												
Comment: Velocity-area station with calibration by wading. Downstream control affected by unprofiled stone weir structure. Station bypassed by disused canal at high flood. # Geology faulted combination of Carboniferous Limestones, shales and coal measures. Some areas of Sherwood Sandstone and Lough Neagh clay. Catchment contains town of Coalisland (pop 3,500). Currently brickmaking and agricultural land use, formerly some mining areas.	1987			536	90	1.02	13.8	21/10	0.15	11/08	2.0	0.76	0.18
	1988			762	127	1.44	12.8	09/02	0.12	28/06	3.3	0.99	0.17
	1989			516	86	0.98	8.3	28/10	0.08	20/07	2.2	0.71	0.11
	1990												
203024 **Cusher at Gambles Bridge** C.A: 176.7 km²	**71..85**			**563**		**3.16**	**71.2**	**26/07 1985**	**0.01**	**23/08 1976**	**7.7**	**1.57**	**0.11**
M.A: DOEN Level: 14m Local Number:													
F.A.R: B.F.I: .40 Sensitivity:	1986	1035		696	124	3.90	53.9	10/12	0.20	27/07	10.0	2.14	0.29
Comment: Velocity-area station with cableway. Sheet piling, installed in 1980, immediately downstream has stablised the measuring section. Effect of augmentations is minor. # Geology predominantly quartzite with basalt overlain by till. Rural catchment, mostly grassland, some arable farming. Small urban area: Tandragee (pop. 2,000).	1987	874		798	142	4.47	**77.3**	**21/10**	0.37	11/08	10.2	2.73	0.53
	1988	1095		828	147	4.63	63.5	18/01	0.07	22/05	11.5	2.21	0.40
	1989	804		372	66	2.09	35.0	11/04	0.02	05/08	5.4	0.86	0.04
	1990	1056											
203025 **Callan at Callan New Bridge** C.A: 164.1 km²	**71-85**	*878*		**521**		**2.71**	**50.1**	**19/01 1973**	**0.12**	**03/08 1975**	**6.3**	**1.45**	**0.34**
M.A: DOEN Level: 16m Local Number:													
F.A.R: B.F.I: .44 Sensitivity:	1986	992	113	607	117	3.16	45.2	15/04	0.80	02/03	7.2	1.78	0.86
Comment: Velocity-area station with cableway; natural control. Reservoir storage in catchment with abstractions for public water supply and industrial use; minor net effect. # Geology: mixed shales (Carboniferous) and quartzite (Ordovician), overlain by till. Predominantly grassland and heath, limited arable use. Small amount of upland with limited afforestation. Urban area Armagh (pop. 13,000) with some light industry.	1987	828	94	494	95	2.57	**50.5**	**22/10**	0.76	25/05	5.0	1.59	0.87
	1988	1033	118	666	128	3.45	47.9	18/01	0.56	21/05	8.3	1.71	0.69
	1989	744	85	409	79	2.13	30.3	06/04	0.42	03/10	4.7	1.12	0.46
	1990	1002	114										
203026 **Glenavy at Glenavy** C.A: 44.6 km²	**71..85**			**531**		**0.75**	**29.6**	**28/12 1978**	**0.01**	**16/10 1977**	**1.5**	**0.37**	**0.08**
M.A: DOEN Level: 56m Local Number:													
F.A.R: B.F.I: .44 Sensitivity:	1986	1063		489	92	0.69	21.7	25/08	0.06	12/10	1.6	0.34	0.08
Comment: Velocity-area station, no cableway, thin-plate weir control. Reservoir storage (Stoneyford) in catchment with abstractions for public water supply - minor net effect. # Geology: mainly basalt overlain with till. Catchment is largely upland, predominantly grassland and heath.	1987	965		544	102	0.77	**33.9**	**21/10**	0.07	11/08	1.5	0.47	0.14
	1988	1157		649	122	0.91	29.9	18/01	0.08	09/05	1.7	0.71	0.15
	1989	915		467	88	0.66	14.1	01/04	0.08	08/06	1.4	0.39	0.10
	1990	1071											
203027 **Braid at Ballee** C.A: 177.2 km²	**72-85**	**1187**		**622**		**3.50**	**176.4**	**02/10 1981**	**0.16**	**27/08 1984**	**7.5**	**2.13**	**0.50**
M.A: DOEN Level: 35m Local Number:													
F.A.R: SPE B.F.I: .48 Sensitivity:	1986	1224	103	936	150	5.26	85.5	25/08	0.75	02/03	11.9	3.31	1.12
Comment: Velocity-area station with cableway. Two small impounding reservoirs (capacity 409 Ml combined) for a public water extraction of 5 Ml/d. Town effluent returned to river; heavy weed growth in river at Ballee due to effluent conditions. # Geology entirely Upper and Lower Basalt extensively exposed with thin covering of till. Some alluvium, sand and gravel near to the river. Approx 50% upland heath rising to 400m, 50% agricultural grassland. Some intensive pig and poultry units. Ballymena is the major settlement (pop. 28,000).	1987	1037	87	713	115	4.01	136.4	21/10	1.25	08/08	7.0	2.79	1.61
	1988	1287	108										
	1989	1017	86	695	112	3.90	61.7	28/10	1.11	07/08	6.7	2.62	1.48
	1990	1319	111										
203028 **Agivey at White Hill** C.A: 98.9 km²	**72-85**	**1177**		**898**		**2.82**	**113.5**	**19/01 1973**	**0.08**	**07/09 1976**	**6.5**	**1.60**	**0.28**
M.A: DOEN Level: 17m Local Number:													
F.A.R: N B.F.I: .35 Sensitivity:	1986	1423	121	914	102	2.87	66.3	06/08	0.25	16/10	7.5	1.60	0.32
Comment: Velocity-area station with cableway. # Geology: mainly basalt overlain by till with some peat. Significant proportion of upland, predominantly grassland or heath. No urban areas or major industry.	1987	1144	97	783	87	2.46	**159.3**	**21/10**	0.35	06/07	5.1	1.24	0.43
	1988	1540	131	1038	116	3.25	86.6	18/01	0.22	18/06	7.7	1.85	0.35
	1989	1191	101	789	88	2.47	56.4	27/10	0.19	24/07	5.8	1.30	0.28
	1990	1420	121	1081	120	3.39	97.1	01/10	0.44	16/09	8.4	1.74	0.51
203029 **Six Mile Water at Ballyclare** C.A: 58.4 km²	**73-85**			**901**		**1.67**	**76.9**	**02/10 1981**	**0.05**	**21/07 1978**	**3.5**	**1.11**	**0.17**
M.A: DOEN Level: 59m Local Number:													
F.A.R: B.F.I: .50 Sensitivity:	1986	1310		958	106	1.77	**80.1**	**26/08**	0.14	12/10	3.7	1.22	0.20
Comment: Velocity-area station without cableway. The net effect of augmentation is minor. # Catchment is almost entirely basalt with considerable superficial deposits of till. Except for the small market town of Ballyclare (pop. 6,000) the catch -ment is predominantly grassland or heath upland with limited afforestation.	1987	1073		641	71	1.19	56.4	21/10	0.13	08/07	2.3	0.75	0.20
	1988	1403		944	105	1.74	56.3	18/01	0.11	04/07	3.5	1.08	0.17
	1989	1070		589	65	1.09	29.4	01/04	0.05	18/07	2.4	0.59	0.07
	1990	1231											

		Period	Rainfall (mm)	% of pre-1986	Runoff (mm)	% of pre-1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
203033	**Upper Bann at Bannfield** C.A: 100.9 km²	**75..85**	*1271*		**838**		**2.68**	**86.8**	**27/12 1978**	**0.09**	**17/09 1976**	**6.6**	**1.27.**	**.0.22**
M.A: DOEN	Level: 77m Local Number:													
F.A.R:	B.F.I: .34 Sensitivity:	1986	1297	102	884	105	2.83	61.0	15/04	0.19	17/10	6.3	1.49	0.24
Comment: Velocity-area station with cableway and natural control. From Aug 89 Flat Vee under construction, operational late 1990. Reservoir storage in catchment with abstractions for public water supply the net effect of which is minor. The station is used to monitor a prescribed flow of 18#Ml/d. # The Upper Bann drains the Mourne Mountains. The catchment is predominantly upland heath. Geology: impermeable (granite and quartzite) overlain with substantial amounts of superficial deposits (till).		1987	1116	88	716	86	2.29	70.0	21/10	0.14	24/05	4.9	1.01	0.28
		1988	1409	111	1037	124	3.31	81.4	25/10	0.28	29/06	7.3	1.78	0.38
		1989	1112	87										
		1990	1247	98										
203038	**Rocky at Rocky Mountain** C.A: 6.7 km²	83..85						8.2	27/01 1985	0.01	30/05 1984			
M.A: DOEN	Level: m Local Number:													
F.A.R: N	B.F.I: .33 Sensitivity:	1986	1547											
Comment: Flat V weir, approx. 6.1 metres wide in steep mountain stream - pebble/cobble bed, large boulders may settle in measuring reach during floods. Theoretical calibration - some confirmatory gaugings (by wading) completed. All but notable floods contained. Natural and responsive regime. Catchment rainfall may be underestimated. # The Rocky River drains a rugged, impervious catchment - with some thin peat cover - in the Mourne Mountains.		1987	1380		1327		0.28	7.1	26/02	0.03	27/05	0.7	0.14	0.05
		1988	1685		1572		0.33	11.2	31/08	0.04	24/06	0.8	0.17	0.05
		1989	1488		1247		0.26	6.9	17/11	0.02	04/08	0.7	0.15	0.03
		1990	1483											
203040	**Lower Bann at Movanagher** C.A: 5209.8 km²	**80-85**			**568**		**93.86**	**264.3**	**21/02 1984**	**9.10**	**20/08 1984**	**194.8**	**44.04**	**10.99**
M.A: DOEN	Level: 7m Local Number:													
F.A.R: SR	B.F.I: .68 Sensitivity:	1986	1081		587	103	96.92	221.7	21/01	13.36	14/10	201.0	69.81	16.89
Comment: Velocity-area station no cableway, control is masonry weir 800#m d/s, (built for angling). Station measures flow from 37% of the area of N.Ireland. Flow rates regulated by sluices u/s at Portna and Toome. Lough Neagh (385#sq.km) is within catchment, containing 3636#Mm3 of water. Total net export of water from catchment is approx. 200#Ml/d. # Catchment contains all solid and drift deposits present in N.Ireland. Numerous aquifers developed for PWS. Catchment agricultural, but with pop. approx. 450,000 concentrated in 8 urban centres.		1987	905		497	88	82.17	224.3	21/10	15.73	20/04	182.8	44.26	19.75
		1988	1135		643	113	105.90	253.1	09/02	14.73	30/04	200.0	98.83	17.70
		1989	888		422	74	69.71	215.3	02/04	11.82	29/09	172.1	33.18	13.67
		1990	1138											
203042	**Crumlin at Cidercourt Bridge** C.A: km²	81-85					1.04	39.5	23/03 1984	0.02	27/07 1984	2.3	0.51	0.06
M.A: DOEN	Level: m Local Number:													
F.A.R:	B.F.I: .36 Sensitivity:	1986	1040				1.11	59.7	15/04	0.10	22/07	2.5	0.59	0.13
Comment: Velocity-area station with cableway and natural control. # Catchment geology is impermeable (mainly basalt) overlain by till. Mostly upland predominantly grassland or heath. No urban areas, some scattered light industry.		1987	933				0.96	48.5	20/10	0.09	07/07	2.2	0.49	0.15
		1988	1115				1.44	59.7	18/01	0.07	24/06	3.2	0.89	0.12
		1989	884				0.96	40.8	01/04	0.05	24/07	1.9	0.60	0.10
		1990	1053											
203092	**Main at Dunminning Lower** C.A: 211.7 km²	83-85			742		4.98	46.7	07/09 1985	0.39	07/09 1983	11.6	3.73	0.63
M.A: DOEN	Level: m Local Number:													
F.A.R: S	B.F.I: .51 Sensitivity:	1986			849	114	5.70	41.5	16/11	0.93	16/10	13.3	3.99	1.10
Comment: Velocity-area station with cableway located immediately downstream of a radial gated flood control structure. Reservoir effectively transfers 12#Ml/d to points downstream of the station. # Catchment contains extensive Glarryford bog overlaying deep Lower Basalt strata.		1987			761	103	5.11	59.3	21/10	0.93	08/07	10.3	3.68	1.26
		1988			980	132	6.56	48.9	24/01	0.59	05/07	14.7	4.98	0.73
		1989			693	93	4.66	42.1	28/10	0.54	28/07	10.5	3.09	0.66
		1990												
203093	**Main at Shane's Viaduct** C.A: 704.2 km²	84-85			805		17.98	251.1	07/09 1985	0.46	28/07 1984	39.5	12.49	1.20
M.A: DOEN	Level: m Local Number:													
F.A.R:	B.F.I: .48 Sensitivity:	1986			893	111	19.94	213.2	26/08	2.24	12/10	44.4	12.95	2.81
Comment: Velocity-area station with cableway and natural control. Net effect of abstractions and returns is minor. # Almost entirely basalt overlain by till (covering over 50% of the catchment). Significant upland areas, predominantly grassland or heath, limited afforestation. Extensive bogland in the north. Contains Ballymena (pop. 28,000) - substantial light industry, and Ranaldstown (pop. 4,000).		1987			758	94	16.93	287.3	21/10	2.76	28/05	32.8	11.91	3.58
		1988			925	115	20.59	179.6	19/01	1.11	23/06	43.8	15.15	1.74
		1989			660	82	14.75	168.5	28/10	1.21	23/07	31.9	10.24	1.53
		1990	1334											
204001	**Bush at Seneirl** C.A: 306.1 km²	**72..85**	*1079*		**723**		**7.02**	**645.6**	**28/11 1978**	**0.23**	**31/08 1983**	**14.4**	**3.86**	**0.79**
M.A: DOEN	Level: 25m Local Number:													
F.A.R: SPG	B.F.I: .43 Sensitivity:	1986	1221	113	705	98	6.84	63.3	04/12	1.07	14/07	17.4	3.86	1.15
Comment: Velocity-area station with cableway and natural control. # Predominantly various basalts with a major fault bisecting the catchment. Some schists in upper reaches with a little greensand. Contains the town of Ballymoney(pop. 6,000).		1987	989	92	648	90	6.29	78.8	21/10	1.60	08/07	12.5	4.22	2.18
		1988	1230	114	732	101	7.09	64.1	19/01	0.84	27/06	16.7	4.68	1.08
		1989	1033	96	531	73	5.15	53.1	28/10	0.48	01/08	11.3	3.27	0.79
		1990	1387	129	875	121	8.50	78.8	28/10	1.45	28/05			
205004	**Lagan at Newforge** C.A: 490.4 km²	**72-85**	*882*		**566**		**8.80**	**128.4**	**28/12 1978**	**0.22**	**04/08 1983**	**21.0**	**4.82**	**0.88**
M.A: DOEN	Level: 2m Local Number:													
F.A.R: GEI	B.F.I: .45 Sensitivity:	1986	970	110	647	114	10.06	112.2	15/04	1.06	13/10	23.4	5.63	1.47
Comment: Velocity-area station with cableway. Numerous PWS boreholes in the Sherwood Sandstone - pumping capacity total of approaching 30 Ml/d. All effluents return to the river. # Geology - 60% Silurian; remainder - Sherwood Sandstone with some breccia, Chalk, Hibernian Greensand and Lower Basalts. Heavily overlain with till and extensive sand and gravel deposits in lower reaches of river. Mainly arable - some upland heath. Urbanisation - Lisburn and south western areas of Belfast.		1987	852	97	548	97	8.52	114.7	22/10	1.19	01/06	18.4	5.10	1.68
		1988	1038	118	745	132	11.55	75.6	23/01	1.31	24/06	27.8	7.46	1.65
		1989	784	89	442	78	6.88	57.0	07/04	0.30	13/09	15.2	3.87	0.96
		1990	993	113	578	102	8.99	60.9	24/11	0.90	01/10			
205005	**Ravernet at Ravernet** C.A: 69.5 km²	**72-85**	**892**		**460**		**1.01**	**22.8**	**28/12 1978**	**0.00**	**04/09 1976**	**2.4**	**0.58**	**0.02**
M.A: DOEN	Level: 31m Local Number:													
F.A.R: N	B.F.I: .44 Sensitivity:	1986	992	111	489	106	1.08	19.8	15/04	0.04	13/10	2.8	0.51	0.05
Comment: Flat V weir installed autumn 1977, width 8.64m. Height of wing walls 2.1m. Theoretical rating applies up to bankfull; exceedence very unlikely. Previous to weir installation rating based on current meterings. Natural flow regime; significant storage in several loughs in the headwaters - their influence on the flow regime is partly counterbalanced by the minimal soil cover in many areas. # Geology: quartzite overlain with 'till and rock'. Predominantly a grassland catchment, some limited arable use.		1987	869	97	388	84	0.85	**24.1**	**21/10**	0.04	01/06	1.8	0.55	0.07
		1988	1086	122	574	125	1.26	15.0	23/01	0.04	25/06	3.3	0.65	0.07
		1989	794	89	303	66	0.67	10.3	02/04	0.00	24/07	1.5	0.27	0.02
		1990	1016	114	541	118	1.19	9.7	06/02	0.04	07/08			
205008	**Lagan at Drummiller** C.A: 85.2 km²	**74-85**	*1009*		**688**		**1.86**	**51.2**	**27/12 1978**	**0.01**	**24/08 1976**	**4.3**	**0.77**	**0.06**
M.A: DOEN	Level: 81m Local Number:													
F.A.R:	B.F.I: .34 Sensitivity:	1986			770	112	2.08	39.4	15/04	0.14	16/10	4.3	1.17	0.19
Comment: Velocity-area station with calibration by wading. No water abstractions or significant effluent returns. # Geology: entirely Silurian overlain with till. Predominantly upland heath rising to over 500m, some grassland used for sheep grazing. Contains one large village.		1987			619	90	1.67	40.1	21/10	0.21	25/05	3.5	0.85	0.29
		1988												
		1989			501	73	1.35	20.7	16/12	0.02	17/07	3.0	0.53	0.04
		1990	1083	107										
205010	**Lagan at Banoge** C.A: 189.8 km²	**74..85**			**455**		**2.74**	**206.3**	**28/12 1978**	**0.02**	**29/07 1984**	**5.9**	**0.80**	**0.03**
M.A: DOEN	Level: 39m Local Number:													
F.A.R: E	B.F.I: .22 Sensitivity:	1986												
Comment: Velocity-area station, once with cableway, but now calibrated by wading. No water abstractions. Dromore effluent returns to river. # Geology: entirely Silurian overlain with till. 35% upland heath rising to over 500 mOD; remainder agricultural grassland except for the town of Dromore (pop. 3,000).		1987			335	74	2.01	176.7	21/10	0.09	28/05	3.4	0.62	0.11
		1988			436	96	2.62	75.0	18/01	0.05	26/06	6.4	0.86	0.07
		1989			223	49	1.34	47.6	06/04	0.03	24/07	2.3	0.44	0.04
		1990	1009											

		Period	Rainfall (mm)	% of pre-1986	Runoff (mm)	% of pre-1986	Mean flow (m^3s^{-1})	Peak flow (m^3s^{-1})	Date of peak	Min. daily flow (m^3s^{-1})	Date of min.	10 Percentile (m^3s^{-1})	50 Percentile (m^3s^{-1})	95 Percentile (m^3s^{-1})
205020	**Erier at Comber** C.A: 59.8 km²	83-85			506		0.96	27.3	16/01 1984	0.03	26/07 1984	2.2	0.53	0.08
M.A: DOEN	Level: m Local Number:													
F.A.R: N	B.F.I: .46 Sensitivity:	1986			498	98	0.95	32.5	26/08	0.13	18/07	2.2	0.55	0.16
Comment: Flat V weir in trapezoidal channel containing the full range of flows. # Geology - 70% Llandovery, 20% Sherwood Sandstone, 5% Dolerite and Basalt, and 5% Magnesian Limestone. Predominantly rural with suburban development in the upper reaches.		1987			434	86	0.82	21.1	21/10	0.12	10/08	1.8	0.49	0.15
		1988												
		1989			319	63	0.61	14.6	16/12	0.06	23/07	1.2	0.35	0.07
		1990	975											
206002	**Jerretspass at Jerretspass** C.A: 41.6 km²	**72-85**			**521**		**0.69**	**12.4**	**03/10 1981**	**0.00**	**16/08 1983**	**1.8**	**0.31**	**0.01**
M.A: DOEN	Level: 11m Local Number:													
F.A.R: N	B.F.I: .40 Sensitivity:	1986			556	107	0.73	9.1	16/04	0.03	09/10	1.9	0.33	0.05
Comment: Velocity-area station calibrated by rods from footbridge. # Geology is Llandovery in age. Occassional igneous intrusions. Catchment is entirely rural.		1987			397	76	0.52	**16.4**	**22/10**	0.06	25/05	1.1	0.26	0.09
		1988			518	99	0.68	9.4	26/10	0.01	29/06	1.8	0.26	0.03
		1989			265	51	0.35	4.9	07/04	**0.00**	**24/07**	0.8	0.13	0.01
		1990	947		692	133	0.91	8.3	24/11	0.10	27/09			
236005	**Colebrooke at Ballindarragh Bridge** C.A: 309.1 km²	**75..85**			**655**		**6.42**	**88.8**	**10/02 1977**	**0.22**	**03/11 1982**	**15.9**	**3.25**	**0.65**
M.A: DOEN	Level: 53m Local Number:													
F.A.R: N	B.F.I: .38 Sensitivity:	1986												
Comment: Velocity-area station with cableway. # Geology: Old Red Sandstone in the headwaters, Carboniferous formations (limestone and sandstones) in the lower catchment. Land use is mainly agricultural/grazing with some afforestation in the south.		1987			639	98	6.27	**127.4**	**21/10**	0.99	28/05	13.8	3.22	1.17
		1988			911	139	8.90	95.3	19/01	0.89	28/06	21.3	5.93	1.09
		1989			627	96	6.15	76.4	11/04	0.61	18/07	15.2	3.40	0.72
		1990	1363		1287	196	12.61	130.4	25/01	0.87	17/06			
236007	**Sillees at Drumrainy Bridge** C.A: 167.6 km²	81-85			867		4.61	18.5	05/02 1984	0.05	14/08 1983	11.1	3.08	0.25
M.A: DOEN	Level: 44m Local Number:													
F.A.R: E	B.F.I: .53 Sensitivity:	1986			984	113	5.23	18.6	24/11	0.23	17/10	12.4	3.89	0.39
Comment: Velocity-area station - gauged from a bridge. Some natural storage provided by small lakes in the headwaters. # A mainly agricultural Catchment (appreciably forestry in the higher areas) developed on Carboniferous formations (mostly limestone and shales).		1987			666	77	3.54	19.5	21/10	0.36	28/05	8.0	2.64	0.67
		1988			952	110	5.04	21.5	09/02	0.24	29/06	12.4	3.33	0.44
		1989			669	77	3.56	16.9	27/10	0.01	06/08	8.2	2.21	0.05
		1990	1705											

Summary of Archived Data – 1

Gauged daily flows, monthly peaks and monthly rainfall

Stn. number	Gauged daily flows, monthly peaks and rainfall			
201002	70s	·eaaaaaeaa	80s	aaaAAAAAAA
	90s	E†		
201005	70s	·†EAAAAAAA	80s	AAAAAAAAAA
	90s	AA		
201006	70s	--eaaaaAAA	80s	AAAAAAAAAA
	90s	E†		
201007	70s	†††††EAEAA	80s	AAAAAAAAAA
	90s	A†		
201008	70s	------aaaa	80s	aaaAAAAAAA
	90s	A†		
201009	80s	eaaaaaAAAA	90s	E†
201010	80s	--eaaaAAAA	90s	E†
202001	80s	·eaaeeaAAA	90s	E†
202002	70s	------eaea	80s	aaaaaaAAAA
	90s	E†		
203010	60s	·††††††††	70s	EAAAAAAAAA
	80s	AAAAAAAAAA	90s	AA
203011	70s	eaaaaaaaaa	80s	e--†††----
	90s	††		
203012	70s	eaaaaaaaaa	80s	aaaAAAAAAA
	90s	D†		
203013	70s	eaaaaaaaaa	80s	aaaaaaAAAA
	90s	††		
203017	70s	eAAAAAAAAA	80s	AAAAaAAAAA
	90s	E†		

Stn. number	Gauged daily flows, monthly peaks and rainfall			
203018	70s	eaaaaaaAAA	80s	AAAAAAAAAA
	90s	E†		
203019	70s	--eaaaaaae	80s	aaaaaaAAAA
	90s	E†		
203020	70s	·eaaaaaaaa	80s	aaaAAAAAAA
	90s	D†		
203021	70s	·eaaaaaaaa	80s	aaaAAAAAAA
	90s	E†		
203023	70s	--aaaaaaae	80s	eaeaaeeaaa
	90s	e		
203024	70s	·eaaaaaaaa	80s	eaaaaaAAAA
	90s	E†		
203025	70s	·eaaaaaaaa	80s	aaaAAAAAAA
	90s	E†		
203026	70s	·eaeeaaaaa	80s	aaaaaaAAAA
	90s	E†		
203027	70s	·†EAAAAAAA	80s	AAAAAAAAEA
	90s	E†		
203028	70s	·†EAAAAAAA	80s	AAAAAAAAAA
	90s	AA		
203029	70s	---eaaaaaa	80s	aaaaaaAAAA
	90s	E†		
203033	70s	-----eaaaa	80s	aAaAAEAAAE
	90s	E†		
203038	80s	---eeeEAAA	90s	E†
203040	80s	eaeaaeAAAA	90s	E†
203042	80s	·eaaaaAAAA	90s	E†
203092	80s	---eaaaaaa		

Stn. number	Gauged daily flows, monthly peaks and rainfall			
203093	80s	---aaaaaa	90s	††
204001	70s	--eaaaaeaa	80s	aaaAAAAAAA
	90s	††		
205003	70s	·cbaaaaaaa	80s	aaaaa-----
	90s	††		
205004	70s	--eaaaaaaa	80s	aaaAAAAAAA
	90s	††		
205005	70s	--EAAAAAAA	80s	AAAAAAAAAA
	90s	††		
205006	70s	--eaaaaaaa	80s	a---------
	90s	††		
205008	70s	----eaaaaa	80s	aaaAAAaaea
	90s	††		
205010	70s	----eaeaaa	80s	aaaaaaeaaa
	90s	††		
205020	80s	---eaaaaea	90s	E†
206001	70s	------aaaa	80s	a------
	90s	††		
206002	70s	--aaaaaaaa	80s	aaaaaaaaaa
	90s	††		
236005	70s	-----eae--	80s	·eaaaaeaaa
	90s	E†		
236007	80s	·eaaaaaaaa	90s	††

Gauged daily flows, monthly peaks and monthly rainfall

KEY:

	Complete rainfall	Incomplete or missing rainfall
Complete daily and complete peaks	A	a
Complete daily and partial peaks	B	b
Complete daily and no peaks	C	c
Partial daily and complete peaks	D	d
Partial daily and partial peaks	E	e
Partial daily and no peaks	F	f
No flow data	†	-

Up-to-date Summaries of Archived Data are available on request from the National Water Archive Office.

GROUNDWATER - REGISTER AND STATISTICS

Background

Groundwater may be obtained from almost any stratum in the sedimentary succession in the United Kingdom, as well as from metamorphic and igneous rocks. In those strata not generally recognised as aquifers, well yields tend to be small (of the order of a few cubic metres per day). In the more important aquifers, such as the Chalk and the Permo-Triassic sandstones, well yields of the order of 3000 to 4000 cubic metres per day are not unusual.

The groundwater resources of an aquifer, upon which the long-term yield of wells depend, are replenished naturally by rainfall. The normal recharge takes place during the winter months when the potential evapotranspiration is low and the soil moisture deficits are negligible. Accordingly, groundwater levels tend to rise from autumn through winter into spring. During the summer months, the potential evapotranspiration generally exceeds the rainfall, soil moisture deficits are built up, and little infiltration, if any, takes place. Consequently, groundwater levels tend to fall from spring through summer into autumn. This pattern is not, however, constant, since rainfall varies seasonally, while the distribution of rainfall from month to month and from area to area is equally variable. Infiltration is also affected by the nature of any deposits through which water must pass to reach the saturated zone of an aquifer, and where these deposits have low permeabilities there will be a consequent reduction in the amount of replenishment and an increase in the time before water levels begin to rise. The fluctuation of water levels within an aquifer will be affected not only by the amount of infiltration but also by the value of the specific yield (which is the volume of the voids in the rock which may store usable groundwater expressed as a fraction of the total volume of rock); where the specific yield is small, the addition of a given volume of water will result in a greater rise in water levels than would be the case where the specific yield is larger and the capacity for storage greater. Finally, where the natural drainage of groundwater (appearing as springs, seepage lines or 'risings') is rapid, water levels rise more slowly during recharge periods because significantly large quantities are simultaneously being discharged.

The Observation Well Network

Groundwater level observation wells (in this context, a well includes both shafts - constructed by hand-digging - and boreholes - constructed by machinery) are generally used for one of two purposes, either to monitor levels regionally and thus to estimate groundwater resource fluctuations, or to monitor the local effects of groundwater abstractions. The number of observation wells required in different areas for regional monitoring varies widely. Over the last two decades or so, a target density was sought of one well to 25 to 35 km^2. During the last few years, it has become apparent in some districts that satisfactory information can be obtained with fewer wells, while in others the densities may need to be increased substantially.

The observation well network was reviewed in 1981 by the British Geological Survey (then the Institute of Geological Sciences) with the aim of selecting 200 to 300 sites from the National Groundwater Archive (then maintained by the Dept. of the Environment), to be used for periodical assessment of the national groundwater situation[1]. The selection was based upon the hydrogeological units identified in an investigation of the groundwater resources of the United Kingdom[2]; one site was to be chosen for each aquifer present within each unit. For Scotland and Northern Ireland this was not possible due to the very limited number of observation wells available. In England and Wales, the total number of wells finally selected was 175.

Since that date, a number of changes have been made to the list of selected wells. At some locations, observations could no longer be continued, and new sites have been added from time to time. Up-to-date lists of the sites in the national network are published in each Yearbook in the Hydrological Data UK series.

Measurement and Recording of Groundwater Levels

The majority of observation wells are still measured manually either weekly or monthly. The usual instrument is an electric probe suspended upon a graduated cable or tape, contact being made by the water to complete a circuit which gives either a visual or an audible signal at the surface. Measurements are normally made to the nearest 10 millimetres.

Some observation wells are equipped with continuous water level recorders or data loggers, almost invariably actuated by a float on the water surface (a few sites use pressure transducers). These recorders may be driven by clockwork or by electrical power, and are capable of running unattended for periods of one to six months. Levels are usually recorded on paper charts, punched paper tapes or magnetic tapes. The required level of accuracy is to the nearest 10 millimetres, although the instruments may individually be accurate to 1 millimetre. The introduction of telemetry whereby the measuring instruments are

interrogated periodically through telephone lines from a central office (thus avoiding the necessity of field visits) is being seriously considered for general use so as to facilitate a more rapid recovery of data.

Some wells are, or have been, seriously affected by pumping to the point where no useful estimates of the annual natural fluctuations can be made. Such sites are of questionable value as observation wells save possibly for the monitoring of pumping wells, and even then the availability of unaffected control wells can be advantageous. Where the aquifer is confined, and the site is located at some distance from the outcrop, the seasonal fluctuation may be so small as to be undetectable. Where the seasonal fluctuations are very small, it is not unusual for the well hydrograph to be affected by changes in atmospheric pressure; where the measurement of levels through the year is at weekly or shorter intervals, it is usually possible to eliminate the atmospheric effects by constructing a smoothed curve through the plotted data points.

Scope of the Register and Statistical Tabulations

Groundwater data are presented in two parts. The first provides a register of reference details relating to the individual well alongside a statistical summary of the fluctuations over the featured period. In the second part, these data are used to assess recharge and groundwater resource changes for the major aquifers in the United Kingdom over the period 1986–90.

The sites listed in the well register were selected so as to give a reasonably representative cover throughout England and Wales, together with some sites in Scotland and Northern Ireland where there are, as yet, very few observation wells. The sites are grouped according to the aquifers to which the water level variations are attributed. A generalised list of aquifers is given in Table 1; while the aquifers are tabulated in stratigraphical order, the local names for individual strata are mostly omitted, and the intervening aquicludes are not shown. The location of the wells featured in the register, and the outcrop areas of the main aquifers, are shown in Figure 1.

WELL REGISTER AND STATISTICS

The following explanatory notes will assist in the interpretation of particular items in the tabular material.

Well Number

The well numbering system is based upon the National Grid. Each 100 kilometre square is designated by prefix letters (e.g. SE; a complete set of prefix letters for the United Kingdom is shown on the Frontispiece) and is divided into 100 lesser squares of 10 kilometre sides numbered from 00 to 99. Thus a site whose number is given as SE94005 is located within the 10 kilometre square SE94, while the following digits indicate that it is the fifth accessed in that square. A suffix such as A or B defines a particular well when there are several at the same site.

Site

The location name, e.g. Dalton Holme, is used for convenient reference, being perhaps more easily memorised than the well number.

Hydrometric Area – HA

The Hydrometric Area is either an integral river catchment having one or more outlets to the sea or tidal estuary, or, for convenience, it may include several contiguous river catchments having topographical similarity with separate tidal outlets – see regional maps at the start of Surface Water – Register and Statistics components.

Grid Reference – NGR

The National Grid Reference comprises a six or eight figure number that locates a site precisely with the 100 kilometre square indicated by the prefix letters. A brief summary of the use of grid references may be found in the legend of the standard Ordnance Survey 1:50 000 sheets or in the Ordnance Survey gazetteers.

Measuring Authority – M.A.

The measuring authority refers to the body that is responsible for taking readings at the particular site. In England and Wales, this is normally the appropriate regional office of the National Rivers Authority.

EEC Unit

The United Kingdom is divided into areas for each of which the responsibility for water management is the concern of bodies such as the regional offices of the National Rivers Authority and the River Purification Boards. Each of these areas is subdivided into Units (EEC Units) which are defined in a report[2] prepared for the European Economic Community.

TABLE 1 GENERALISED LIST OF AQUIFERS IN THE UNITED KINGDOM

Era	System	Subsystem	Aquifer	Importance
CAINOZOIC	Quaternary	Holocene	Superficial deposits	*
	Tertiary	Pleistocene	Upper and Middle Pleistocene	*
			Crag	**
		Pliocene	Coralline Crag	**
		Oligocene		
		Eocene	Bagshot Beds	
			Lower London Tertiaries	
			Blackheath & Oldhaven Beds	
			Woolwich & Reading Beds	*
			Thanet Beds	**
MESOZOIC	Cretaceous	Upper Cretaceous	Chalk and Upper Greensand	****
		Lower Cretaceous	Lower Greensand	***
			Hastings Beds	**
	Jurassic	Upper Jurassic	Portland & Purbeck Beds	*
			(with Spilsby Sandstone)	(**)
			Corallian	**
		Middle Jurassic	Great & Inferior Oolitic limestones	**
			(with Lincolnshire Limestone)	(****)
		Lower Jurassic	Bridport & Yeovil Sands	**
			Marlstone Rock	*
UPPER PALAEOZOIC	Triassic	Keuper	Permo-Triassic sandstones	
		Bunter		****
	Permian	(sandstones)		
			Magnesian Limestone	***
	Carboniferous	Upper Carboniferous	Coal Measures	**
			Millstone Grit	**
		Lower Carboniferous	Carboniferous Limestone	**
	Devonian		Old Red Sandstone	*

Key to aquifer importance:
* aquifer of minor importance only
** aquifer producing small, but useful, local supplies
*** aquifer of local importance, often providing public supplies
**** aquifer of major importance

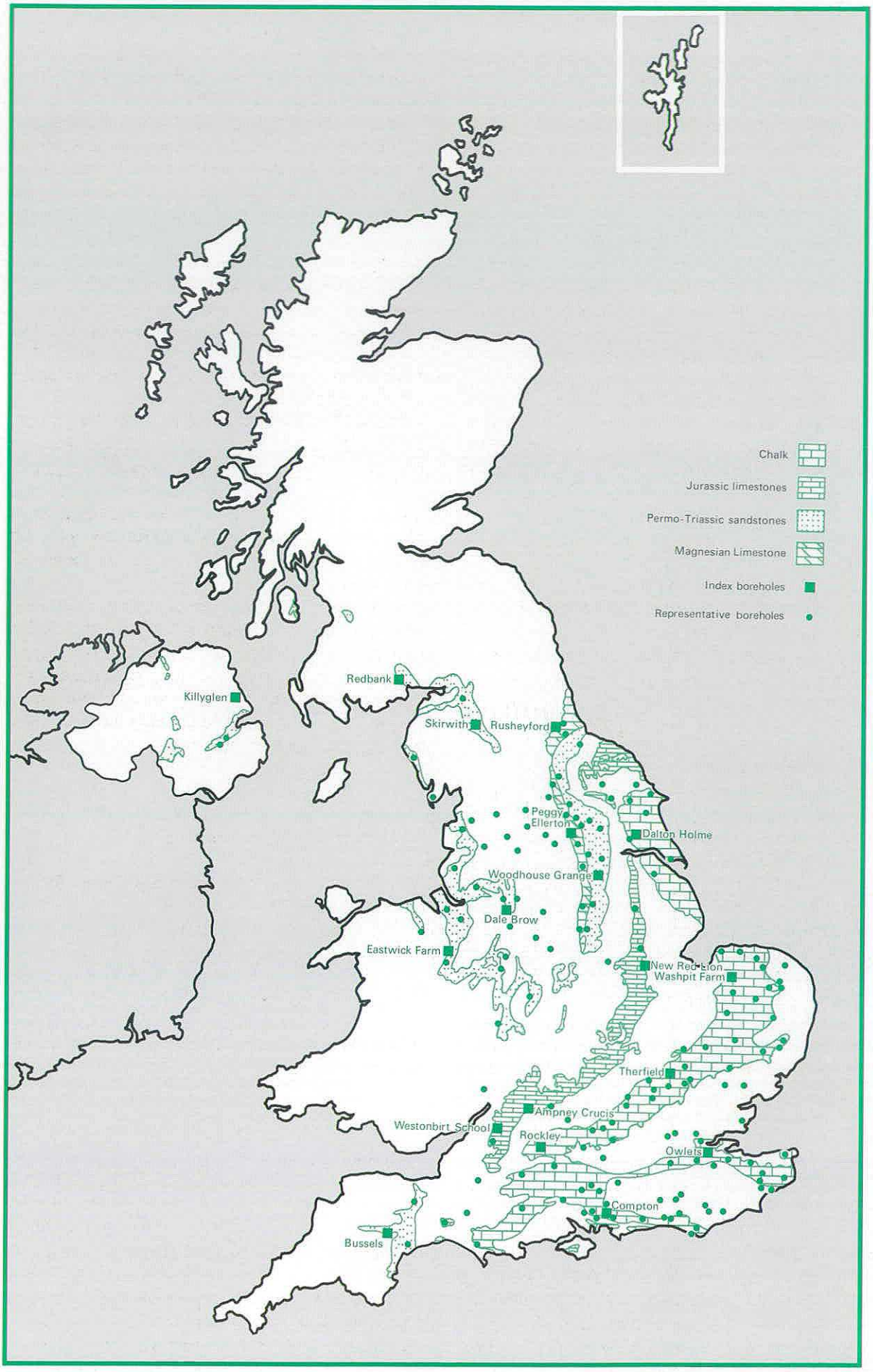


Figure 1. Principal aquifers and representative well locations

Measuring Level

The measuring level is the altitude of the point from which measurements are taken at a particular site, given in metres above Ordnance Datum.

Comment

A short commentary relating to important characteristics of the well and its associated record of groundwater levels; particular reference may be made to the effect of local or regional pumping on the water levels at the observation site. A lack of comment generally indicates a satisfactory observation well.

Certain sites are updated at frequent intervals, usually monthly, and these are used when an immediate assessment of the national groundwater situation is required; these are known as *index wells*.

Period

The period of record indicates the first year for which records are stored on the archive and the last year used in the analysis of data for the current volume. For various reasons, the full period of record may not have been used for statistical analysis.

Mean annual range

The difference between the level measured at the end of the summer recession of groundwater levels and that measured at the beginning of the summer recession of the following year reflects the amount of recharge received in that period. This method, detailed in the *Hydrometric Register and Statistics 1981–85* volume, is most suited to circumstances when a single peak is readily identifiable in each recharge season. Where recharge follows an uneven pattern resulting in poorly defined or multiple peaks, the percentage of the mean annual rise is often unrepresentative of the percentage of the mean annual recharge. Consequently, the original method has been modified to produce more realistic values and to allow more accurate comparison between sites. First, the recharge period has been arbitrarily defined as the first day of August to the last day of the following July. Next, the water level at each site is estimated, by extrapolation where necessary, for the last day of each month. Finally, all the rises in successive months are summed over each recharge period. The use of end-of-month levels was dictated to a large extent by the existence of end-of-month data only for the longest pre-1990 records. However, where some sites are measured at close time intervals (weekly or daily), the summed cumulative rises give a significantly larger total than the rise determined by end-of-month levels alone. To compare sites with differing intervals between measurements, it is thus necessary to resort to a common base.

The summed rise for each year is called the *annual fluctuation*, and the mean of the annual fluctuations over the period of record is termed the *mean annual range*. This is assumed to reflect the mean annual recharge over the same period. In turn, this also assumes that the natural discharge (via, for example, springs and seepages) is constant; while this is not the case in view of the large differences in head that are recorded in some observation wells, there is insufficient information currently available to permit corrective factors to be determined. It is thought that, for the majority of wells, the errors caused by this assumption will be small. However, in circumstances when, for example, substantial recharge occurs in the late spring and early summer but succeeds only in moderating the rate of seasonal decline in groundwater levels a significant underestimation of overall recharge may occur. It should also be noted that the annual fluctuation will not necessarily be the difference between the *trough* and *peak* levels (see below).

At some observation sites, levels have been seriously affected by pumping for part of the period of record. At other sites, data for some years may be suspect or missing. Consequently, the determination of the mean annual range may not always be made for the full period of record but only for those years where reliable data are available.

Maximum annual range

The largest annual fluctuation determined for the period of record.

Minimum annual range

The smallest annual fluctuation determined for the period of record.

1986–90 Data

Trough level

The groundwater level, in metres above (or below) Ordnance Datum, at the end of the summer recession. It is not unusual in some wells during recent years for the trough to be reached towards the end, or even beyond the end, of the calendar year.

Peak level

The groundwater level, in metres above (or below) Ordnance Datum, at the beginning of the summer recession. If no recharge takes place due to drought during the recharge months, the peak level would correspond to the highest level between the first day of August and the last day of the following July.

Fluctuation as % of the mean annual range

The cumulative end-of-month rises for that particular year expressed as a percentage of the mean annual range.

Areal Assessments of Recharge

As part of a comprehensive assessment of groundwater resources in the European Community a report was published on the groundwater resources of the United Kingdom[2]. In this, the country was divided areally into administrative provinces each of which was divided into Aquifer Units. The mean annual replenishment was assessed for each of these Units. If it is assumed that the percentage annual fluctuation in an observation well is a direct reflection of the percentage of the mean annual infiltration to the Aquifer Unit in which the well is located, then it is possible to estimate the actual replenishment to each aquifer or parts thereof. Such estimates are published, for the NRA regions, in the Yearbooks in the Hydrological data UK series. The estimates for the 1985/86 to 1989/90 period appear in Table 2. Given the nature of the data upon which the estimates are based, and limitations in the procedure for assessing recharge, the results should be used as a general guide only.

References

1. Monkhouse, R.A., and Murti, P.K. 1981. The Rationalisation of Groundwater Observation Well Networks in England and Wales. Institute of Geological Sciences, Open-file Report WD/81/1, 18pp.

2. Monkhouse, R.A., and Richards, H.J. 1982. Groundwater Resources of the United Kingdom. Prepared for the Commission of the European Communities, published by Th Schaeffer Druckerei GmbH, Hannover, 252pp.

TABLE 2 ANNUAL REPLENISHMENT TO THE MORE IMPORTANT AQUIFERS IN ENGLAND AND WALES OVER THE PERIOD 1986-90

NRA Region	Mean Annual Replenishment ($m^3 \times 10^6$)	1985–86	1986–87	1987–88	1988–89	1989–90
		Replenishment ($m^3 \times 10^6$)				
Chalk and Upper Greensand aquifer						
Anglian	953 (100)	693 (73)	930 (98)	1103 (116)	345 (36)	749 (79)
Southern	1231 (100)	1097 (89)	1100 (89)	1551 (126)	651 (53)	1606 (130)
South West	202 (100)	119 (59)	160 (79)	148 (73)	93 (46)	259 (128)
Thames	976 (100)	837 (86)	915 (94)	1157 (119)	483 (49)	1351 (138)
Wessex	947 (100)	980 (103)	879 (93)	1070 (113)	719 (76)	1102 (116)
Yorkshire	322 (100)	327 (102)	346 (107)	357 (111)	89 (28)	144 (45)
Totals	4631 (100)	4053 (88)	4330 (94)	5386 (116)	2380 (51)	5211 (113)
Lincolnshire Limestone aquifer						
Anglian	86 (100)	72 (84)	84 (98)	68 (79)	46 (53)	89 (103)
Permo-Triassic sandstone aquifers						
Northumbria	11 (100)	8 (72)	9 (80)	10 (91)	5 (44)	6 (55)
North West	331 (100)	332 (100)	336 (102)	378 (114)	149 (145)	386 (117)
Severn-Trent	528 (100)	484 (92)	554 (105)	509 (96)	297 (56)	539 (102)
South West	205 (100)	175 (85)	201 (98)	207 (101)	109 (53)	255 (124)
Welsh	27 (100)	20 (74)	23 (85)	34 (126)	14 (52)	28 (104)
Wessex	39 (100)	37 (95)	20 (51)	35 (90)	14 (36)	54 (138)
Yorkshire	301 (100)	354 (118)	247 (82)	372 (124)	117 (39)	262 (87)
Totals	1442 (100)	1410 (98)	1390 (96)	1545 (107)	705 (49)	1530 (106)
Magnesian Limestone aquifer						
Northumbria	80 (100)	91 (114)	72 (90)	65 (81)	52 (65)	37 (46)
Severn-Trent	40 (100)	45 (113)	47 (118)	34 (85)	15 (38)	39 (98)
Yorkshire	127 (100)	115 (91)	89 (70)	120 (94)	32 (25)	88 (69)
Totals	247 (100)	251 (102)	208 (84)	219 (89)	99 (40)	164 (66)

(Percentages of the annual mean in parentheses.)

Well Register and Statistics

Aquifer: Chalk and Upper Greensand

ID30001 Killyglen H.A: 205
NGR: ID 36630310 M.A: Geological Survey of NI
EEC Unit: NI06 Level: 140.0m AOD
Comment: Levels too erratic and period too short to be very meaningful.

Period		Trough level (m)	Peak level (m)	Fluctuations as a % of the mean range
Period: 1985–1990		1985–86	113.59	119.02	101
Mean annual range:	7.67m	1986–87	113.68	118.92	99
Maximun ann. range:	9.27m	1987–88	113.63	119.31	96
Minimum ann. range:	6.42m	1988–89	113.28	117.47	84
		1989–90	113.23	119.50	121

SE94005 Dalton Holme H.A: 26
NGR: SE 96514530 M.A: NRA Yorkshire
EEC Unit: YO32 Level: 33.5m AOD
Comment: Index well.

Period: 1889–1990		1985–86	12.36	20.33	125
Mean annual range:	6.25m	1986–87	12.14	21.54	139
Maximun ann. range:	11.42m	1987–88	13.42	21.92	128
Minimum ann. range:	0.35m	1988–89	11.35	15.45	43
		1989–90	10.73	14.57	59

SE95006 Wetwang H.A: 26
NGR: SE 95785939 M.A: NRA Yorkshire
EEC Unit: YO31 Level: 42.3m AOD
Comment:

Period: 1971–1990		1985–86	19.15	28.00	104
Mean annual range:	9.28m	1986–87	19.43	28.00	92
Maximun ann. range:	16.78m	1987–88	18.92	29.85	98
Minimum ann. range:	1.40m	1988–89	17.18	21.63	37
		1989–90	16.84	21.27	44

SE97031 Green Lane H.A: 26
NGR: SE 93457079 M.A: NRA Yorkshire
EEC Unit: YO30 Level: 93.0m AOD
Comment:

Period: 1971–1990		1985–86	58.41	71.40	114
Mean annual range:	11.31m	1986–87	57.55	70.34	104
Maximun ann. range:	20.90m	1987–88	57.96	72.85	122
Minimum ann. range:	1.21m	1988–89	56.94	62.83	24
		1989–90	54.45	59.35	39

SP90026 Champneys H.A: 39
NGR: SP 94700875 M.A: NRA Thames
EEC Unit: TH17 Level: 186.4m AOD
Comment:

Period: 1962–1990		1985–86	123.55	130.88	81
Mean annual range:	8.53m	1986–87	124.96	130.18	64
Maximun ann. range:	18.70m	1987–88	126.90	141.91	175
Minimum ann. range:	0.00m	1988–89	123.98	131.00	35
		1989–90	121.54	132.41	122

SP91059 Pitstone Green Farm H.A: 33
NGR: SP 93801570 M.A: NRA Anglian
EEC Unit: AN09 Level: 111.3m AOD
Comment: A shaft of only 4.6m depth; water levels vary in response to rainfall.

Period: 1970–1990		1985–86	109.14	109.54	91
Mean annual range:	0.54m	1986–87	109.44	110.04	106
Maximun ann. range:	0.93m	1987–88	109.30	109.61	134
Minimum ann. range:	0.01m	1988–89	109.28	109.61	78
		1989–90	109.03	109.54	75

ST30007 Lime Kiln Way H.A: 45
NGR: ST 37630667 M.A: NRA South West
EEC Unit: SW01 Level: 130.2m AOD
Comment: Index Well. Anomalous fluctuations sometimes observed.

Period: 1959–1990		1985–86	124.32	125.25	110
Mean annual range:	0.80m	1986–87	124.71	125.44	88
Maximun ann. range:	2.08m	1987–88	124.80	125.47	78
Minimum ann. range:	0.00m	1988–89	124.48	125.01	47
		1989–90	124.27	126.12	225

SU01005B West Woodyates Manor H.A: 43
NGR: SU 01601960 M.A: NRA Wessex
EEC Unit: WE04 Level: 110.9m AOD
Comment: Index well.

Period: 1942–1990		1985–86	73.55	101.65	102
Mean annual range:	25.89m	1986–87	74.72	102.98	121
Maximun ann. range:	35.03m	1987–88	71.18	103.11	107
Minimum ann. range:	4.66m	1988–89	71.29	94.80	87
		1989–90	69.20	107.10	116

SU17057 Rockley H.A: 39
NGR: SU 16557174 M.A: NRA Thames
EEC Unit: TH12 Level: 146.4m AOD
Comment: Index well. Bottom of well 128.8m AOD; known to go dry. New, deeper, well commissioned 1992.

Period: 1933–1990		1985–86	130.82	141.10	103
Mean annual range:	9.99m	1986–87	133.18	140.20	116
Maximun ann. range:	14.70m	1987–88	129.99	142.83	125
Minimum ann. range:	0.37m	1988–89	129.79	137.27	73
		1989–90	128.24	143.22	142

SU32003 Baileys Down Farm H.A: 42
NGR: SU 38172743 M.A: NRA Southern
EEC Unit: SO33 Level: 88.6m AOD
Comment: Missing data during part of period 1983–85.

Period: 1964–1990		1985–86	35.43	47.76	83
Mean annual range:	14.22m	1986–87	35.42	47.73	120
Maximun ann. range:	30.52m	1987–88	35.42	51.37	111
Minimum ann. range:	0.48m	1988–89	34.97	42.84	55
		1989–90	33.42	54.34	147

SU35014 Woodside H.A: 42
NGR: SU 33155645 M.A: NRA Southern
EEC Unit: SO34 Level: 135.1m AOD
Comment:

Period: 1959–1990		1985–86	10	11	
Mean annual range:	14.20m	1986–87	98.75	116.51	132
Maximun ann. range:	20.49m	1987–88	98.80	117.09	126
Minimum ann. range:	0.00m	1988–89	98.57	106.81	58
		1989–90	96.27	118.81	144

SU51010 Hill Place Farm H.A: 42
NGR: SU 58751655 M.A: NRA Southern
EEC Unit: SO30 Level: 80.8mm AOD
Comment:

Period: 1965–1990		1985–86	41.54	44.20	104
Mean annual range:	2.91m	1986–87	41.41	44.32	116
Maximun ann. range:	4.60m	1987–88	41.65	44.76	115
Minimum ann. range:	0.43m	1988–89	41.26	43.30	65
		1989–90	40.12	45.20	152

SU53094 Abbotstone H.A: 42
NGR: SU 55863498 M.A: NRA Southern
EEC Unit: SO31 Level: 94.0m AOD
Comment:

Period: 1976–1990		1985–86	65.47	66.08	99
Mean annual range:	0.71m	1986–87	65.52	66.06	92
Maximun ann. range:	1.31m	1987–88	65.46	66.25	112
Minimum ann. range:	0.32m	1988–89	65.31	65.93	75
		1989–90	65.19	66.69	185

SU57159 Calversleys Farm H.A: 39
NGR: SU 56287530 M.A: NRA Thames
EEC Unit: TH13 Level: 122.3m AOD
Comment: No data for 1984.

Period: 1974–1990		1985–86	68.64	72.90	78
Mean annual range:	5.39m	1986–87	68.34	73.80	99
Maximun ann. range:	9.72m	1987–88	68.98	76.54	138
Minimum ann. range:	0.00m	1988–89	67.51	70.14	27
		1989–90	65.95	73.29	131

SU61032 Chidden Farm H.A: 42
NGR: SU 65781775 M.A: NRA Southern
EEC Unit: SO29 Level: 104.6m AOD
Comment: No data for 1981.

Period: 1958–1990		1985–86	68.54	79.38	110
Mean annual range:	15.68m	1986–87	66.61	82.30	102
Maximun ann. range:	23.78m	1987–88	67.33	84.23	126
Minimum ann. range:	3.91m	1988–89	67.00	80.91	78
		1989–90	64.34	87.91	130

SU61046 — Hinton Manor Farm — H.A: 42
NGR: SU 68901532 — M.A: NRA Southern
EEC Unit: SO28 — Level: 141.3m AOD
Comment:

Period		Trough level (m)	Peak level (m)	Fluctuations as a % of the mean range
Period: 1952–1990		1985–86	37.25	49.42	86
Mean annual range:	13.99m	1986–87	36.87	51.95	121
Maximun ann. range:	25.73m	1987–88	38.43	59.23	131
Minimum ann. range:	0.18m	1988–89	36.30	42.33	41
		1989–90	34.26	55.12	128

SU64028 — Lower Wield Farm — H.A: 42
NGR: SU 63604049 — M.A: NRA Southern
EEC Unit: SO32 — Level: 158.9m AOD
Comment: No data for part of 1980–81.

Period		Trough level (m)	Peak level (m)	Fluctuations as a % of the mean range
Period: 1961–1990		1985–86	94.46	96.87	99
Mean annual range:	2.37m	1986–87	94.85	96.90	89
Maximun ann. range:	7.30m	1987–88	95.03	98.12	128
Minimum ann. range:	0.37m	1988–89	94.50	95.78	40
		1989–90	91.54	97.09	228

SU68049 — Well Place Farm — H.A: 39
NGR: SU 64428525 — M.A: NRA Thames
EEC Unit: TH14 — Level: 90.5m AOD
Comment:

Period		Trough level (m)	Peak level (m)	Fluctuations as a % of the mean range
Period: 1976–1990		1985–86	65.32	70.38	94
Mean annual range:	5.07m	1986–87	65.47	70.73	101
Maximun ann. range:	12.31m	1987–88	67.23	72.73	104
Minimum ann. range:	2.37m	1988–89	63.24	69.59	56
		1989–90	58.09	70.76	243

SU71023 — Compton House — H.A: 41
NGR: SU 77551490 — M.A: NRA Southern
EEC Unit: SO27 — Level: 81.4m AOD
Comment: Index well.

Period		Trough level (m)	Peak level (m)	Fluctuations as a % of the mean range
Period: 1894–1990		1985–86	32.00	53.97	107
Mean annual range:	21.24m	1986–87	32.29	55.44	123
Maximun ann. range:	37.83m	1987–88	31.21	62.48	145
Minimum ann. range:	0.45m	1988–89	30.38	44.27	60
		1989–90	28.24	58.92	139

SU73008 — Faringdon Station — H.A: 39
NGR: SU 70483491 — M.A: NRA Thames
EEC Unit: TH21 — Level: 120.6m AOD
Comment: Data incomplete for 1986.

Period		Trough level (m)	Peak level (m)	Fluctuations as a % of the mean range
Period: 1966–1990		1985–86	95.79	110.75	104
Mean annual range:	14.20m	1986–87	95.18	108.58	114
Maximun ann. range:	21.86m	1987–88	95.43	113.28	117
Minimum ann. range:	2.10m	1988–89	95.32	105.18	68
		1989–90	92.87	114.68	151

SU76046 — Riseley Mill — H.A: 39
NGR: SU 73676251 — M.A: NRA Thames
EEC Unit: TH18 — Level: 52.0m AOD
Comment: Well hydrograph shows occasional and irregular fluctuations.

Period		Trough level (m)	Peak level (m)	Fluctuations as a % of the mean range
Period: 1975–1990		1985–86	34.50	35.67	69
Mean annual range:	1.94m	1986–87	35.45	37.83	140
Maximun ann. range:	7.82m	1987–88	36.67	38.27	81
Minimum ann. range:	0.03m	1988–89	35.67	37.42	21
		1989–90	30.79	34.91	187

SU78045A — Stonor Park — H.A: 39
NGR: SU 74198924 — M.A: NRA Thames
EEC Unit: TH15 — Level: 120.0m AOD
Comment:

Period		Trough level (m)	Peak level (m)	Fluctuations as a % of the mean range
Period: 1961–1990		1985–86	71.28	79.52	101
Mean annual range:	7.78m	1986–87	73.72	82.63	109
Maximun ann. range:	17.72m	1987–88	76.34	85.24	110
Minimum ann. range:	0.00m	1988–89	70.49	79.97	44
		1989–90	64.86	76.43	148

SU81001 — Chilgrove House — H.A: 41
NGR: SU 83561440 — M.A: NRA Southern
EEC Unit: SO27 — Level: 77.2m AOD
Comment: The longest continuous record of groundwater levels in the United Kingdom.

Period		Trough level (m)	Peak level (m)	Fluctuations as a % of the mean range
Period: 1836–1990		1985–86	41.17	69.86	118
Mean annual range:	25.57m	1986–87	38.48	70.09	149
Maximun ann. range:	47.32m	1987–88	38.60	75.22	125
Minimum ann. range:	0.93m	1988–89	38.27	53.20	72
		1989–90	33.80	73.84	145

SU87001 — Farm Cottage, Coldharbour — H.A: 39
NGR: SU 83367885 — M.A: NRA Thames
EEC Unit: TH19 — Level: 51.0m AOD
Comment: Formerly known as "Folly Cottage". Groundwater levels measured only four times a year.

Period		Trough level (m)	Peak level (m)	Fluctuations as a % of the mean range
Period: 1950–1990		1985–86	31.09	37.14	99
Mean annual range:	5.58m	1986–87	30.79	36.16	92
Maximun ann. range:	11.15m	1987–88	31.04	37.89	106
Minimum ann. range:	0.37m	1988–89	30.84	34.29	61
		1989–90	29.81	40.31	181

SU89007 — Piddington — H.A: 39
NGR: SU 81039417 — M.A: NRA Thames
EEC Unit: TH16 — Level: 111.3m AOD
Comment: Incomplete data in 1981–82.

Period		Trough level (m)	Peak level (m)	Fluctuations as a % of the mean range
Period: 1966–1990		1985–86	97.11	102.28	153
Mean annual range:	4.11m	1986–87	97.32	100.91	85
Maximun ann. range:	11.50m	1987–88	98.60	104.15	134
Minimum ann. range:	0.00m	1988–89	96.29	100.35	49
		1989–90	94.96	100.98	140

SY68034 — Ashton Farm — H.A: 44
NGR: SY 66158805 — M.A: NRA Wessex
EEC Unit: — Level: 72.2m AOD
Comment: Index well.

Period		Trough level (m)	Peak level (m)	Fluctuations as a % of the mean range
Period: 1974–1990		1985–86	64.55	70.63	113
Mean annual range:	5.60m	1986–87	65.25	70.84	92
Maximun ann. range:	7.48m	1987–88	64.38	70.80	110
Minimum ann. range:	1.17m	1988–89	64.65	69.79	83
		1989–90	63.67	70.90	128

TA06016 — Nafferton Pumping Station — H.A: 26
NGR: TA 04906120 — M.A: NRA Yorkshire
EEC Unit: YO31 — Level: 80.0m AOD
Comment:

Period		Trough level (m)	Peak level (m)	Fluctuations as a % of the mean range
Period: 1964–1990		1985–86	18.07	23.03	104
Mean annual range:	5.09m	1986–87	17.96	23.30	95
Maximun ann. range:	12.41m	1987–88	18.25	23.31	95
Minimum ann. range:	1.22m	1988–89	17.86	18.92	24
		1989–90	16.52	18.72	42

TA07028 — Hunmanby Hall — H.A: 27
NGR: TA 09407740 — M.A: NRA Yorkshire
EEC Unit: YO27 — Level: 79.7m AOD
Comment:

Period		Trough level (m)	Peak level (m)	Fluctuations as a % of the mean range
Period: 1976–1990		1985–86	30.45	36.35	104
Mean annual range:	5.57m	1986–87	30.78	36.05	87
Maximun ann. range:	13.53m	1987–88	31.20	37.04	103
Minimum ann. range:	0.00m	1988–89	27.04	33.09	0
		1989–90	24.21	27.02	33

TA10040 — Little Brocklesby — H.A: 29
NGR: TA 13710888 — M.A: NRA Anglian
EEC Unit: AN01 — Level: 44.3m AOD
Comment: Index well.

Period		Trough level (m)	Peak level (m)	Fluctuations as a % of the mean range
Period: 1926–1990		1985–86	9.32	17.97	145
Mean annual range:	6.40m	1986–87	10.14	19.37	139
Maximun ann. range:	15.59m	1987–88	11.21	18.96	115
Minimum ann. range:	0.03m	1988–89	8.04	13.13	40
		1989–90	5.77	9.74	59

TA21014 — Church Farm — H.A: 26
NGR: TA 26701890 — M.A: NRA Yorkshire
EEC Unit: YO33 — Level: 3.0m AOD
Comment:

Period		Trough level (m)	Peak level (m)	Fluctuations as a % of the mean range
Period: 1971–1990		1985–86	1.02	1.81	160
Mean annual range:	0.65m	1986–87	0.98	1.55	86
Maximun ann. range:	1.10m	1987–88	0.99	1.89	143
Minimum ann. range:	0.21m	1988–89	0.95	1.20	37
		1989–90	0.81	1.11	41

TF72011 — Off Farm — H.A: 33
NGR: TF 77102330 — M.A: NRA Anglian
EEC Unit: AN18 — Level: 83.8m AOD
Comment: Incomplete data for 1981–82.

Period		Trough level (m)	Peak level (m)	Fluctuations as a % of the mean range
Period: 1971–1990		1985–86	28.68	34.69	123
Mean annual range:	4.78m	1986–87	27.88	34.60	139
Maximun ann. range:	14.05m	1987–88	30.98	39.59	178
Minimum ann. range:	0.00m	1988–89	28.52	29.57	47
		1989–90	26.42	30.54	85

TF73010 Moor Farm H.A: 33
NGR: TF 76903290 M.A: NRA Anglian
EEC Unit: AN15 Level: 52.5m AOD
Comment: No apparent recharge in 1988–89

Period		Trough level (m)	Peak level (m)	Fluctuations as a % of the mean range
Period: 1977–1990		1985–86	43.51	45.87	93
Mean annual range:	2.31m	1986–87	43.41	45.82	102
Maximun ann. range:	6.17m	1987–88	44.68	47.86	135
Minimum ann. range:	0.00m	1988–89	41.68		0
		1989–90	38.88	41.26	85

TF80033 Houghton Common H.A: 33
NGR: TF 87300526 M.A: NRA Anglian
EEC Unit: AN15 Level: 70.1m AOD
Comment: Data probably not reliable through period of record.

Period		Trough level (m)	Peak level (m)	Fluctuations as a % of the mean range
Period: 1971–1990		1985–86	33.78	35.54	65
Mean annual range:	2.90m	1986–87	33.65	35.72	70
Maximun ann. range:	9.86m	1987–88	35.09	37.61	87
Minimum ann. range:	0.62m	1988–89	33.37	35.25	47
		1989–90	33.28	36.05	83

TF81002 Washpit Farm H.A: 33
NGR: TF 81381960 M.A: NRA Anglian
EEC Unit: AN17 Level: 80.7m AOD
Comment: Index well.

Period		Trough level (m)	Peak level (m)	Fluctuations as a % of the mean range
Period: 1950–1990		1985–86	43.50	45.83	80
Mean annual range:	2.89m	1986–87	42.93	45.90	100
Maximun ann. range:	6.97m	1987–88	44.63	49.90	181
Minimum ann. range:	0.00m	1988–89	43.67	46.95	7
		1989–90	41.98	43.49	51

TF83001 South Creake School H.A: 34
NGR: TF 85783606 M.A: NRA Anglian
EEC Unit: AN20 Level: 23.4m AOD
Comment: No apparent recharge in 1988–89.

Period		Trough level (m)	Peak level (m)	Fluctuations as a % of the mean range
Period: 1952–1990		1985–86	20.08	21.75	93
Mean annual range:	1.77m	1986–87	19.81	21.75	109
Maximun ann. range:	4.84m	1987–88	20.89	22.94	116
Minimum ann. range:	0.00m	1988–89	19.11	21.29	0
		1989–90	18.10	19.61	76

TF92005 Tower Hills Pumping Station H.A: 34
NGR: TF 98693606 M.A: NRA Anglian
EEC Unit: AN28 Level: 46.4m AOD
Comment:

Period		Trough level (m)	Peak level (m)	Fluctuations as a % of the mean range
Period: 1974–1990		1985–86	24.84	25.84	97
Mean annual range:	1.27m	1986–87	24.62	25.70	81
Maximun ann. range:	2.82m	1987–88	24.82	27.02	222
Minimum ann. range:	0.24m	1988–89	24.95	25.15	19
		1989–90	24.20	24.80	60

TG00092 High Elm Farm H.A: 33
NGR: TG 04400020 M.A: NRA Anglian
EEC Unit: AN30 Level: 59.9m AOD
Comment:

Period		Trough level (m)	Peak level (m)	Fluctuations as a % of the mean range
Period: 1971–1990		1985–86	48.01	53.42	135
Mean annual range:	4.61m	1986–87	48.92	53.30	119
Maximun ann. range:	11.08m	1987–88	51.37	55.87	96
Minimum ann. range:	1.13m	1988–89	47.41	49.17	37
		1989–90	46.46	49.26	56

TG03025B The Hall, Brinton H.A: 34
NGR: TG 03823583 M.A: NRA Anglian
EEC Unit: AN22 Level: 43.2m AOD
Comment:

Period		Trough level (m)	Peak level (m)	Fluctuations as a % of the mean range
Period: 1952–1990		1985–86	41.51	43.07	140
Mean annual range:	1.14m	1986–87	41.30	42.91	131
Maximun ann. range:	3.96m	1987–88	42.27	43.42	83
Minimum ann. range:	0.17m	1988–89	42.04	42.20	15
		1989–90	41.55	42.57	86

TG11005 The Spinney, Costessy H.A: 34
NGR: TG 16911101 M.A: NRA Anglian
EEC Unit: AN29 Level: 17.9m AOD
Comment: Data for 1981–82 and 1984–85 doubtful and may be affected by pumping.

Period		Trough level (m)	Peak level (m)	Fluctuations as a % of the mean range
Period: 1952–1990		1985–86	9.10	9.82	66
Mean annual range:	1.09m	1986–87	8.98	9.97	88
Maximun ann. range:	2.05m	1987–88	9.43	10.88	158
Minimum ann. range:	0.18m	1988–89	9.31	9.54	18
		1989–90	8.78	9.75	75

TG12007 Heydon Pumping Station H.A: 34
NGR: TG 11262722 M.A: NRA Anglian
EEC Unit: AN24 Level: 45.0m AOD
Comment: No apparent recharge in 1988–89.

Period		Trough level (m)	Peak level (m)	Fluctuations as a % of the mean range
Period: 1974–1990		1985–86	41.35	41.92	80
Mean annual range:	0.78m	1986–87	41.20	41.86	81
Maximun ann. range:	1.80m	1987–88	41.68	42.57	120
Minimum ann. range:	0.00m	1988–89	40.84	41.90	0
		1989–90	40.53	41.02	61

TG21009 Frettenham Depot H.A: 34
NGR: TG 24001657 M.A: NRA Anglian
EEC Unit: AN25 Level: 7.3m AOD
Comment:

Period		Trough level (m)	Peak level (m)	Fluctuations as a % of the mean range
Period: 1952–1990		1985–86	4.39	5.12	59
Mean annual range:	1.08m	1986–87	4.19	5.25	95
Maximun ann. range:	2.12m	1987–88	4.79	5.96	105
Minimum ann. range:	0.25m	1988–89	4.46	5.36	72
		1989–90	4.51	5.64	85

TG21010 Grange Farm H.A: 34
NGR: TG 26991140 M.A: NRA Anglian
EEC Unit: AN32 Level: 35.0m AOD
Comment: Well hydrograph shows occasional irregular fluctuations.

Period		Trough level (m)	Peak level (m)	Fluctuations as a % of the mean range
Period: 1952–1990		1985–86	18.11	18.28	46
Mean annual range:	0.41m	1986–87	17.88	18.03	27
Maximun ann. range:	1.43m	1987–88	17.89	18.36	202
Minimum ann. range:	0.00m	1988–89	18.22	18.49	32
		1989–90	17.84	18.22	17

TG23021 Melbourne House H.A: 34
NGR: TG 29323101 M.A: NRA Anglian
EEC Unit: AN26 Level: 21.8m AOD
Comment: Incomplete data for 1981–82.

Period		Trough level (m)	Peak level (m)	Fluctuations as a % of the mean range
Period: 1974–1990		1985–86	17.60	17.94	79
Mean annual range:	0.42m	1986–87	17.52	18.03	114
Maximun ann. range:	1.06m	1987–88	17.84	18.30	100
Minimum ann. range:	0.06m	1988–89	17.44	17.97	33
		1989–90	12.72	17.46	31

TG31020 Woodbastwick Hall H.A: 34
NGR: TG 33651606 M.A: NRA Anglian
EEC Unit: AN27 Level: 3.0m AOD
Comment:

Period		Trough level (m)	Peak level (m)	Fluctuations as a % of the mean range
Period: 1974–1990		1985–86	0.57	0.86	79
Mean annual range:	0.29m	1986–87	0.57	0.84	116
Maximun ann. range:	0.51m	1987–88	0.81	1.02	154
Minimum ann. range:	0.11m	1988–89	0.62	0.89	38
		1989–90	0.52	0.84	65

TG32016 Brumstead Hall H.A: 34
NGR: TG 37002682 M.A: NRA Anglian
EEC Unit: AN26 Level: 7.6m AOD
Comment:

Period		Trough level (m)	Peak level (m)	Fluctuations as a % of the mean range
Period: 1978–1990		1985–86	1.08	1.59	103
Mean annual range:	0.48m	1986–87	1.08	1.59	97
Maximun ann. range:	0.94m	1987–88	1.33	2.09	155
Minimum ann. range:	0.11m	1988–89	0.93	1.52	41
		1989–90	0.74	1.08	52

TL11004 Mackereye End House H.A: 38
NGR: TL 15601555 M.A: NRA Thames
EEC Unit: TH01 Level: 121.6m AOD
Comment:

Period		Trough level (m)	Peak level (m)	Fluctuations as a % of the mean range
Period: 1963–1990		1985–86	83.39	84.05	92
Mean annual range:	0.70m	1986–87	83.39	83.90	114
Maximun ann. range:	1.36m	1987–88	83.63	84.81	166
Minimum ann. range:	0.16m	1988–89	83.57	83.96	54
		1989–90	83.32	84.29	135

TL11009 The Holt H.A: 38
NGR: TL 16921965 M.A: NRA Thames
EEC Unit: TH02 Level: 140.2m AOD
Comment: Index well.

Period		Trough level (m)	Peak level (m)	Fluctuations as a % of the mean range
Period: 1964–1990		1985–86	86.17	87.99	84
Mean annual range:	2.13m	1986–87	86.59	87.85	39
Maximun ann. range:	5.57m	1987–88	86.81	91.97	241
Minimum ann. range:	0.00m	1988–89	87.11	89.98	28
		1989–90	85.95	88.57	117

TL13024 — **West Hitchin** — H.A: 33 — M.A: NRA Anglian
NGR: TL 12003026
EEC Unit: AN10 — Level: 82.3m AOD
Comment: Well hydrograph shows occasional sharp and irregular fluctuations.

Period	Mean annual range	Maximun ann. range	Minimum ann. range	Trough level (m)	Peak level (m)	Fluctuations as a % of the mean range
1970-1990	1.35m	2.89m	0.00m	1985-86	73.83	74.96	101
				1986-87	74.11	74.96	63
				1987-88	74.04	75.63	213
				1988-89	74.20	74.51	21
				1989-90	73.62	76.03	188
1964-1990	2.06m	4.42m	0.00m	1985-86	69.97	73.36	134
				1986-87	71.20	72.23	100
				1987-88	71.88	75.30	119
				1988-89	71.80	73.24	38
				1989-90	71.86	73.69	83
1883-1990	5.60m	16.13m	0.00m	1985-86	77.79	82.96	89
				1986-87	78.32	82.43	70
				1987-88	79.74	94.40	254
				1988-89	82.36	88.62	51
				1989-90	77.74	84.65	94
1964-1990	2.78m	7.33m	0.00m	1985-86	71.08	73.37	76
				1986-87	71.14	73.88	99
				1987-88	73.32	77.49	147
				1988-89	73.51	75.74	25
				1989-90	71.78	74.42	91
1964-1990	2.65m	9.43m	0.00m	1985-86	69.53	71.66	76
				1986-87	69.32	71.47	81
				1987-88	70.66	74.14	138
				1988-89	70.52	71.53	23
				1989-90	69.17	71.44	84
1963-1990	8.24m	17.1m	0.0m	1985-86	37.67	43.51	71
				1986-87	36.59	43.81	75
				1987-88			
				1988-89			
				1989-90	35.6	46.62	123
1983-1990	4.44m	8.44m	1.86m	1985-86	18.15	21.69	65
				1986-87	16.87	21.66	102
				1987-88	19.72	28.86	190
				1988-89	17.12	20.97	42
				1989-90	13.32	17.35	90
1968-90	1.45m	6.74m	0.00m	1985-86	26.03	26.64	33
				1986-87	24.26	26.15	2
				1987-88	24.43	24.74	17
				1988-89	23.88	24.72	36
				1989-90	21.29	24.58	221
1963-1990	1.27m	2.35m	0.00m	1985-86	25.95	26.62	55
				1986-87	25.79	27.58	164
				1987-88	27.06	29.17	149
				1988-89	26.25	27.07	49
				1989-90	25.81	26.95	85
1969-1990	2.62m	6.29m	0.00m	1985-86	32.74	34.33	29
				1986-87	32.10	34.41	101
				1987-88	33.97	38.03	154
				1988-89	33.28	35.18	60
				1989-90	31.95	39.10	240
1971-1990	2.76m	5.17m	0.10m	1985-86	8.22	10.89	56
				1986-87	7.43	10.96	126
				1987-88	10.70	13.74	104
				1988-89	8.80	10.77	41
				1989-90	6.62	9.20	91
1961-1990	2.85m	6.73m	0.00m	1985-86	-3.51	1.60	236
				1986-87	-1.18	0.64	116
				1987-88	0.72	2.97	148
				1988-89	0.12	2.83	122
				1989-90	0.21	3.00	97
1968-1990	0.57m	2.81m	0.08m	1985-86	22.75	26.67	494
				1986-87	25.28	25.77	83
				1987-88	25.60	26.21	141
				1988-89	25.49	26.03	58
				1989-90	24.99	25.52	30
1952-1990	1.38m	3.18m	0.05m	1985-86	22.98	24.38	95
				1986-87	22.62	24.30	116
				1987-88	23.56	25.73	153
				1988-89	22.23	24.30	58
				1989-90	18.38	23.63	95
1974-1990	0.77m	1.59m	0.13m	1985-86	23.01	23.61	78
				1986-87	23.00	23.68	88
				1987-88	23.50	24.26	112
				1988-89	23.32	23.81	22
				1989-90	22.44	23.11	17
1974-1990	0.42m	0.78m	0.04m	1985-86	26.71	27.08	118
				1986-87	26.35	27.10	185
				1987-88	27.00	27.32	144
				1988-89	26.92	27.12	70
				1989-90	26.75	26.90	10

TL22010 — **Box Hall** — H.A: 38 — M.A: NRA Thames
NGR: TL 29782433
EEC Unit: TH03 — Level: 123.4m AOD
Comment:

TL33004 — **Therfield Rectory** — H.A: 38 — M.A: NRA Thames
NGR: TL 33303720
EEC Unit: TH04 — Level: 154.8m AOD
Comment: Index well.

TL42006 — **Hixham Hall** — H.A: 38 — M.A: NRA Thames
NGR: TL 45362676
EEC Unit: TH05 — Level: 111.3m AOD
Comment:

TL42008 — **Berden Hall** — H.A: 38 — M.A: NRA Thames
NGR: TL 46692955
EEC Unit: TH06 — Level: 107.9m AOD
Comment:

TL44012 — **Redlands Hall, Ickleton** — H.A: 33 — M.A: NRA Anglian
NGR: TL 45224182
EEC Unit: AN12 — Level: 76.2m AOD
Comment: Index well. Data incomplete for 1988-89.

TL55109 — **Lower Farm** — H.A: 33 — M.A: NRA Anglian
NGR: TL 59255605
EEC Unit: AN12 — Level: 57.7m AOD
Comment:

TL72054 — **Rectory Road** — H.A: 37 — M.A: NRA Anglian
NGR: TL 79822516
EEC Unit: AN46 — Level: 67.1m AOD
Comment: Site affected by regional changes in water level which mask the natural fluctuations in some years.

TL84006 — **Smeetham Hall Cottages** — H.A: 36 — M.A: NRA Anglian
NGR: TL 84654106
EEC Unit: AN44 — Level: 54.7m AOD
Comment:

TL86110 — **Cattishall Farm** — H.A: 33 — M.A: NRA Anglian
NGR: TL 88506470
EEC Unit: AN13 — Level: 61.6m AOD
Comment:

TL89037 — **Grimes Graves** — H.A: 33 — M.A: NRA Anglian
NGR: TL 81319001
EEC Unit: AN15 — Level: 17.0m AOD
Comment:

TL92001 — **Lexden Pumping Station** — H.A: 37 — M.A: NRA Anglian
NGR: TL 96572562
EEC Unit: AN45 — Level: 15.0m AOD
Comment: Groundwater levels sometimes affected by pumping, masking the natural fluctuations.

TM15112 — **Dial Farm** — H.A: 35 — M.A: NRA Anglian
NGR: TM 12015618
EEC Unit: AN43 — Level: 64.6m AOD
Comment: Possible pumping effects tend to mask natural fluctuations.

TM17001 — **Billingford House** — H.A: 34 — M.A: NRA Anglian
NGR: TM 16717903
EEC Unit: AN33 — Level: 25.8m AOD
Comment:

TM26046 — **Fairfields** — H.A: 35 — M.A: NRA Anglian
NGR: TM 24616109
EEC Unit: AN34 — Level: 45.0m AOD
Comment: Index well.

TM26095 — **Strawberry Hill** — H.A: 35 — M.A: NRA Anglian
NGR: TM 27866397
EEC Unit: AN39 — Level: 48.5m AOD
Comment:

TQ01133 **Chantry Post** H.A: 41
NGR: TQ 08501170 M.A: NRA Southern
EEC Unit: SO24 Level: 166.2m AOD
Comment: Data incomplete for 1986.

		Period	Trough level (m)	Peak level (m)	Fluctuations as a % of the mean range
Period: 1977–1990		1985–86	97.58	105.27	79
Mean annual range:	14.02m	1986–87	94.88	105.50	85
Maximun ann. range:	22.73m	1987–88	94.88	116.55	141
Minimum ann. range:	10.32m	1988–89	93.56	104.24	74
		1989–90	92.75	109.58	94

TQ21011 **Old Rectory, Pyecombe** H.A: 41
NGR: TQ 28501289 M.A: NRA Southern
EEC Unit: SO23 Level: 106.4m AOD
Comment: Dubious data available from 1881 to 1983.

		Period	Trough level (m)	Peak level (m)	Fluctuations as a % of the mean range
Period: 1958–1990		1985–86	68.68	74.33	129
Mean annual range:	3.44m	1986–87	71.28	73.25	74
Maximun ann. range:	9.13m	1987–88	71.63	76.54	128
Minimum ann. range:	0.42m	1988–89	71.55	72.02	12
		1989–90	71.10	72.86	187

TQ28119B **Trafalgar Square** H.A: 39
NGR: TQ 29968051 M.A: NRA Thames
EEC Unit: TH20 Level: 12.6m AOD
Comment: Groundwater levels rising steadily; annual ranges cannot be determined. No data for December 1986 to May 1987.

		Period	Trough level (m)	Peak level (m)	Fluctuations as a % of the mean range
Period: 1901–1990		1985–86	-61.92	-60.94	
Mean annual range:	m	1986–87	-60.98	-59.34	
Maximun ann. range:	m	1987–88	-59.40	-57.98	
Minimum ann. range:	m	1988–89	-58.68	-56.42	
		1989–90	-56.40	-54.16	

TQ31050 **North Bottom** H.A: 41
NGR: TQ 32201180 M.A: NRA Southern
EEC Unit: SO22 Level: 120.1m AOD
Comment:

		Period	Trough level (m)	Peak level (m)	Fluctuations as a % of the mean range
Period: 1979–1990		1985–86	68.80	82.45	87
Mean annual range:	17.02m	1986–87	66.74	89.49	143
Maximun ann. range:	24.38m	1987–88	69.68	89.71	114
Minimum ann. range:	7.98m	1988–89	67.04	76.15	53
		1989–90	63.69	84.22	105

TQ35005 **Rose & Crown Inn, Riddlesdown** H.A: 39
NGR: TQ 33635924 M.A: NRA Thames
EEC Unit: TH22 Level: 88.1m AOD
Comment: No data for 1981–82, data incomplete for 1984–85.

		Period	Trough level (m)	Peak level (m)	Fluctuations as a % of the mean range
Period: 1876–1990		1985–86	76.07	84.93	80
Mean annual range:	10.31m	1986–87	75.54	83.22	69
Maximun ann. range:	23.43m	1987–88	78.93	86.60	70
Minimum ann. range:	0.00m	1988–89	64.09	79.67	110
		1989–90	62.05	81.85	183

TQ38009 **Hackney Public Baths** H.A: 38
NGR: TQ 35098536 M.A: NRA Thames
EEC Unit: TH07 Level: 18.4m AOD
Comment: Groundwater levels rising steadily; annual ranges cannot be determined.

		Period	Trough level (m)	Peak level (m)	Fluctuations as a % of the mean range
Period: 1953–1990		1985–86	-26.01	-25.69	
Mean annual range:	m	1986–87	-25.75	-25.55	
Maximun ann. range:	m	1987–88	-25.70	-25.44	
Minimum ann. range:	m	1988–89	-25.41	-25.11	
		1989–90	-25.22	-24.92	

TQ50007 **Old Rectory, Fulkington** H.A: 41
NGR: TQ 55920380 M.A: NRA Southern
EEC Unit: SO20 Level: 66.0m AOD
Comment: Incomplete data, particularly in early years.

		Period	Trough level (m)	Peak level (m)	Fluctuations as a % of the mean range
Period: 1965–1990		1985–86	30.71	40.33	147
Mean annual range:	5.49m	1986–87	30.91	39.09	128
Maximun ann. range:	13.09m	1987–88	31.86	43.46	238
Minimum ann. range:	0.00m	1988–89	30.96	36.31	91
		1989–90	29.87	36.92	156

TQ56019 **West Kingsdown** H.A: 40
NGR: TQ 56486124 M.A: NRA Thames
EEC Unit: TH23 Level: 130.0m AOD
Comment: No data for 1985.

		Period	Trough level (m)	Peak level (m)	Fluctuations as a % of the mean range
Period: 1961–1990		1985–86	83.52	86.24	67
Mean annual range:	3.19m	1986–87	83.81	86.44	77
Maximun ann. range:	11.71m	1987–88	84.58	96.90	367
Minimum ann. range:	0.08m	1988–89	83.00	85.22	67
		1989–90	82.75	85.58	86

TQ57118 **Thurrock A13** H.A: 37
NGR: TQ 58807943 M.A: NRA Anglian
EEC Unit: AN48 Level: 21.5m AOD
Comment: Incomplete data for 1989–90.

		Period	Trough level (m)	Peak level (m)	Fluctuations as a % of the mean range
Period: 1979–1990		1985–86	-1.90	-0.42	116
Mean annual range:	1.27m	1986–87	-1.75	0.03	120
Maximun ann. range:	2.16m	1987–88	-0.47	0.97	118
Minimum ann. range:	0.19m	1988–89	-1.42	-0.23	15
		1989–90	-2.74	-1.06	139

TQ58002B **Bush Pit Farm** H.A: 37
NGR: TQ 56228408 M.A: NRA Thames
EEC Unit: TH08 Level: 21.3m AOD
Comment:

		Period	Trough level (m)	Peak level (m)	Fluctuations as a % of the mean range
Period: 1967–1990		1985–86	-16.2	-15.8	5
Mean annual range:	0.58m	1986–87	-16.10	-15.38	120
Maximun ann. range:	1.07m	1987–88	-15.45	-14.77	151
Minimum ann. range:	0.00m	1988–89	-14.81	-14.56	146
		1989–90	-14.73	-14.30	127

TQ86044 **Little Pett Farm** H.A: 40
NGR: TQ 85956092 M.A: NRA Southern
EEC Unit: SO07 Level: 78.3m AOD
Comment: Groundwater level fell continuously through June 1988 to February 1990.

		Period	Trough level (m)	Peak level (m)	Fluctuations as a % of the mean range
Period: 1982–1990		1985–86	27.65	32.24	99
Mean annual range:	4.47m	1986–87	25.45	32.63	155
Maximun ann. range:	8.22m	1987–88	28.22	36.92	184
Minimum ann. range:	0.00m	1988–89	25.80	34.92	
		1989–90	22.33	25.67	74

TQ99011 **Burnham-on-Crouch** H.A: 37
NGR: TQ 94709710 M.A: NRA Anglian
EEC Unit: AN47 Level: 15.3m AOD
Comment:

		Period	Trough level (m)	Peak level (m)	Fluctuations as a % of the mean range
Period: 1975–1990		1985–86	-23.73	-22.98	83
Mean annual range:	0.91m	1986–87	-22.95	-22.13	91
Maximun ann. range:	1.33m	1987–88	-22.13	-21.45	79
Minimum ann. range:	0.45m	1988–89	-21.39	-20.82	66
		1989–90	-20.84	-20.37	49

TR14009 **Little Bucket Farm** H.A: 40
NGR: TR 12254690 M.A: NRA Southern
EEC Unit: SO10 Level: 87.3m AOD
Comment: Index well.

		Period	Trough level (m)	Peak level (m)	Fluctuations as a % of the mean range
Period: 1971–1990		1985–86	61.07	75.61	116
Mean annual range:	11.75m	1986–87	63.01	72.57	71
Maximun ann. range:	26.73m	1987–88	68.16	86.87	158
Minimum ann. range:	1.38m	1988–89	59.67	73.64	38
		1989–90	57.64	68.15	88

TR14050 **Glebe Cottage** H.A: 40
NGR: TR 12654167 M.A: NRA Southern
EEC Unit: SO11 Level: 107.9m AOD
Comment: Incomplete data from 1985 to 1988.

		Period	Trough level (m)	Peak level (m)	Fluctuations as a % of the mean range
Period: 1970–1990		1985–86			
Mean annual range:	2.79m	1986–87			
Maximun ann. range:	11.27m	1987–88			
Minimum ann. range:	0.23m	1988–89			
		1989–90	92.76	95.48	8

TR35049 **Cross Manor Cottages** H.A: 40
NGR: TR 33305090 M.A: NRA Southern
EEC Unit: SO12 Level: 19.6m AOD
Comment: Incomplete data 1985 to 1990.

		Period	Trough level (m)	Peak level (m)	Fluctuations as a % of the mean range
Period: 1971–1990		1985–86			
Mean annual range:	1.72m	1986–87			
Maximun ann. range:	4.02m	1987–88			
Minimum ann. range:	0.05m	1988–89			
		1989–90			

TR36062 **Alland Grange** H.A: 40
NGR: TR 32086634 M.A: NRA Southern
EEC Unit: SO13 Level: 40.9m AOD
Comment:

		Period	Trough level (m)	Peak level (m)	Fluctuations as a % of the mean range
Period: 1969–1990		1985–86	2.39	3.84	82
Mean annual range:	1.66m	1986–87	2.44	3.48	54
Maximun ann. range:	4.32m	1987–88	3.16	6.07	182
Minimum ann. range:	0.35m	1988–89	3.10	3.79	23
		1989–90	2.42	3.98	93

					Period	Trough level (m)	Peak level (m)	Fluctuations as a % of the mean range
TV59007C	**West Dean No 3**	H.A: 41						
NGR: TV 52909920		M.A: NRA Southern	**Period:** 1940-1990		1985-86	1.18	2.77	115
EEC Unit: SO19	Level: 12.9m AOD		Mean annual range:	1.39m	1986-87	1.18	2.71	109
Comment: Index well.			Maximun ann. range:	4.33m	1987-88	1.43	5.03	312
			Minimum ann. range:	0.00m	1988-89	1.18	1.57	25
					1989-90	1.16	2.78	119

Aquifer: Lower Greensand

SU82057	**Madams Farm**	H.A: 41						
NGR: SU 88882505		M.A: NRA Southern	**Period:** 1984-1990		1985-86	107.69	107.83	33
EEC Unit: SO26	Level: 143.6m AOD		Mean annual range:	0.61m	1986-87	106.69	108.09	209
Comment: Incomplete data 1985-86 and 1988-89.			Maximun ann. range:	1.27m	1987-88	106.68	107.96	199
			Minimum ann. range:	0.17m	1988-89			
					1989-90	107.53	107.87	66
SU84008A	**Tilford Pumping Station**	H.A: 39						
NGR: SU 87164087		M.A: NRA Thames	**Period:** 1971-1990		1985-86	55.07	55.68	69
EEC Unit: TH21	Level: 67.9m AOD		Mean annual range:	0.69m	1986-87	55.08	55.75	116
Comment:			Maximun ann. range:	1.52m	1987-88	55.61	57.00	220
			Minimum ann. range:	0.10m	1988-89	54.93	56.20	14
					1989-90			178
TL45019	**River Farm**	H.A: 33						
NGR: TL 41105204		M.A: NRA Anglian	**Period:** 1973-1990		1985-86	8.14	9.02	62
EEC Unit: AN12	Level: 13.6m AOD		Mean annual range:	1.15m	1986-87	8.19	9.03	74
Comment:			Maximun ann. range:	1.78m	1987-88	7.79	9.67	154
			Minimum ann. range:	0.58m	1988-89	8.78	9.90	93
					1989-90	7.93	9.82	152
TQ41082	**Lower Barn Cottage**	H.A: 41						
NGR: TQ 43701320		M.A: NRA Southern	**Period:** 1975-1990		1985-86	10.75	11.87	159
EEC Unit: SO21	Level: 18.0m AOD		Mean annual range:	0.70m	1986-87	10.84	11.41	112
Comment:			Maximun ann. range:	1.39m	1987-88	10.87	12.27	199
			Minimum ann. range:	0.04m	1988-89	10.28	11.26	33
					1989-90	10.17	11.12	113
TR13021	**Ashley House**	H.A: 40						
NGR: TR 11323881		M.A: NRA Southern	**Period:** 1972-1990		1985-86			
EEC Unit: SO11	Level: 82.1m AOD		Mean annual range:	3.18m	1986-87			
Comment: Incomplete data through 1985 to 1988.			Maximun ann. range:	7.86m	1987-88			
			Minimum ann. range:	0.00m	1988-89	72.99	76.13	85
					1989-90	72.30	76.70	112
TR23032	**Morehall Depot**	H.A: 40						
NGR: TR 20753650		M.A: NRA Southern	**Period:** 1972-1990		1985-86			
EEC Unit: SO15	Level: 51.2m AOD		Mean annual range:	0.46m	1986-87			
Comment: Incomplete data through 1985 to 1988.			Maximun ann. range:	1.88m	1987-88			
			Minimum ann. range:	0.00m	1988-89			
					1989-90	39.82	40.14	67

Aquifer: Hastings Beds

TQ22001	**The Bungalow, Lower Beeding**	H.A: 41						
NGR: TQ 23482770		M.A: NRA Southern	**Period:** 1984-1990		1985-86			
EEC Unit: SO25	Level: 89.8m AOD		Mean annual range:	1.21m	1986-87			
Comment: Incomplete data for 1985 and 1986.			Maximun ann. range:	2.42m	1987-88	88.11	89.77	124
			Minimum ann. range:	0.07m	1988-89	87.27	88.98	125
					1989-90	86.70	89.21	200
TQ42080A	**Kingstanding**	H.A: 40						
NGR: TQ 47252990		M.A: NRA Southern	**Period:** 1979-1990		1985-86			12
EEC Unit: SO04	Level: 203.3m AOD		Mean annual range:	5.13m	1986-87			113
Comment: Incomplete data through 1985 to 1989; fluctuation percentages necessarily approximate.			Maximun ann. range:	9.12m	1987-88			73
			Minimum ann. range:	0.64m	1988-89			85
					1989-90			143
TQ61044	**Dallington Herrings Farm**	H.A: 41						
NGR: TQ 66581803		M.A: NRA Southern	**Period:** 1964-1990		1985-86	114.57	118.17	105
EEC Unit: SO18	Level: 119.5m AOD		Mean annual range:	2.26m	1986-87	114.57	118.07	194
Comment:			Maximun ann. range:	4.39m	1987-88	116.05	118.57	96
			Minimum ann. range:	0.65m	1988-89	115.77	118.67	122
					1989-90	115.20	117.97	118
TQ62099	**Whiteoaks**	H.A: 40						
NGR: TQ 61992282		M.A: NRA Southern	**Period:** 1978-1990		1985-86			38
EEC Unit: SO17	Level: 155.0m AOD		Mean annual range:	1.88m	1986-87			2
Comment: Incomplete data through 1985 to 1990; fluctuation percentages necessarily approximate and inaccurate.			Maximun ann. range:	5.17m	1987-88			55
			Minimum ann. range:	0.04m	1988-89			81
					1989-90			84
TQ71123	**Red House**	H.A: 40						
NGR: TQ 79691659		M.A: NRA Southern	**Period:** 1974-1990		1985-86			82
EEC Unit: SO16	Level: 40.0m AOD		Mean annual range:	3.43m	1986-87			71
Comment: Incomplete data through 1985 to 1988.			Maximun ann. range:	4.97m	1987-88			88
			Minimum ann. range:	1.45m	1988-89	14.56	18.10	88
					1989-90	14.22	19.17	124

Aquifer: Upper Jurassic

SE68016	**Kirkbymoorside**	H.A: 27						
NGR: SE 68908590		M.A: NRA Yorkshire	**Period:** 1975-1990		1985-86	38.09	40.05	111
EEC Unit: YO25	Level: 46.0m AOD		Mean annual range:	2.42m	1986-87	37.84	40.07	110
Comment:			Maximun ann. range:	3.92m	1987-88	37.98	40.56	162
			Minimum ann. range:	1.03m	1988-89	37.83	39.04	43
					1989-90	37.78	38.73	46

				Period	Trough level (m)	Peak level (m)	Fluctuations as a % of the mean range
SE77076	**Broughton**	H.A: 27					
NGR: SE 76907300		M.A: NRA Yorkshire	**Period:** 1975–1990	1985–86	16.47	18.86	88
EEC Unit: YO25	Level: 35.5m AOD		Mean annual range: 3.51m	1986–87	16.17	19.18	88
Comment:			Maximun ann. range: 5.65m	1987–88	16.75	20.50	103
			Minimum ann. range: 1.20m	1988–89	16.14	17.74	34
				1989–90	15.59	17.90	66
SE98008	**Seavegate Farm, East Ayton**	H.A: 27					
NGR: SE 99108540		M.A: NRA Yorkshire	**Period:** 1971–1990	1985–86	30.95	34.35	121
EEC Unit: YO27	Level: 59.0m AOD		Mean annual range: 3.54m	1986–87	30.35	33.75	96
Comment:			Maximun ann. range: 5.88m	1987–88	30.70	34.16	82
			Minimum ann. range: 2.08m	1988–89	30.21	32.94	62
				1989–90	29.60	32.27	111
SU49040B	**East Hanney**	H.A: 39					
NGR: SU 41179307		M.A: NRA Thames	**Period:** 1978–1990	1985–86	58.43	59.60	260
EEC Unit: TH11	Level: 63.1m AOD		Mean annual range: 0.47m	1986–87	59.15	59.62	95
Comment: Records fragmentary before 1983; mean annual range probably in error.			Maximun ann. range: 1.23m	1987–88	59.20	59.69	100
			Minimum ann. range: 0.04m	1988–89	59.20	59.52	53
				1989–90	59.05	59.60	110

Aquifer: Middle Jurassic

				Period	Trough level (m)	Peak level (m)	Fluctuations as a % of the mean range
SP00062	**Ampney Crucis**	H.A: 39					
NGR: SP 05950190		M.A: NRA Thames	**Period:** 1958–1990	1985–86	100.24	102.79	93
EEC Unit: TH09	Level: 109.7m AOD		Mean annual range: 3.65m	1986–87	99.74	102.81	79
Comment: Index well.			Maximun ann. range: 6.23m	1987–88	99.80	102.81	85
			Minimum ann. range: 0.98m	1988–89	99.99	102.27	75
				1989–90	99.46	103.03	99
SP20113	**Alvescot Road**	H.A: 39					
NGR: SP 27210634		M.A: NRA Thames	**Period:** 1983–1990	1985–86	82.18	84.31	52
EEC Unit: TH09	Level: 86.4m AOD		Mean annual range: 4.15m	1986–87	82.29	84.96	80
Comment:			Maximun ann. range: 7.52m	1987–88	81.26	84.99	77
			Minimum ann. range: 2.16m	1988–89	76.19	84.83	181
				1989–90	82.04	86.31	102
ST51057	**Over Compton**	H.A: 52					
NGR: ST 59311691		M.A: NRA Wessex	**Period:** 1971–1990	1985–86	55.40	58.29	87
EEC Unit: WE06	Level: 67.1m AOD		Mean annual range: 2.78m	1986–87	56.11	59.18	101
Comment:			Maximun ann. range: 4.35m	1987–88	56.01	59.22	117
			Minimum ann. range: 0.58m	1988–89	55.95	58.36	84
				1989–90	55.74	59.68	139
ST88062A	**Didmarton No 1**	H.A: 53					
NGR: ST 82758743		M.A: NRA Wessex	**Period:** 1977–1990	1985–86	83.08	91.41	47
EEC Unit: WE07	Level: 113.8m AOD		Mean annual range: 18.35m	1986–87	75.00	89.40	75
Comment: No data for June and July 1989.			Maximun ann. range: 31.88m	1987–88	71.77	91.83	174
			Minimum ann. range: 8.55m	1988–89	77.70	87.46	51
				1989–90	63.53	90.11	130

Aquifer: Lincolnshire Limestone

				Period	Trough level (m)	Peak level (m)	Fluctuations as a % of the mean range
SK97025	**Grange de Lings**	H.A: 30					
NGR: SK 98007817		M.A: NRA Anglian	**Period:** 1975–1990	1985–86	39.29	42.01	91
EEC Unit: AN01	Level: 48.3m AOD		Mean annual range: 3.44m	1986–87	38.86	42.29	116
Comment:			Maximun ann. range: 4.95m	1987–88	40.04	42.24	108
			Minimum ann. range: 2.25m	1988–89	39.55	41.88	66
				1989–90	39.02	42.35	87
TF03037	**New Red Lion**	H.A: 30					
NGR: TF 08853034		M.A: NRA Anglian	**Period:** 1964–1990	1985–86	10.35	17.73	99
EEC Unit: AN03	Level: 33.8m AOD		Mean annual range: 8.24m	1986–87	10.10	17.70	87
Comment: Index well.			Maximun ann. range: 19.31m	1987–88	11.62	19.96	96
			Minimum ann. range: 0.00m	1988–89	9.47	14.16	59
				1989–90	7.04	16.37	109
TF04014	**Silk Willoughby**	H.A: 30					
NGR: TF 04294273		M.A: NRA Anglian	**Period:** 1972–1990	1985–86	13.74	18.69	85
EEC Unit: AN02	Level: 34.5m AOD		Mean annual range: 6.13m	1986–87	13.25	18.83	90
Comment:			Maximun ann. range: 16.57m	1987–88	14.69	20.18	83
			Minimum ann. range: 0.00m	1988–89	12.90	16.22	48
				1989–90	10.77	18.55	116

Aquifer: Permo-Triassic sandstones

				Period	Trough level (m)	Peak level (m)	Fluctuations as a % of the mean range
IJ26001	**Dunmurry**	H.A: 205					
NGR: IJ 29076943		M.A: Department of the Environment (NI)	**Period:** 1985–1990	1985–86	27.85	29.21	103
EEC Unit: NI06	Level: 32.0m AOD		Mean annual range: 1.62m	1986–87	27.85	28.87	92
Comment: Index well. Less than 10 years of data available.			Maximun ann. range: 2.08m	1987–88	28.07	29.28	128
			Minimum ann. range: 1.06m	1988–89	27.56	29.45	65
				1989–90	27.47	28.79	111
NX97001	**Redbank**	H.A: 79					
NGR: NX 96677432		M.A: Dumfries and Galloway	**Period:** 1981–1990	1985–86	4.39	5.30	153
EEC Unit: SC14	Level: 10.0m AOD		Mean annual range: 1.05m	1986–87	4.32	5.64	130
Comment: Index well. No data recorded during 1989.			Maximun ann. range: 1.61m	1987–88	4.49	5.56	109
			Minimum ann. range: 0.50m	1988–89			
				1989–90			
NY00328	**Brownbank Layby**	H.A: 74					
NGR: NY 05110247		M.A: NRA North West	**Period:** 1974–1990	1985–86			
EEC Unit: NW17	Level: 30.5m AOD		Mean annual range: 0.54m	1986–87			
Comment: Incomplete data through 1986 to 1988.			Maximun ann. range: 1.42m	1987–88	24.84	25.55	131
			Minimum ann. range: 0.00m	1988–89	25.00	25.29	54
				1989–90	24.12	24.69	155

NY63002 Skirwith H.A: 76
NGR: NY 61303250 M.A: NRA North West
EEC Unit: NW20 Level: 133.2m AOD
Comment: Incomplete data through 1986 to 1987.

		Period	Trough level (m)	Peak level (m)	Fluctuations as a % of the mean range
Period: 1978–1990		1985–86	129.94	130.74	91
Mean annual range:	0.85m	1986–87			
Maximun ann. range:	1.49m	1987–88			
Minimum ann. range:	0.49m	1988–89			
		1989–90	129.44	131.00	148

NZ41034 Northern Dairies H.A: 25
NGR: NZ 48611835 M.A: NRA Northumbria
EEC Unit: NR10 Level: 9.1m AOD
Comment: Well hydrograph tends to be very irregular.

Period: 1974–1990		1985–86	-0.46	-0.13	50
Mean annual range:	0.66m	1986–87	-0.41	-0.02	50
Maximun ann. range:	1.39m	1987–88	-0.45	0.06	70
Minimum ann. range:	0.33m	1988–89	-0.53	-0.13	72
		1989–90			

SD27008 Furness Abbey H.A: 74
NGR: SD 21727171 M.A: NRA North West
EEC Unit: NW16 Level: 20.2m AOD
Comment: No data for 1986. Incomplete data through 1987 to 1989.

Period: 1972–1990		1985–86			
Mean annual range:	3.24m	1986–87			
Maximun ann. range:	4.87m	1987–88			
Minimum ann. range:	2.05m	1988–89			
		1989–90	13	13.77	

SD41032 Yew Tree Farm H.A: 70
NGR: SD 44001164 M.A: NRA North West
EEC Unit: NW10 Level: 23.4m AOD
Comment: No data for 1986. Incomplete data through 1987 to 1989.

Period: 1972–1990		1985–86			
Mean annual range:	0.48m	1986–87			
Maximun ann. range:	1.22m	1987–88			
Minimum ann. range:	0.05m	1988–89			
		1989–90	13.11	13.77	94

SD44015 Moss Edge Farm H.A: 72
NGR: SD 43964928 M.A: NRA North West
EEC Unit: NW13 Level: 5.2m AOD
Comment: Long-term fluctuations tend to mask annual variations.

Period: 1961–1990		1985–86	4.16	4.56	58
Mean annual range:	1.15m	1986–87	3.54	4.59	90
Maximun ann. range:	4.27m	1987–88	2.47	4.36	23
Minimum ann. range:	0.26m	1988–89	2.48	3.21	74
		1989–90	1.59	2.84	111

SE36047 Kellys Cafe H.A: 27
NGR: SE 39456575 M.A: NRA Yorkshire
EEC Unit: YO21 Level: 24.8m AOD
Comment:

Period: 1981–1990		1985–86	19.86	20.24	111
Mean annual range:	0.33m	1986–87	19.70	20.06	72
Maximun ann. range:	0.62m	1987–88	19.66	20.10	172
Minimum ann. range:	0.10m	1988–89	19.59	19.87	30
		1989–90	19.17	19.45	51

SE39020B Scruton Village H.A: 27
NGR: SE 30049244 M.A: NRA Yorkshire
EEC Unit: YO23 Level: 35.0m AOD
Comment: Long-term fluctuation tends to mask annual variations.

Period: 1969–1990		1985–86	27.76	28.11	91
Mean annual range:	0.42m	1986–87	27.76	27.95	50
Maximun ann. range:	1.99m	1987–88	27.63	28.16	13
Minimum ann. range:	0.01m	1988–89	27.56	27.87	36
		1989–90	27.32	27.53	50

SE45003 Cattal Maltings H.A: 27
NGR: SE 44705580 M.A: NRA Yorkshire
EEC Unit: YO21 Level: 30.0m AOD
Comment:

Period: 1969–1990		1985–86	26.19	26.83	103
Mean annual range:	0.60m	1986–87	26.15	26.68	80
Maximun ann. range:	1.61m	1987–88	26.24	26.79	88
Minimum ann. range:	0.01m	1988–89	26.11	26.71	42
		1989–90	25.68	26.74	152

SE52004 Southfield Lane H.A: 27
NGR: SE 54732363 M.A: NRA Yorkshire
EEC Unit: YO18 Level: 18.1m AOD
Comment: Long-term fluctuations tend to mask annual variations.

Period: 1955–1990		1985–86	8.96	9.59	92
Mean annual range:	0.67m	1986–87	9.18	9.55	45
Maximun ann. range:	3.36m	1987–88	9.01	9.43	56
Minimum ann. range:	0.02m	1988–89	8.94	9.44	79
		1989–90	8.80	9.51	59

SE54032A Bilborough H.A: 27
NGR: SE 53324646 M.A: NRA Yorkshire
EEC Unit: YO20 Level: 45.5m AOD
Comment: Period of record too short to calculate meaningful mean annual range.

Period: 1984–1990		1985–86	12.03	12.21	
Mean annual range:	m	1986–87	12.11	12.49	
Maximun ann. range:	0.50m	1987–88	12.26	12.53	
Minimum ann. range:	0.17m	1988–89	12.43	12.77	
		1989–90	12.40	12.69	

SE55004 Clifton Hospital H.A: 27
NGR: SE 58295383 M.A: NRA Yorkshire
EEC Unit: Level: 12.3m AOD
Comment: Occasional data points missing throughout record; remaining data often suspect, possibly affected by pumping. Calculation of mean annual range not possible.

Period: 1967–1990		1985–86	5.47	7.67	
Mean annual range:	2.01m	1986–87	3.80	7.36	
Maximun ann. range:	4.92m	1987–88	4.03	7.54	
Minimum ann. range:	0.00m	1988–89	3.36	7.63	
		1989–90	3.81	7.20	

SE72003B Woodhouse Grange H.A: 28
NGR: SE 67840709 M.A: NRA Severn-Trent
EEC Unit: ST03 Level: 4.4m AOD
Comment: Period of record too short to calculate meaningful mean annual range.

Period: 1980–1990		1985–86	0.26	0.75	
Mean annual range:	m	1986–87	0.45	0.87	
Maximun ann. range:	0.75m	1987–88	0.63	1.23	
Minimum ann. range:	0.04m	1988–89	-0.05	0.62	
		1989–90	-0.52	-0.02	

SE60076 Rawcliffe Bridge H.A: 27
NGR: SE 70472149 M.A: NRA Yorkshire
EEC Unit: YO09 Level: 3.0m AOD
Comment: The well hydrograph is so irregular that calculation of the mean annual range cannot be justified.

Period: 1971–1990		1985–86	-2.04	-0.92	
Mean annual range:	m	1986–87	-3.3	-0.5	
Maximun ann. range:	3.53m	1987–88	-3.2	-0.9	
Minimum ann. range:	be jum	1988–89			
		1989–90	-2.6	-1.6	

SE83009 Holme-on-Spalding-Moor H.A: 26
NGR: SE 80403640 M.A: NRA Yorkshire
EEC Unit: YO34 Level: 5.0m AOD
Comment:

Period: 1974–1990		1985–86	1.65	1.99	108
Mean annual range:	0.36m	1986–87	1.28	1.58	66
Maximun ann. range:	1.16m	1987–88	1.18	1.43	105
Minimum ann. range:	0.00m	1988–89	1.22	1.45	102
		1989–90	0.37	1.44	42

SJ15015 Llanfair DC H.A: 66
NGR: SJ 13745556 M.A: NRA Welsh
EEC Unit: WL13 Level: 82.0m AOD
Comment: Index well.

Period: 1972–1990		1985–86	79.41	80.22	110
Mean annual range:	0.74m	1986–87	79.50	80.23	122
Maximun ann. range:	1.31m	1987–88	79.62	90.62	132
Minimum ann. range:	0.18m	1988–89	79.47	80.15	47
		1989–90	79.25	80.14	114

SJ33039 Eastwick Farm H.A: 67
NGR: SJ 38143831 M.A: NRA Welsh
EEC Unit: WL14 Level: 74.5m AOD
Comment: Long-term fluctuation tends to mask annual variations.

Period: 1974–1990		1985–86	67.91	68.11	50
Mean annual range:	0.24m	1986–87	67.83	68.02	92
Maximun ann. range:	0.46m	1987–88	67.79	68.09	193
Minimum ann. range:	0.06m	1988–89	67.79	68.16	126
		1989–90	67.74	68.06	101

SJ56045E **Ashton No 4** H.A: 68
NGR: SJ 50426953 M.A: NRA North West
EEC Unit: NW04 Level: 40.2m AOD
Comment: Incomplete data through 1985 to 1989.

		Period	Trough level (m)	Peak level (m)	Fluctuations as a % of the mean range
Period: 1970–1990		1985–86			
Mean annual range:	1.50m	1986–87			
Maximun ann. range:	4.72m	1987–88			
Minimum ann. range:	0.10m	1988–89			
		1989–90			

SJ83001A **Stone** H.A: 28
NGR: SJ 89693474 M.A: NRA Severn–Trent
EEC Unit: ST09 Level: 102.8m AOD
Comment:

Period: 1974–1990		1985–86	89.93	90.85	106
Mean annual range:	1.04m	1986–87	89.78	91.03	110
Maximun ann. range:	1.79m	1987–88	90.41	91.53	100
Minimum ann. range:	0.27m	1988–89	90.17	90.84	60
		1989–90	89.90	90.86	86

SJ87032 **Dale Brow** H.A: 68
NGR: SJ 89697598 M.A: NRA North West
EEC Unit: NW08 Level: 138.4m AOD
Comment: Incomplete data for 1988. Some data are suspect.

Period: 1973–1990		1985–86	96.00	98.02	176
Mean annual range:	1.03m	1986–87	96.94	98.18	153
Maximun ann. range:	1.81m	1987–88	97.20	98.71	163
Minimum ann. range:	0.00m	1988–89			
		1989–90	95.8	96.81	101

SJ88093 **Bruntwood Hall** H.A: 69
NGR: SJ 86118645 M.A: NRA North West
EEC Unit: NW08 Level: 62.6m AOD
Comment: Incomplete data through 1988 to 1990.

Period: 1972–1990		1985–86	47.88	48.25	54
Mean annual range:	1.00m	1986–87	48.13	48.74	181
Maximun ann. range:	2.80m	1987–88	48.09	49.35	96
Minimum ann. range:	0.25m	1988–89			
		1989–90			

SK00041 **Nuttalls Farm** H.A: 28
NGR: SK 06700120 M.A: NRA Severn–Trent
EEC Unit: ST10 Level: 141.8m AOD
Comment: Unexplained fluctuations, possibly due to pumping effects.

Period: 1974–1990		1985–86	129.38	129.84	55
Mean annual range:	0.58m	1986–87	129.46	129.87	78
Maximun ann. range:	1.77m	1987–88	129.71	130.62	155
Minimum ann. range:	0.00m	1988–89	129.41	130.57	
		1989–90	128.89	129.39	79

SK10009 **Wesford Flats** H.A: 28
NGR: SJ 14400464 M.A: NRA Severn–Trent
EEC Unit: ST10 Level: 96.2m AOD
Comment: Index well. Well dry below 88.61m AOD. Not always possible to discern natural fluctuations.

Period: 1966–1990		1985–86	89.34	89.76	70
Mean annual range:	0.57m	1986–87	89.31	89.74	73
Maximun ann. range:	1.50m	1987–88	89.31	90.78	183
Minimum ann. range:	0.00m	1988–89	89.49	90.68	
		1989–90	89.05	89.51	70

SK21111 **Grangewood** H.A: 28
NGR: SK 27311419 M.A: NRA Severn–Trent
EEC Unit: ST08 Level: 102.8m AOD
Comment: Long-term fluctuations can mask natural variations.

Period: 1967–1990		1985–86	89.65	91.13	149
Mean annual range:	1.40m	1986–87	90.09	91.24	89
Maximun ann. range:	2.80m	1987–88	90.56	91.89	108
Minimum ann. range:	0.00m	1988–89	89.37	91.65	19
		1989–90	88.35	91.83	194

SK24022 **Burtonshuts Farm** H.A: 28
NGR: SK 25394431 M.A: NRA Severn–Trent
EEC Unit: ST02 Level: 154.8m AOD
Comment: Long-term fluctuations can mask natural variations.

Period: 1972–1990		1985–86	136.46	137.54	139
Mean annual range:	0.74m	1986–87	137.19	137.70	80
Maximun ann. range:	2.21m	1987–88	137.50	139.53	
Minimum ann. range:	0.00m	1988–89	137.30	137.95	
		1989–90	136.56	137.34	

SK56053 **Peafield Lane** H.A: 28
NGR: SK 56326440 M.A: NRA Severn–Trent
EEC Unit: ST 0 Level: 112.9m AOD
Comment: Fluctuations, possibly due to pumping effects, mask natural variations. Mean annual range probably inaccurate.

Period: 1969–1990		1985–86	78.39	78.88	
Mean annual range:	0.35m	1986–87	78.68	79.04	
Maximun ann. range:	1.32m	1987–88	78.96	79.06	
Minimum ann. range:	0.00m	1988–89	78.41	79.14	
		1989–90	77.71	78.32	

SK67017 **Morris Dancers** H.A: 28
NGR: SK 64487257 M.A: NRA Severn–Trent
EEC Unit: ST05 Level: 54.8m AOD
Comment: Natural variations difficult to discern against long-term fluctuations. Mean annual range probably inaccurate.

Period: 1969–1990		1985–86	32.20	32.45	
Mean annual range:	0.18m	1986–87	32.21	32.29	
Maximun ann. range:	0.56m	1987–88	32.31	32.57	
Minimum ann. range:	0.00m	1988–89	32.26	32.62	
		1989–90	32.12	32.33	

SK68021 **Crossley Hill Wood** H.A: 28
NGR: SK 61008374 M.A: NRA Severn–Trent
EEC Unit: ST04 Level: 52.3m AOD
Comment: Natural variations difficult to discern against long-term fluctuations. Mean annual range probably inaccurate.

Period: 1969–1990		1985–86	25.92	26.15	
Mean annual range:	0.24m	1986–87	25.94	26.13	
Maximun ann. range:	0.95m	1987–88	26.19	26.64	
Minimum ann. range:	0.00m	1988–89	26.07	26.66	
		1989–90	25.62	26.11	

SK73050 **Woodland Farm** H.A: 28
NGR: SK 76933228 M.A: NRA Severn–Trent
EEC Unit: ST06 Level: 56.7m AOD
Comment: Period of record too short for meaningful determination of mean annual range. Natural variations occasionally masked by long-term fluctuations.

Period: 1980–1990		1985–86	14.12	15.96	
Mean annual range:	0.80m	1986–87	15.46	16.44	124
Maximun ann. range:	1.72m	1987–88	16.16	17.38	128
Minimum ann. range:	0.10m	1988–89	17.02	18.15	120
		1989–90	17.14	17.54	

SO71018 **Stores Cottage** H.A: 54
NGR: SO 71701970 M.A: NRA Severn–Trent
EEC Unit: ST16 Level: 66.4m AOD
Comment:

Period: 1973–1990		1985–86	62.62	65.10	87
Mean annual range:	3.42m	1986–87	62.47	65.09	74
Maximun ann. range:	5.79m	1987–88	61.98	64.80	74
Minimum ann. range:	1.62m	1988–89	61.85	63.72	51
		1989–90	61.23	65.56	93

SO87028 **Hillfields** H.A: 54
NGR: SO 81607970 M.A: NRA Severn–Trent
EEC Unit: ST14 Level: 97.6m AOD
Comment: A "lag" well, with trough levels reached in the spring rather in the autumn.

Period: 1961–1990		1985–86	73.20	73.97	119
Mean annual range:	0.76m	1986–87	73.27	73.75	67
Maximun ann. range:	2.19m	1987–88	73.42	74.37	123
Minimum ann. range:	0.15m	1988–89	72.86	74.76	47
		1989–90	72.58	73.57	144

ST12048 **Milverton Bypass** H.A: 52
NGR: ST 11102700 M.A: NRA Wessex
EEC Unit: WE06 Level: 72.4m AOD
Comment: Large gaps in record. Trough and peak levels could not be determined. Annual ranges could not be accurately determined.

Period: 1971–1990		1985–86			
Mean annual range:	m	1986–87			
Maximun ann. range:	m	1987–88			
Minimum ann. range:	m	1988–89			
		1989–90			

SX99037B **Bussels No 7A** H.A: 45
NGR: SX 95289872 M.A: NRA South West
EEC Unit: SW01 Level: 26.1m AOD
Comment: Index well.

Period: 1971–1990		1985–86	23.26	24.11	75
Mean annual range:	1.12m	1986–87	23.32	24.40	95
Maximun ann. range:	2.36m	1987–88	23.43	24.55	96
Minimum ann. range:	0.11m	1988–89	23.42	23.92	47
		1989–90	23.19	25.05	155

SY09021A **Heathlands** H.A: 45
NGR: SY 06659235 M.A: NRA South West
EEC Unit: SW01 Level: 102.8m AOD
Comment: No data for 1981 and 1982.

Period: 1951-1990
Mean annual range: 0.87m
Maximun ann. range: 1.89m
Minimum ann. range: 0.00m

Period	Trough level (m)	Peak level (m)	Fluctuations as a % of the mean range
1985-86	91.28	92.74	166
1986-87	91.50	92.95	157
1987-88	91.44	92.95	157
1988-89	91.41	92.44	145
1989-90	91.61	93.25	94

Aquifer: Magnesian Limestone

NZ22022 **Rusheyford NE** H.A: 25
NGR: NZ 28752896 M.A: NRA Northumbria
EEC Unit: NR10 Level: 92.5m AOD
Comment: Index well. Severely affected when neighbouring pumping station is operating.

Period: 1967-1990
Mean annual range: 0.56m
Maximun ann. range: 0.99m
Minimum ann. range: 0.09m

1985-86	75.58	76.37	124
1986-87	75.93	76.57	108
1987-88	76.32	76.90	106
1988-89	75.48	76.32	43
1989-90	74.68	75.46	16

NZ32019 **NWAK Heley House** H.A: 25
NGR: NZ 35752650 M.A: NRA Northumbria
EEC Unit: NR10 Level: 81.5m AOD
Comment: Data affected by pumping, particularly prior to 1982. Accuracy of remaining data suspect. Annual ranges probably inaccurate.

Period: 1968-1990
Mean annual range: 2.38m
Maximun ann. range: 5.96m
Minimum ann. range: 0.00m

1985-86	34.80	36.01	60
1986-87	35.18	36.01	44
1987-88	35.68	41.89	249
1988-89	34.69	36.96	94
1989-90	34.26	34.94	40

NZ33020 **Garmondsway** H.A: 24
NGR: NZ 33493501 M.A: NRA Northumbria
EEC Unit: NR07 Level: 102.3m AOD
Comment: No data for 1988.

Period: 1974-1990
Mean annual range: 5.62m
Maximun ann. range: 13.81m
Minimum ann. range: 0.00m

1985-86	75.30	82.82	123
1986-87	76.19	82.09	103
1987-88			
1988-89			
1989-90	73.82	76.35	42

SE28028 **Bedale** H.A: 27
NGR: SE 24608520 M.A: NRA Yorkshire
EEC Unit: YO23 Level: 74.2m AOD
Comment:

Period: 1972-1990
Mean annual range: 3.86m
Maximun ann. range: 7.13m
Minimum ann. range: 0.77m

1985-86	66.23	70.45	133
1986-87	66.41	68.91	76
1987-88	66.36	70.90	115
1988-89	66.56	69.00	77
1989-90	65.43	68.37	104

SE35004 **Castle Farm** H.A: 27
NGR: SE 38305830 M.A: NRA Yorkshire
EEC Unit: YO21 Level: 43.0m AOD
Comment: Rise in water levels through 1977 to 1979 masked natural variations. Data for 1981-82 and 1984-85 suspect.

Period: 1970-1990
Mean annual range: 0.67m
Maximun ann. range: 7.13m
Minimum ann. range: 0.15m

1985-86	36.49	37.06	83
1986-87	36.53	36.87	47
1987-88	36.53	37.18	91
1988-89	36.48	36.72	22
1989-90	36.19	36.62	52

SE43009 **Peggy Ellerton Farm** H.A: 27
NGR: SE 45353964 M.A: NRA Yorkshire
EEC Unit: YO20 Level: 51.4m AOD
Comment: Index well. Missing data in 1981-82.

Period: 1968-1990
Mean annual range: 1.21m
Maximun ann. range: 3.59m
Minimum ann. range: 0.00m

1985-86	33.85	34.89	85
1986-87	33.90	35.17	80
1987-88	34.21	35.52	108
1988-89	34.20	35.31	5
1989-90	33.15	33.98	48

SE43014 **Coldhill Farm No 35** H.A: 27
NGR: SE 46603550 M.A: NRA: Yorkshire
EEC Unit: YO24 Level: 37.9m AOD
Comment:

Period: 1971-1990
Mean annual range: 0.56m
Maximun ann. range: 0.81m
Minimum ann. range: 0.29m

1985-86	33.75	34.28	101
1986-87	33.81	34.23	77
1987-88	33.88	34.34	77
1988-89	33.98	34.18	52
1989-90	33.62	34.22	103

SE51002 **Westfield Farm** H.A: 27
NGR: SE 52101530 M.A: NRA Yorkshire
EEC Unit: YO09 Level: 28.0m AOD
Comment: Large unexplained fluctuations mask natural variations. Annual ranges probably inaccurate. Sharp fall in levels in January 1988, possibly due to pumping.

Period: 1971-1990
Mean annual range: 1.04m
Maximun ann. range: 3.83m
Minimum ann. range: 0.06m

1985-86	16.81	17.10	32
1986-87	16.37	17.07	59
1987-88	16.58	17.10	59
1988-89	12.37	17.16	
1989-90	11.80	12.51	65

SK46071 **Stanton Hill** H.A: 28
NGR: SK 48006030 M.A: NRA Severn-Trent
EEC Unit: ST05 Level: 176.3m AOD
Comment:

Period: 1973-1990
Mean annual range: 1.84m
Maximun ann. range: 3.24m
Minimum ann. range: 0.29m

1985-86	167.83	169.40	112
1986-87	167.93	170.00	123
1987-88	168.25	169.70	64
1988-89	167.79	169.23	115
1989-90	167.80	169.62	101

SK58043 **Southards Lane** H.A: 28
NGR: SK 52488018 M.A: NRA Severn-Trent
EEC Unit: ST04 Level: 98.4m AOD
Comment: Incomplete data for 1990.

Period: 1973-1990
Mean annual range: 6.46m
Maximun ann. range: 13.93m
Minimum ann. range: 0.00m

1985-86	83.01	87.44	77
1986-87	82.57	89.72	85
1987-88	83.08	89.10	95
1988-89	81.52	83.61	
1989-90			

Aquifer: Coal Measures

SE23004 **Trident House (Silver Blades)** H.A: 27
NGR: SE 28503414 M.A: NRA Yorkshire
EEC Unit: YO17 Level: 30.0m AOD
Comment: Long-term fluctuations tend to mask natural seasonal variations.

Period: 1971-1990
Mean annual range: 0.60m
Maximun ann. range: 1.37m
Minimum ann. range: 0.00m

1985-86	27.98	28.30	59
1986-87	27.97	28.25	62
1987-88	28.09	28.48	59
1988-89	28.14	28.33	33
1989-90	28.04	28.54	85

Aquifer: Millstone Grit

SE02046 **Thrum Hall** H.A: 27
NGR: SE 07712528 M.A: NRA Yorkshire
EEC Unit: YO12 Level: 228.2m AOD
Comment:

Period: 1977-1990
Mean annual range: 4.52m
Maximun ann. range: 8.08m
Minimum ann. range: 0.53m

1985-86	193.67	197.35	67
1986-87	194.95	198.23	137
1987-88	192.35	197.35	107
1988-89	194.68	196.35	12
1989-90	193.08	197 58	87

				Period	Trough level (m)	Peak level (m)	Fluctuations as a % of the mean range
SE04007	**Lower Heights Farm**	H.A: 27					
NGR: SE 02954792		M.A: NRA Yorkshire	**Period:** 1971–1990	1985–86	254.62	255.17	40
EEC Unit: YO15	Level: 54.0mm AOD		Mean annual range: 2.00m	1986–87	254.66	255.60	84
Comment: Well hydrograph very irregular. It is possible that recharge may take place throughout the year.			Maximum ann. range: 4.99m	1987–88	253.06	255.79	136
			Minimum ann. range: 0.38m	1988–89	254.34	256.12	72
				1989–90	253.00	254.69	133
SE24002B	**Green Lane Dyeworks**	H.A: 27					
NGR: SE 20674053		M.A: NRA Yorkshire	**Period:** 1971–1990	1985–86	129.00	134.90	99
EEC Unit: YO16	Level: 158.0m AOD		Mean annual range: 5.06m	1986–87	129.50	136.08	114
Comment: Unexplained fluctuations in measured levels.			Maximum ann. range: 9.69m	1987–88	127.97	133.14	160
			Minimum ann. range: 0.16m	1988–89	128.00	138.42	184
				1989–90	127.80	138.42	191
SE27008	**Kirkby Moor Farm**	H.A: 27					
NGR: SE 21207380		M.A: NRA Yorkshire	**Period:** 1971–1990	1985–86	153.54	153.83	
EEC Unit: YO22	Level: 174.0m AOD		Mean annual range: m	1986–87	153.52	153.70	
Comment: Impossible to determine natural seasonal variations. Annual ranges not calculated.			Maximum ann. range: m	1987–88	153.50	153.67	
			Minimum ann. range: m	1988–89	153.03	153.84	
				1989–90	153.47	153.74	

Aquifer: Carboniferous Limestone

NT95021	**Middle Ord**	H.A: 21					
NGR: NT 96955055		M.A: NRA Northumbria	**Period:** 1969–1990	1985–86	32.31	32.92	91
EEC Unit: NR01	Level: 65.0m AOD		Mean annual range: 0.61m	1986–87	31.99	32.66	59
Comment: Incomplete data for 1988.			Maximum ann. range: 1.67m	1987–88	31.98	32.91	
			Minimum ann. range: 0.07m	1988–89	31.68	32.54	83
				1989–90	30.69	31.82	64
SE06001	**Jerry Laithe Farm**	H.A: 27					
NGR: SE 02416183		M.A: NRA Yorkshire	**Period:** 1971–1990	1985–86	168.89	172.64	114
EEC Unit: YO19	Level: 178.0m AOD		Mean annual range: 5.59m	1986–87	167.45	174.83	128
Comment:			Maximum ann. range: 22.30m	1987–88	170.29	172.63	56
			Minimum ann. range: 1.01m	1988–89	167.12	172.24	80
				1989–90	167.43	171.40	20
SK15016	**Alstonfield**	H.A: 28					
NGR: SK 12925547		M.A: NRA Severn-Trent	**Period:** 1974–1990	1985–86	179.70	207.01	84
EEC Unit: ST02	Level: 280.2m AOD		Mean annual range: 32.46m	1986–87	175.59	212.32	122
Comment: Index well. The largest mean annual range in the archive.			Maximum ann. range: 43.09m	1987–88	178.44	207.25	98
			Minimum ann. range: 12.45m	1988–89	177.25	208.75	80
				1989–90	174.96	209.66	94
SK17013	**Hucklow South**	H.A: 28					
NGR: SK 17787762		M.A: NRA Severn-Trent	**Period:** 1969–1990	1985–86			
EEC Unit: ST01	Level: 301.8m AOD		Mean annual range: 25.41m	1986–87	254.90	276.85	120
Comment: Incomplete data for 1986.			Maximum ann. range: 38.49m	1987–88	257.07	276.88	110
			Minimum ann. range: 10.49m	1988–89	256.66	275.40	41
				1989–90	249.85	274.84	86
ST64033	**Oakhill No 1**	H.A: 53					
NGR: ST 65604790		M.A: NRA Wessex	**Period:** 1974–1990	1985–86	148.24	154.07	143
EEC Unit: WE07	Level: 159.9m AOD		Mean annual range: 4.22m	1986–87	148.90	153.31	117
Comment:			Maximum ann. range: 6.04m	1987–88	148.72	152.61	128
			Minimum ann. range: 1.13m	1988–89	148.90	152.46	91
				1989–90	148.36	151.40	64

THE NATIONAL RIVER FLOW AND GROUNDWATER LEVEL ARCHIVE DATA RETRIEVAL SERVICE

In order that the contents of the National River Flow data and Groundwater Level Archives may be readily accessible a suite of standard programs has been developed to provide a comprehensive selection of retrieval options from each archive. An outline of the data retrieval facilities is given below; further details are provided in each of the Yearbooks in the Hydrological data UK series (see page 186).

Cost of Service

To cover the computing and handling costs, a moderate charge will be made depending on the output options selected. Estimates of these charges may be obtained on request; the right to amend or waive charges is reserved.

River Flow Data Retrieval

The National River Flow archive comprises around 30000 station-years of daily river flows and incorporates data from over 1500 gauging stations throughout the United Kingdom. In addition to gauged flow data, naturalised data have been derived from the records of a small number of gauging stations. Catchment areal rainfall and the highest instantaneous flow, when available, are also archived on a monthly basis. A range of validation procedures is applied to most of the contemporary river flow and rainfall data but the quality control of much of the historical data will have been rudimentary. As a consequence, significant variation in precision or archived data sets is to be expected.

Retrievals are normally available on line printer listings, magnetic tape or diskette, or as hydrograph plots. A short description of each retrieval option is given on page 183. The retrieval programs have been designed to allow considerable flexibility in the presentation of the options, particularly those producing graphical output.

Before finalising a data request it is recommended that the Table of Hydrometric Statistics (see pages 11 to 162) be consulted as a guideline to the suitability of the river flow data for particular applications. Details of the availability of data – on a monthly basis – are provided in the 'Summary of Archived Data' which appears at the end of the Hydrometric Statistics section for each of the measuring authorities.

In response to user requirements the data retrieval facilities are being continually extended. A wide range of specialist analyses and presentations is now available. Individuals having data requirements not catered for in the standard retrieval suite are invited to contact the Institute of Hydrology or the British Geological Survey (addresses below) to discuss their particular needs.

Groundwater Level Data Retrieval

The Groundwater Level Archive holds well level data and site details for around 160 representative wells and boreholes throughout the United Kingdom. Some characteristics of individual wells, and well records, are given in the Groundwater Register and Statistics section but it is recommended that data users contact the Hydrogeology Group (see over) before finalising any data request.

Six standard options are available for retrieving data. A description of each option is given on page 183. Options 1 to 4 give details of the well site, the period of record available, and maximum and minimum recorded levels in addition to the output specific to each option. Data may be retrieved for a specific well or for groups of wells by well reference numbers, by area (using National Grid References), by aquifer, by hydrometric area, by measuring authority, or by any combination of these parameters.

At the present time not all the data contained within the Archive have been validated.

Requests for Retrieval Options

Requests for data should include: the name and address to which the output should be directed, the sites, or areas, for which data are required together with the period of record of interest (where appropriate) and the title of the required option. Where possible, a daytime telephone number should be given.

Requests for retrieval options should be addressed to:-

Surface Water Data:

National Water Archive Office
Institute of Hydrology
Maclean Building
Crowmarsh Gifford
WALLINGFORD
OXFORDSHIRE OX10 8BB

Tel: (0491) 838800 Fax: (0491) 832256

Groundwater Data:

The British Geological Survey
Hydrogeology Group
Maclean Building
Crowmarsh Gifford
WALLINGFORD
OXFORDSHIRE OX10 8BB

Tel: (0491) 838800 Fax: (0491) 825338

The National Water Archive

As of April 1992, the National River Flow Archive was incorporated into the National Water Archive (NWA) – the most recently established of NERC's five Designated Data Centres. These Centres, located at NERC Institute sites, exist to hold data and provide information and advisory services to a wide range of users.

The National River Flow and National Groundwater Level Archives form the kernel of the National Water Archive holdings at Wallingford but a very broad range of hydrological and related data sets are being assimilated into the co-ordinated management that the NWA provides. Data holdings range from the catchment scale (e.g. detailed climatological and hydrological data for a network of experimental catchments) to national (flood event data) and international coverage (world floods archive). The utility of the archived time series data is enhanced by the availability of complementary spatial information (for example the digitised river network and UK soils hydrology map) and by the manipulative potential provided by modern data handling systems and analytical packages.

Staff at the NWA maintain close contacts with measuring authorities and keep under review developments in the field of network design, instrumentation and information technology. A continuing dialogue with both data suppliers and an active community of users ensures that the databases and retrieval facilities are reviewed continuously to provide an effective and responsive service across a broad range of applications.

Data sets of particular hydrological interest include an archive of flood peaks from over 600 catchments and a flood event archive comprising rainfall and river flows at short time intervals for over 4000 individual events and experimental catchment data for Plynlimon (mid-Wales) and Balquhidder (Scotland). Data may be retrieved from these sources in a variety of formats. Equivalent European data also exists as part of the FRIEND project of the International Hydrological Programme.

The National Well Record Archive

The British Geological Survey also maintains the National Well Record Archive (NWRA) for England and Wales. Currently this archive includes hydrogeological details and reference information for over 150,000 shafts, boreholes and some springs – predominantly constructed or used for water supply or the monitoring of groundwater levels or quality. The archive is organised into paper files based upon the 10 kilometre squares of the National Grid. Each file includes a register which details the accession number, the depth, the national grid reference and certain other details. This material is an essential component in the hydrogeological enquiry service operated by BGS and the register details are in the process of being transferred to a digital format.

The Archive is located at the Wallingford Office of BGS (address above) and all the non-confidential records are open to inspection by the general public. Those wishing to avail themselves of this facility should contact the BGS Records Section in advance to discuss access procedures and costs.

National Geosciences Information Centre

The NWRA is associated with the National Geosciences Information Service (NGIS), one of a number of computer-based data centres established at NERC Institutes. The NGIS is located at the BGS Headquarters, Keyworth, near Nottingham (Telephone: 0602 363100) and provides access to a broad range of geological information (for example, geophysical and hydrogeological logs, core samples and chemical analyses).

River Flow Archive Data Retrieval Options

OPTION NUMBER	TITLE
1	Table of daily mean gauged discharges
2	Table of daily mean naturalised discharges
3	Yearbook data tabulation (daily)
4	Table of monthly mean gauged discharges
5	Table of monthly mean naturalised discharges
6	Yearbook data tabulation (monthly)
7	Table of monthly extreme flows
8	Table of catchment monthly rainfall
9	Table of catchment monthly areal rainfall and runoff
10	Hydrographs of daily mean flows
11	Hydrographs of monthly mean flows
12	Flow duration statistics
13	Table of gauging station reference information
14	Table of hydrometric statistics
15	Gauging station descriptions
16	River flow pattern plots
17	Gauging station summary sheet

Groundwater Level Archive Data Retrieval Options

OPTION NUMBER	TITLE
1	Table of groundwater levels
2	Table of annual maximum and minimum groundwater levels
3	Table of monthly maximum, minimum and mean groundwater levels
4	Hydrographs of groundwater levels
5	Site details
6	Site details and statistics – as presented in the 'Well Register and Statistics' section.

More detailed descriptions of the options together with examples of the standard retrievals are given in most Yearbooks in the Hydrological data UK series.

DIRECTORY OF MEASURING AUTHORITIES

	Address	Code
National Rivers Authority	Rivers House, Waterside Drive, Aztec West, Almondsbury, Bristol BS12 4UD	NRA
NRA Regional Headquarters		
Anglian	Kingfisher House, Goldhay Way, Orton Goldhay, Peterborough PE2 5ZR	NRA-A
Northumbria*	Eldon House, Regent Centre, Gosforth, Newcastle-upon-Tyne NE3 3UD	NRA-N
Yorkshire*	Rivers House, 21 Park Square South, Leeds LS1 2QG	NRA-Y
North West	Richard Fairclough House, PO Box 12, Knutsford Rd, Warrington WA4 1HG	NRA-NW
Severn-Trent	Sapphire East, 550 Streetsbrook Road, Solihull B91 1QT	NRA-ST
Southern	Guildbourne House, Chatsworth Road, Worthing, West Sussex BN11 1LD	NRA-S
South West	Manley House, Kestrel Way, Sowton Industrial Estate, Exeter EX2 7LQ	NRA-SW
Thames	Kings Meadow House, Kings Meadow Road, Reading RG1 8DQ	NRA-T
Welsh	Rivers House/Plas-yr-Afon, St Mellons Business Park, St Mellons, Cardiff CF3 0LT	NRA-WEL
Wessex	Rivers House, East Quay, Bridgwater TA6 4YS	NRA-W
River Purification Boards		
Clyde River Purification Board	Rivers House, Murray Road, East Kilbride, Glasgow G75 0LA	CRPB
Forth River Purification Board	Clearwater House, Heriot Watt Research Park, Avenue North, Riccarton, Edinburgh EH14 4AP	FRPB
Highland River Purification Board	Strathpeffer Road, Dingwall IV15 9QY	HRPB
North East River Purification Board	Greyhope House, Greyhope Road, Torry, Aberdeen AB1 3RD	NERPB
Solway River Purification Board	Rivers House, Irongray Road, Dumfries DG2 0JE	SRPB
Tay River Purification Board	1, South Street, Perth PH2 8NJ	TRPB

* As of the 1st January 1993 the Northumbria and Yorkshire regions combined to form a single NRA region.

Tweed River Purification Board	Burnbrae, Mossilee Road, Galashiels TD1 1NF	TWRP

Other measuring authorities

Borders Regional Council (Directorate of Water and Drainage Services)	West Grove, Waverley Road, Melrose TD6 9SJ	BRWD
Corby (Northants) and District Water Company	Geddington Road, Corby, Northants NN18 8ES	CDWC
Department of the Environment for Northern Ireland	Water Service, Northland House, 3 Frederick Street, Belfast BT1 2NS Environmental Protection Division, Calvert House, 23 Castle Place, Belfast BT1 1FY	DOEN
Dumfries and Galloway Regional Council (Department of Water and Sewerage)	Marchmount House, Marchmount, Dumfries DG1 1PW	DGRW
Essex Water Company	Hall Street, Chelmsford CM2 OHH	EWC
Geological Survey of Northern Ireland	20 College Gardens, Belfast BT9 6BS	GSNI
Grampian Regional Council (Water Services Department)	Woodhill House, Westburn Road, Aberdeen AB9 2LU	GRWD
Highland Regional Council (Water Department)	Regional Buildings, Glenurquhart Road, Inverness IV3 5NX	HRCW
Institute of Hydrology	Maclean Building, Wallingford OX10 8BB	IH
Lothian Regional Council (Department of Water and Drainage)	6 Cockburn Street, Edinburgh EH1 1NZ	LRWD
Newcastle and Gateshead Water Plc	PO Box 10, Allendale Road, Newcastle-upon-Tyne NE6 2SW	NGWC
North West Water	Dawson House, Liverpool Road, Great Sankey, Warrington WA5 3LW	NWW
Scottish Hydro-Electric Plc	16 Rothesay Terrace, Edinburgh EH3 7SE	SE
Scottish Office Agriculture and Fisheries Department	St Andrews House, Regent Road, Edinburgh EN1 3DE	SOAFD
Southern Water	Southern House, Yeoman Road, Worthing BN13 3NX	SW
Strathclyde Regional Council (Water Department)	419 Balmore Road, Glasgow G22 6NU	SRCW
Tayside Regional Council (Water Services Department)	Bullion House, Invergowrie, Dundee DD2 5BB	TRWS
Yorkshire Water	2, The Embankment, Sovereign Street, Leeds LS1 4B6	YW

Note: The measuring authorities listed in this directory provide (or have provided) daily flow data to the national archive for primary flow measurement stations. In recent years a number of valuable long records for additional sites have been identified. Most of these will be incorporated into the River Flow Archive when appraisals of the gauging stations and flow records are complete. Further lengthy records, whether of springs, runoff, river levels, well levels or bourne flow occurrences, would be welcomed and holders of such data are invited to contact the Institute of Hydrology.

PUBLICATIONS - in the Hydrological data UK series

Title	*Published*	*Price* (inclusive of second class postage within the UK)	
Yearbooks:		*Loose-Leaf**	*Bound*
Yearbook 1981	1985	£10	£12
Yearbook 1982	1985	£10	£12
Yearbook 1983	1986	out of print	
Yearbook 1984	1986	out of print	
Yearbook 1985	1987	£12	£15
Yearbook 1986	1988	£12	£15
Yearbook 1987	1989	£12	£15
Yearbook 1988	1989	£12	£15
Yearbook 1989	1990	£15	£18
Yearbook 1990	1991	£15	£18
Yearbook 1991	1992		£20
Reports:			
Hydrometric Register and Statistics 1981-5[1]	1988	£12	£15
Hydrometric Register and Statistics 1986-90	1992		£20
The 1984 Drought[2]	1985		£12

Concessionary rates apply to the purchase of two or more of the pre-1988 Yearbooks.

All the Hydrological data UK publications may be obtained from:-

Institute of Hydrology
Maclean Building
WALLINGFORD
OXFORDSHIRE OX10 8BB

Tel: (0491) 838800 Fax: (0491) 832256

Enquiries or comments regarding the series, or individual publications are welcomed and should be directed to the National Water Archive Office at the above address.

1. Hydrometric Register and Statistics 1981-5

This reference volume, the precursor to the 1986-90 edition, includes maps, tables and statistics for over 800 river basins and 150 representative observation boreholes throughout the United Kingdom. The principal objective of the publication is to assist data users in the selection of monitoring sites for particular investigations and to allow more effective interpretation of analyses based upon the raw data. To this end, concise gauging station and catchment descriptions are given for the featured flow measurement stations - particular emphasis is placed on hydrometric performance, especially in the high and low flow ranges, and on the net effect of artificial influences on the natural flow regime.

Summary hydrometric statistics, for each of the years 1981-85, are provided alongside the corresponding long term averages, or extremes, to allow the recent variability in surface and groundwater resources to be considered in a suitable historical context.

*Loose-leaf versions of the Hydrological data UK publications have been discontinued.

2. The 1984 Drought

This first, occasional report in the Hydrological data UK series concerns the 1984 drought. The report documents the drought in a water resources framework and its development, duration and severity are examined with particular reference to regional variations in intensity. Assessments are made of the likely frequency of occurrence of the drought and its magnitude is considered in the perspective provided by historical records of rainfall and runoff.

Associated Publications

Representative Basin Catalogue

Data collection for the national Flood Event Archive, maintained by the Institute of Hydrology, concentrates on a selection of basins that form a representative sample of UK catchments. A catalogue providing comprehensive hydrological and reference information for 200 representative basins has been prepared and is available as national (five volumes) or regional sets; user-selected groups of catchments can be provided for particular investigations. Enquiries concerning the cost and availability of the catalogue should be directed to the above address.

Groundwater Level Hydrographs

In 1990 the British Geological Survey launched a series of wallcharts depicting long term variations in groundwater levels. The following are currently available:

i. Long term hydrograph of groundwater levels in the Chilgrove House well in the Chalk of southern England
ii. Long term hydrograph of groundwater levels in the Dalton Holme estate well in the Chalk of Yorkshire

Copies may be obtained from the Wallingford office of the British Geological Survey (address on page 182).

GLOSSARY

This glossary of terms is intended primarily to help explain some of the technical vocabulary used in the section of the gauging station register. Where possible, the definitions given below are based upon those developed by the International Standards Organisation[1].

Surface Water

Afflux	The rise in water level immediately upstream of, and due to, an obstruction.
Backwater (curve)	The profile of the water surface upstream when its surface slope is generally less than the bed slope. The backwater curve generally occurs upstream of an obstruction or confluence.
Broad-crested	A weir of sufficient breadth (in the direction of the flow) weir such that critical flow occurs on the crest of the weir. The term long-crested is sometimes also applied to such structures.
Cableway	An assembly of winches and ropes and a carrier for placing the current meter at any desired point in the cross section.
Calibration (Rating)	The establishment of a discharge relationship with the measured variable. Sometimes used as a synonym for the stage-discharge relation.
Compensation flow	A minimum flow which a water authority is under an obligation to discharge into a watercourse as a condition of carrying out their undertaking. Commonly the obligation relates to the maintenance of a discharge rate below a reservoir. The term 'residual flow' is preferred by some authorities.
Compound weir	A weir containing two or more sections, which may be of different types, each section normally having a different height.
Control	The physical properties of a channel, natural or artificial, which determine the relationship between stage and discharge at a location in the channel.
Critical flow	The flow in which the total energy head* is a minimum for a given discharge; critical flow conditions are created by the installation of most standard weirs and flumes (as well as by natural obstructions and constrictions).
Depth of approach	The depth of the upstream bed – at the tapping point* – below the lowest point of a weir crest.
Drawdown curve	The profile of the water surface where its surface slope exceeds the bed slope, for instance, immediately upstream of a weir or flume.
Drowned (or submerged) weir	A weir in which the upstream level is affected by the downstream water level (and the 'modular' stage-discharge relation no longer applies).
Flume	An artificial channel with clearly specified shape and dimensions which may be used for the measurement of flow. A standing-wave flume, for instance, contains a constriction which causes the flow to change from sub-critical to super-critical and in which the measurement of upstream water level (alone) allows the discharge to be computed.
Freshets	The periodical release of discharge rates over and above the basic compensation flow. These artificial floods are intended to benefit the aquatic environment – particularly fisheries.
Gaugeboard	A device with a graduated scale installed at a gauging station for measuring the level of water relative to a datum. Gaugeboards can be either vertical or inclined.
Hydraulic jump	The sudden change of flow from super-critical* flow to sub-critical flow*. The transition is marked by a standing-wave.
Hysteresis	The effect on the stage-discharge relation at a gauging station subject to variable water surface slope where, for the same gauge height, the discharge on a rising stage differs from that on a falling stage.

Influent stream	One which flows above the water-table and contributes to it by natural leakage through the bed of the channel.
Invert	The lowest part of the cross-section of a natural or artificial channel.
Modular limit (point of submergence)	The submergence ratio when the flow just begins to be affected by the downstream level.
Nappe	The jet formed by the flow over a weir. A clinging nappe is one held in contact with the downstream face of a weir.
Rhymer weir	A simple form of variable geometry weir consisting of fixed horizontal beams which support vertical timber posts to form a series of rectangular openings – these may be closed by means of timber gates.
Stage	The elevation of the free surface of a stream relative to a datum; sometimes also referred to as the gauge height.
Stage-discharge relation	An equation, table or formula which expresses the relation between the stage and the discharge in an open channel at a given cross-section.
Stilling well	A well connected with the main stream in such a way as to permit the measurement of stage in relatively still water.
Submergence *	The ratio of the downstream total head (measured head plus velocity head) to the upstream total head over a weir.
Suppressed weir	A weir whose sides are in the same plane as the open channel – thus eliminating (suppressing) side contractions of the stream.
Thin-plate weir	A weir constructed of a vertical thin plate with a thin crest shaped in such a manner that the nappe springs clear of the crest.
Triangular – profile weir	A weir having a triangular profile in a vertical direction in the direction of flow. The 'Crump' and 'Flat V' weirs are examples of such structures.
Unstable channel	Channel in which there are frequent and significant changes in control.
Velocity of approach	The mean velocity in an open channel at a specified distance upstream of a measuring device.
Velocity head	The head obtained by dividing the square of the mean velocity (in the measuring section) by twice the acceleration due to gravity.

* For definitions of these terms see reference 1.

Groundwater

Aquifer	A rock formation containing groundwater that can be abstracted economically in useful quantities.
Artesian well	A shaft, or more commonly a borehole, within which, when the aquifer is penetrated, water rises within the well to a level above the top of the aquifer, i.e. above the base of a confining layer. The term is usually reserved for wells that naturally overflow at the ground surface; where the water level rises, but does not reach the ground surface, the term sub-artesian has sometimes been used.
Borehole	A well constructed by machinery, usually less than one metre in diameter. Usually constructed vertically, but inclined boreholes are occasionally constructed.
Confined aquifer	An aquifer in which groundwater is held under pressure by a confining layer (see also artesian well).

Confining layer	An impermeable rock formation that immediately overlies an aquifer, and which may contain water in the latter under pressure.
Groundwater	Sub-surface water contained within the saturated zone.
Observation well	A shaft or borehole used for observing groundwater head or quality.
Permeability	The ability of a material to allow the passage of a fluid.
Piezometric surface	The surface that represents the static head of groundwater in a confined aquifer; in practice, the static head is taken to be the water level measured in a well penetrating a confined aquifer.
Potentiometric surface	The surface that represents the static head of groundwater in both confined aquifers and water-table aquifers. This term includes piezometric surface and water-table.
Rising	A term used particularly in South-West England for a continuous outflow of subterranean water of such dimensions as to be regarded as the emergence of a river rather than a spring; characteristic of Karstic aquifers such as the Carboniferous Limestone in the Mendip Hills.
Saturated zone	That part of an aquifer, normally beneath the deepest water-table, in which ideally all voids are filled with water under pressure greater than atmospheric.
Shaft	A well constructed by hand and generally greater than one metre in diameter.
Unsaturated zone	That part of an aquifer between the ground surface and the water-table.
Water level	In this context, the altitude (or depth) of the water surface as measured in a well.
Water-table	The surface of a groundwater body at which the water pressure is atmospheric. Unless the water-table is coincident with the ground surface, an unsaturated zone will be present.
Well	A term used to include both shafts and boreholes although occasionally used for shafts only.

ABBREVIATIONS

Note: The following abbreviations do not purport to represent any standardised usage; they have been developed for use in the Hydrological data UK series of publications only. Where space constraints have required alternative forms of these conventional abbreviations to be used, the meaning should be evident from the context.

General

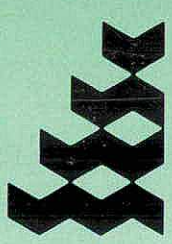
AOD	Above Ordnance Datum
ALF	Augmentation of low flows
Bk	Beck
Blk	Black
Br	Bridge
Brk or B	Brook
Brn	Burn
Ch	Channel
C/m	Current meter(ing)
Com	Common
Dk	Dike
Dmf	Daily mean flow
Dr or D	Drain
D/s	Downstream
E	East
Frm	Farm
G/s	Gauging station
Gw	Groundwater
HEP	Hydro-electric power
Ho	House
Hosp	Hospital
L	Loch or lake
Lb	Left hand river bank (looking downstream)
Ln	Lane
Lst	Limestone
Ltl	Little
MAF	Mean annual flood
Mkt	Market
Ml/d	Megalitres per day
Mnr	Manor
N	North
Ntch	Notch
NW	North West
O/f	Outfall or outflow
ORS	Old Red Sandstone
Pk	Park
Pop	Population
POR	Period of record

PS	Pumping station
Pt	Point
PWS	Public water supply
Rb	Right hand river bank (looking downstream)
R/c	Racecourse
RCS	Regional communications system
Rd	Road
Res	Reservoir
Rh	Right hand
S	South
Sch	School
S-D	Stage-discharge relation
SE	South East
SOE	Scottish Office Environment Department
Sl	Sluice
Sp	Spring
St	Stream
STW	Sewage treatment works
SW	South West
TS	Transfer scheme
U/s	Upstream
W	West
WC	Water company
W'course	Watercourse
Wd	Wood
Wht	White
Wr	Weir
WRW	Water reclamation works
Wtr	Water
WTW	Water treatment works

For an explanation of the letter codes used to categorise flow measurement stations, see page 5.

Reference

1. International Standards Organisation, 1978. Liquid flow measurement in open channels - Vocabulary and symbols, ISO 772–1978.



Natural
Environment
Research
Council