Hydrological data UK

1985 YEARBOOK

INSTITUTE OF HYDROLOGY • BRITISH GEOLOGICAL SURVEY

HYDROLOGICAL DATA UNITED KINGDOM

1985

YEARBOOK

HYDROLOGICAL DATA UNITED KINGDOM

1985 YEARBOOK

An account of
rainfall, river flows and groundwater levels
January to December 1985

Institute of Hydrology **British Geological Survey**

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

ISBN 0 948540 07 9

A note for buyers of the loose-leaf version:-

So that this version can stand alone as a separate volume it has been necessary to repeat much of the background information which has already appeared in the earlier editions. Readers may wish to save space in the binder by discarding some of the repeated sections - e.g. those concerned with the surface water and groundwater data retrieval services - from the 1981-84 Yearbooks.

Cover:

Flooding in the St Johns Beck catchment near Keswick, in the Lake District - 21st December 1985.

Photograph: North West Water

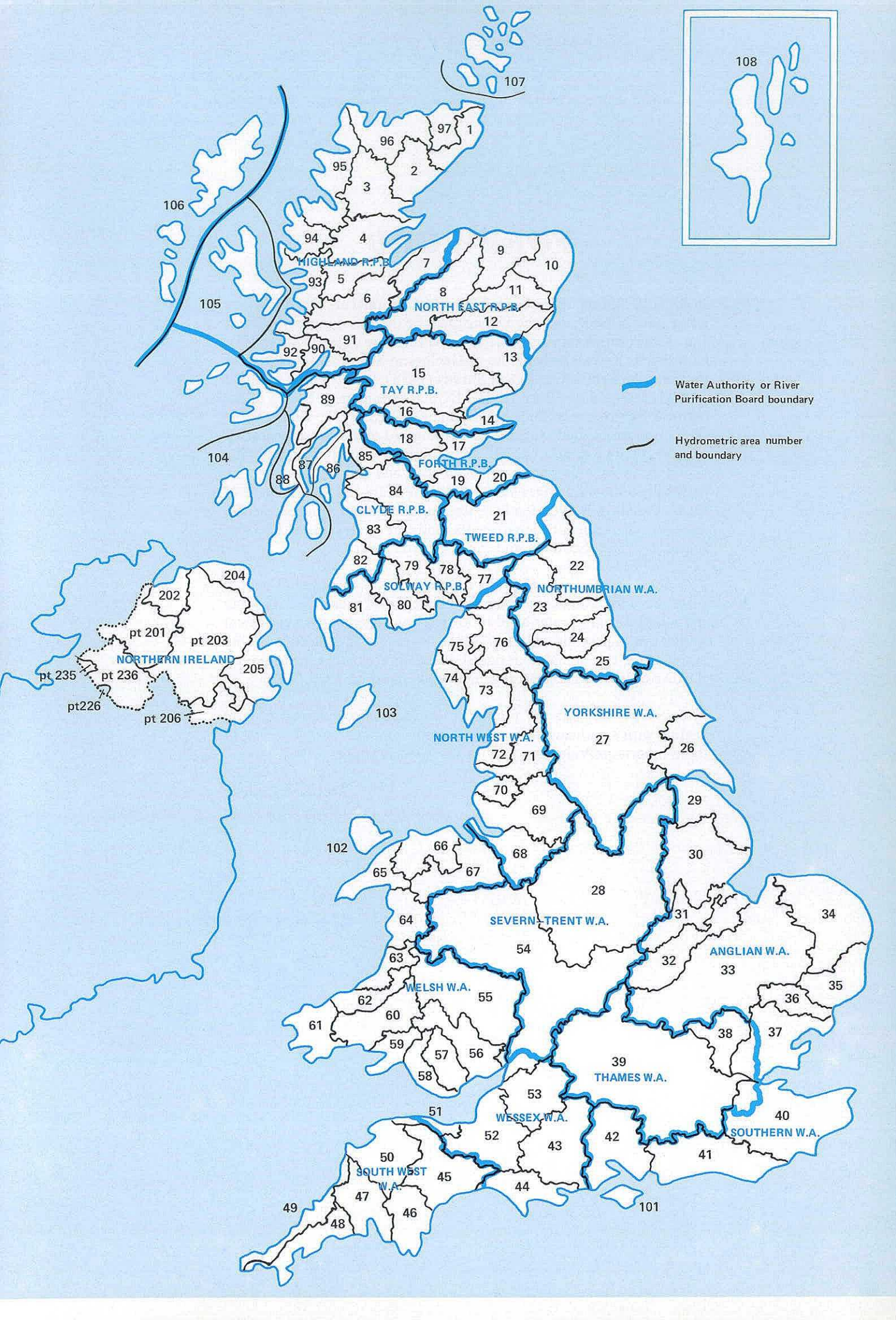
FOREWORD

In April 1982, care of the United Kingdom national archive of surface water data passed from the Department of the Environment's Water Data Unit (which was disbanded) to the Institute of Hydrology (IH). In a similar move, the Institute of Geological Sciences, subsequently renamed the British Geological Survey (BGS), took over the national groundwater archive. Both IH and BGS are component bodies of the Natural Environment Research Council (NERC). The BGS hydrogeologists are located with IH at Wallingford and close cooperation between the two groups has led, among other things, to the launching – in 1985 – of a new series of yearbooks and reports dealing with nationally archived surface and groundwater data and the use made of them. The work is overseen by a steering committee with representatives of Government departments and the water industry from England, Wales, Scotland and Northern Ireland.

The published series – *Hydrological data: UK* – includes an annual yearbook and, every five years, a catalogue of river flow gauging stations and groundwater level recording sites together with statistical summaries. These six volumes of the 5-year cycle will be available individually but are also designed to be inserted in a ring binder. Further details of these arrangements are given on page 199.

The series – but not the binder – also includes occasional reports dealing with significant hydrological events and analyses. The first of these reports provides a review of the 1984 drought.

J.S.G. McCulloch
Director, Institute of Hydrology


108
107
106
105
104
103
102
101
HIGHLAND R.P.B.
NORTH EAST R.P.B.
TAY R.P.B.
FORTH R.P.B.
CLYDE R.P.B.
TWEED R.P.B.
SOLWAY R.P.B.
NORTHUMBRIAN W.A.
YORKSHIRE W.A.
NORTH WEST W.A.
SEVERN-TRENT W.A.
ANGLIAN W.A.
WELSH W.A.
THAMES W.A.
WESSEX W.A.
SOUTHERN W.A.
SOUTH WEST W.A.
NORTHERN IRELAND
pt 201
pt 203
pt 235
pt 236
pt226
pt 206
Water Authority or River Purification Board boundary
Hydrometric area number and boundary

CONTENTS

INTRODUCTION

This volume is the fifth Yearbook published in the Hydrological data: UK series and the final volume in the first five-year cycle. The 1985 Yearbook represents the twenty-sixth edition in the series of surface water publications which began with the 1935-36 Surface Water Yearbook. As a result of the incorporation of groundwater data in the Yearbook, this volume is also the tenth edition in the series of groundwater data publications which began with the 1964-66 Groundwater Yearbook. Summary statistical information together with catalogues of river flow gauging stations and groundwater level recording sites for the period 1981-85 will be published shortly.

Apart from summary information, surface water and groundwater data on a national basis were published separately prior to the introduction of the Hydrological data: UK series. In common with the earlier editions, the 1985 Yearbook brings together the principal data sets relating to river flow, groundwater levels and rainfall throughout the United Kingdom. A description is also given of the surface water and groundwater archives together with the data retrieval facilities which complement this volume.

To celebrate the fiftieth anniversary of the formation of the Inland Water Survey – in 1935 – a special feature traces the history of hydrometric monitoring in the United Kingdom. A complementary article examines the pioneering work of Captain W. N. McLean in Scotland with particular reference to the creation of the early hydrometric data sets now housed at the University of St Andrews.

The first Surface Water Yearbook, for the water year (October-September) 1935-36, was published in 1938 and included selected data for the previous fifteen years; the edition for 1936-37 followed in 1939. Both these publications were prepared under the direction of the Inland Water Survey Committee. Assisted by the Scottish Office, the Committee continued to publish hydrological data after the war; the Yearbook for the period 1937-45 being published as a single volume in 1952.

Due to economic stringency, the Survey was suspended in 1952 for a period of two years but was then reformed as the Surface Water Survey Centre of Great Britain. A Yearbook covering the years 1945-53 was published in 1955.

In 1964 the Survey was transferred to the Water Resources Board where it remained until 1974 when the work of collection and publishing surface water information in England and Wales was again transferred, this time to the Water Data Unit of the Department of the Environment. Yearbooks were published jointly each year by these organisations and the Scottish Office for the water years 1953-54 to 1965-66, but thereafter information for the five calendar years 1966 to 1970 was published in one volume in 1974. Following editions were renamed 'Surface Water : United Kingdom' to mark the inclusion of the first records from Northern Ireland and in recognition of the move away from single year volumes. Two volumes of Surface Water : United Kingdom, covering the years 1971-73 and 1974-76 were published jointly by the Water Data Unit, the Scottish Development Department and the Department of the Environment for Northern Ireland.

Following the transfer of the surface water archive to the Natural Environment Research Council in 1982, the final edition of Surface Water : United Kingdom, for the years 1977-80, was prepared by the Institute of Hydrology at the request of the Water Directorate of the Department of the Environment, and published in 1983.

The 1981 and 1982 Yearbooks were prepared concurrently and were, in 1985, the first Yearbooks published by the Natural Environment Research Council. Publication of the 1983 and 1984 Yearbooks followed in 1986.

A compilation of 'Groundwater levels in England during 1963' which was produced by the Geological Survey of Great Britain prior to its incorporation into the Institute of Geological Sciences, was the precursor to the publication of groundwater level data on a national basis. The more formal Groundwater Yearbook series was instigated by the Water Resources Board which published the inaugural edition, and a further volume for 1967, both covering England and Wales. In 1975 a third Yearbook, for 1968-70, was published by the Water Data Unit. The Groundwater: United Kingdom series was introduced in 1978 with the production of the 1971-73 volume, also published by the Water Data Unit.

Following the transfer of the groundwater archive to the Institute of Geological Sciences (now the British Geological Survey), the second edition of Groundwater : United Kingdom, covering the period 1974-80, was prepared by the Institute of Hydrology at the request of the Water Directorate of the Department of the Environment.

The 1985 Yearbook may be seen as part of the United Kingdom's contribution to UNESCO's International Hydrological Programme in continuing the exchange of hydrological information begun in 1965 for the International Hydrological Decade.

The Natural Environment Research Council acknowledge and extend their appreciation to all who have assisted in the collection of information for this publication.

SCOPE AND SOURCES OF INFORMATION

The format of the yearbooks in the Hydrological data: UK series differs substantially from that of previous yearbooks. A greater variety of hydrological information is provided and emphasis is placed upon ready access to basic data both within the yearbook and through the complementary data retrieval facilities.

The contents have been abstracted primarily from the surface water and groundwater archives. Responsibility for the collection and initial processing of the data rests mainly with the ten Water Authorities in England and Wales, the seven River Purification Boards in Scotland and the Department of the Environment (NI) in Northern Ireland. Additional material has been provided by the Geological Survey of Northern Ireland, the Borders Regional Council and by research bodies and public undertakings. The majority of the rainfall data, and much of the material incorporated in the review of the weather, has been provided by the Meteorological Office. For historical comparisons of the rainfall over England and Wales a data set based upon the homogeneous series derived by the Climatic Research Unit of the University of East Anglia has been used.

Most of the rainfall data published in the Hydrological data: UK series are in the form of monthly rainfall totals for catchment areas (see page 56). For details of monthly and annual rainfalls associated with individual raingauge sites reference should be made to the 'RAINFALL' series published regularly by the Meteorological Office. Brief details of the contents and availability of this publication, together with a short description of other rainfall and climatological data sets published by the Meteorological Office, are given below..

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

The special article concerning Captain McClean is published with the permission of the University of St Andrews. A proportion of the early historical information for the feature on surface water surveying was provided by the Public Records Office with whose permission this material is published. The help and advice given by Dr R. W. Herschy during the preparation of this article is gratefully acknowledged.

The practice, followed in Surface Water : United Kingdom publications, and earlier yearbooks, of publishing river water temperature data has been discontinued. Monitoring of water quality, including temperature, is primarily the responsibility of the Water Authorities and the River Purification Boards. Some temperature data are held by the Department of the Environment in association with the Harmonised Monitoring Scheme (contact WQ5, Room A4.26, Romney House, 43 Marsham Street, London, SW1P 3PY, telephone: 01-212-6902).

Rainfall and Climatological Data

The Meteorological Office maintains the national archives of rainfall and climatological data at its headquarters at Bracknell. Specific items, such as daily and hourly rainfalls from gauges and radar (from the PARAGON system) may be obtained by application to the Advisory Services Branch Met. O3. Summaries of the data are also published regularly and a list of current titles is given below:

1. *Monthly and Annual Totals of RAINFALL 19__ for the United Kingdom.*
   This contains the values for some 5000 raingauges and is available one year after the title year at a cost of £6.00.
2. *Snow Survey of Great Britain 19__*
   This contains the daily and monthly reports of snow conditions from selected stations covering the winter and costs £3.00.
3. *Monthly Weather Report*
   This is published monthly and contains climatological means for more than 550 UK observing stations; in addition, an introduction and annual summary are produced yearly. The publication should be available 6 to 9 months after the month concerned; it costs around £2 and is only available from Her Majesty's Stationery Office (HMSO) or their stockists.
4. *M.O.R.E.C.S.*
   This is a weekly issue of maps of evaporation and soil moisture deficit and the weather variables used to calculate them. The data are used to provide values for 40 km squares shown in map form and the publication consists of different sets of maps according to customer requirements.

Further information about these and other publications may be obtained from:

Meteorological Office Met O3
London Road
Bracknell
Berks RG12 2SZ

Summary

1985 was the third year in succession for which the United Kingdom rainfall total closely equated to the long-term average. The spatial distribution was also typical but, in common with a number of recent years, the seasonal distribution was unusual. Contrary to the tendency, evident over the preceding decade, for drier summers to be coupled with wet spring – or autumn – periods, a notable feature of 1985 was the exceptionally wet summer and early autumn. Over many areas, particularly in Scotland, June-September was the wettest such period on record providing a further example of the rather erratic climatic conditions which have characterised the recent past. Table 1 provides a listing, for the U.K., of the 10 highest and 10 lowest seasonal rainfall totals this century. Notwithstanding the rather arbitrary nature of the conventional seasonal divisions, the prominence of years in the period 1975–85 testifies to the high relative frequency of exceptionally wet, or exceptionally dry, springs, summers and autumns in recent years. The seasonal rainfall totals for Scotland alone are also particularly notable. The two wettest, and three of the five driest July-August periods have occurred since 1975; five of the eight wettest autumns have also been recorded over this period. The abnormally high summer, and early autumn, rainfall in 1985 contrasts markedly with the spring and summer drought experienced in 1984. This contrast achieved its most extreme expression in parts of eastern Scotland where the drought had an estimated return period exceeding 150 years whereas the rainfall for June-September 1985 is unsurpassed in a record extending back, at a few sites, to the early years of the nineteenth century.

The rainfall pattern throughout the United Kingdom, relative to the 1941–70 average, is illustrated in Figure 1. Considerable uniformity is evident with most areas registering between 85 and 110 per cent of mean rainfall. Somewhat higher values typify southern and eastern Scotland and a zone of rainfall deficiency may be traced from south Lancashire across the Pennines into Yorkshire and Lincolnshire. Some tendency for local deficiencies to coincide with major reservoir gathering grounds may be recognised, for instance in the Lake District and the southern Pennines but the scale of the deficiencies were not large and posed little threat given the integrated nature of most modern water resource systems. Actual rainfall amounts (Figure 2) conformed to the normal pattern with an overall range extending from the 4503 mm registered by the Crib Goch raingauge, in Snowdonia, to less than 480 mm recorded for a few sites adjacent to the Thames estuary and for several localities in Bedfordshire and Cambridgeshire.

TABLE 1 SEASONAL RAINFALL TOTALS FOR THE UNITED KINGDOM 1900–85

	Winter (Dec-Feb)		Spring (Mar-May)		Summer (Jun-Aug)		Autumn (Sep-Nov)	
Rank	Year	mm	Year	mm	Year	mm	Year	mm
1	1914	454	1979	337	1912	388	1935	466
2	1915	427	1947	328	1956	362	1954	454
3	1936	405	1983	307	1985	351	1981	447
4	1959	396	1913	303	1927	341	1984	441
5	1983	394	1981	297	1958	333	1982	429
6	1919	379	1920	295	1980	333	1976	419
7	1924	378	1967	292	1903	332	1960	418
8	1911	372	1932	280	1931	327	1903	414
9	1973	372	1903	275	1946	322	1944	410
10	1922	368	1963	271	1954	311	1938	402
Average (1941–70)		294		214		263		319
77	1908	218	1980	159	1925	182	1956	233
78	1943	218	1900	158	1921	179	1955	230
79	1952	215	1918	158	1975	179	1945	228
80	1939	214	1936	151	1947	172	1933	223
81	1904	211	1984	148	1949	164	1915	221
82	1931	205	1944	147	1984	144	1921	208
83	1928	200	1938	143	1955	141	1937	207
84	1962	177	1929	129	1983	133	1972	206
85	1933	159	1974	128	1913	131	1904	205
86	1963	122	1956	127	1976	104	1922	190

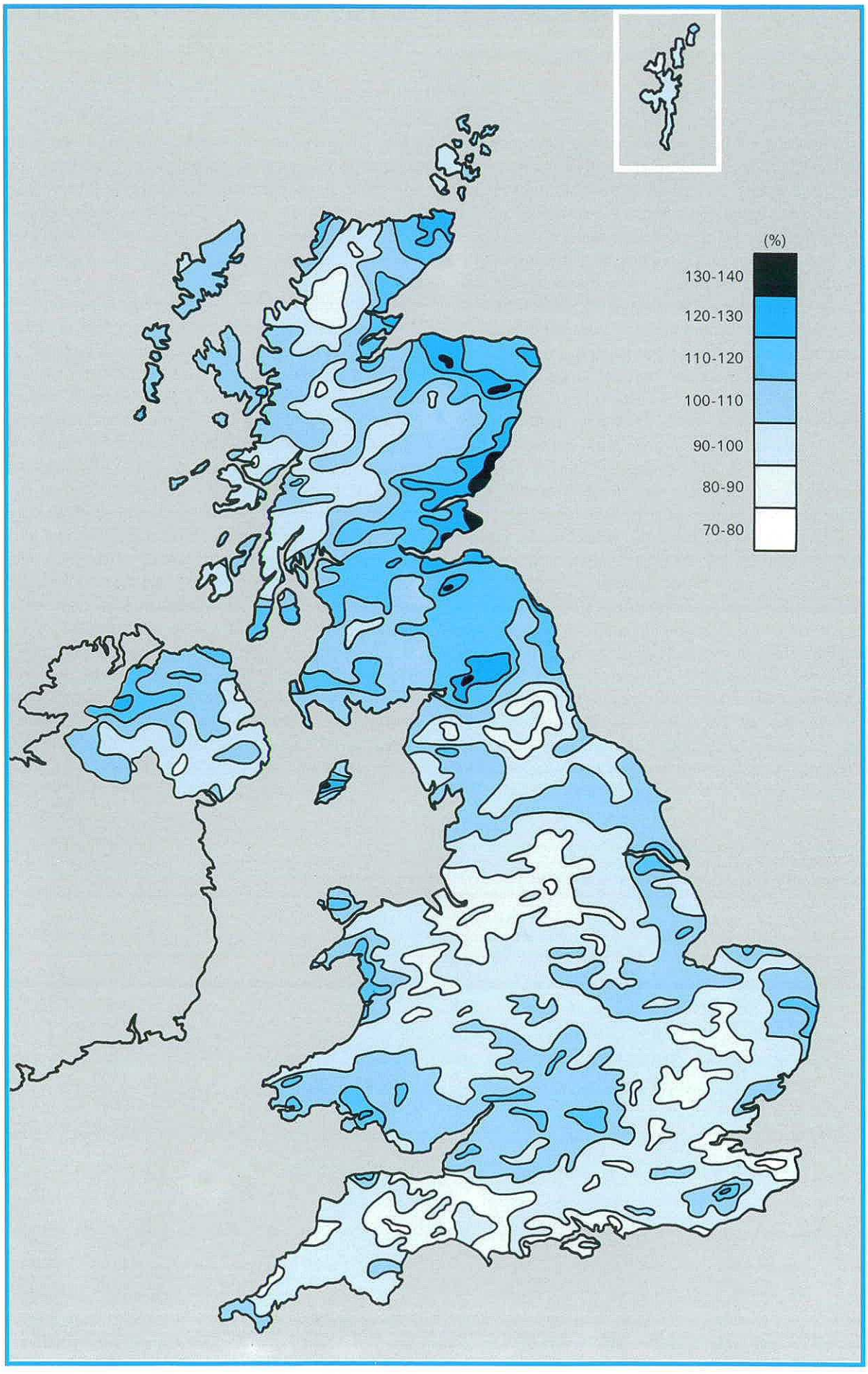


Figure 1. 1985 Annual rainfall as a percentage of the 1941–70 average.

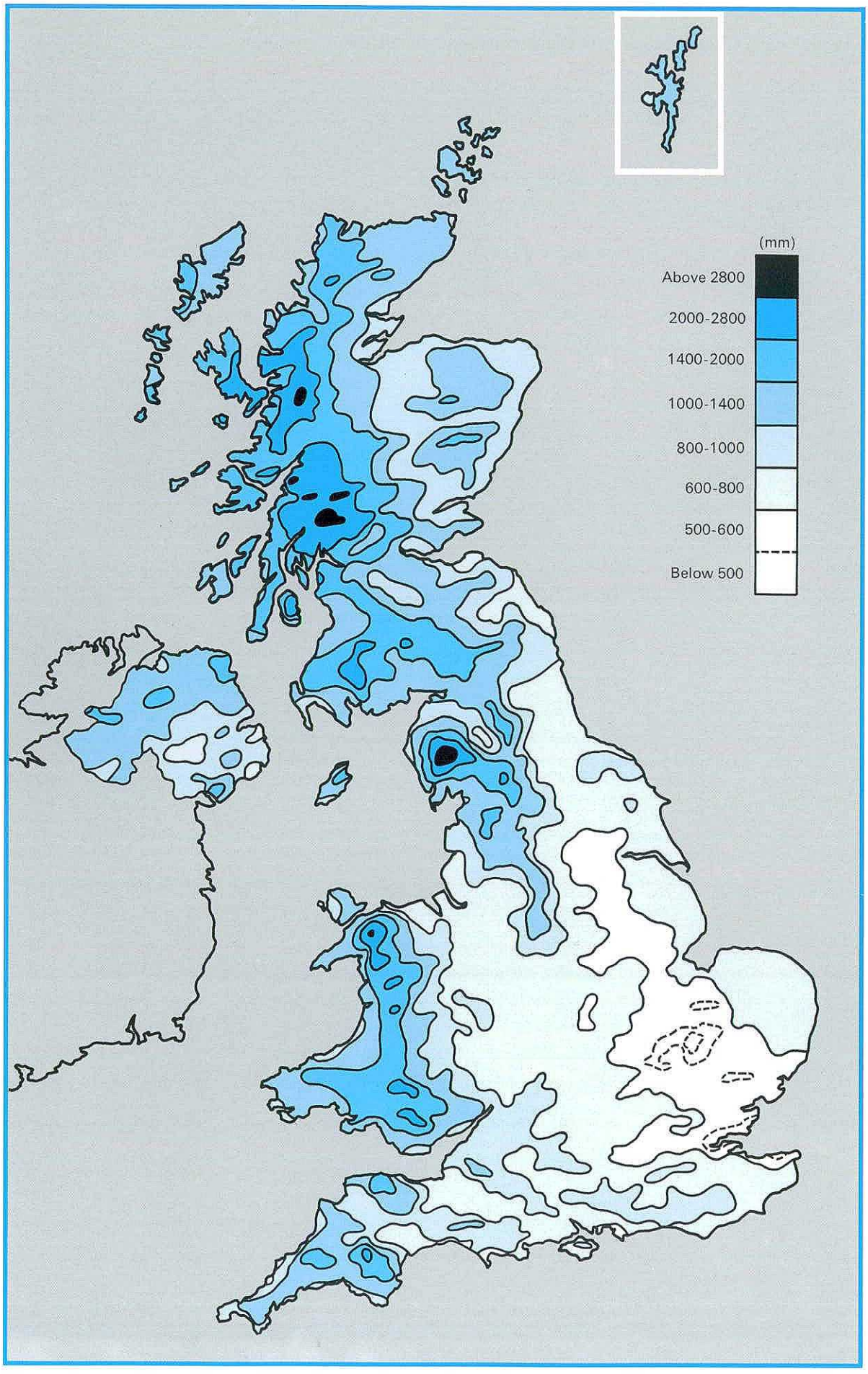


Figure 2. Annual rainfall in 1985.

TABLE 2 1985 RAINFALL IN MM AND AS A PERCENTAGE OF THE 1941-70 AVERAGE

		J	F	M	A	M	J	J	A	S	O	N	D	YEAR
United	mm	76	35	77	83	68	90	106	155	102	60	98	147	1097
Kingdom	%	74	45	110	120	91	123	122	150	100	57	88	130	101
England and	mm	72	29	66	70	65	94	73	117	46	48	77	128	885
Wales	%	84	45	112	121	97	154	100	130	55	58	79	142	97
Scotland	mm	85	47	95	110	73	84	167	224	200	85	141	193	1504
	%	62	45	103	122	80	91	149	174	146	57	99	124	105
Northern	mm	76	38	86	76	74	73	118	183	156	49	86	98	1113
Ireland	%	73	51	123	112	101	92	127	178	146	46	84	86	102
North West	mm	70	19	80	101	69	74	123	184	131	68	105	167	1191
Water	%	63	23	111	131	84	89	119	147	107	58	87	139	98
Northumbrian	mm	87	13	85	68	70	60	100	126	93	27	86	92	907
Water	%	109	20	163	124	109	98	130	125	118	36	91	123	103
Severn Trent	mm	50	32	49	63	70	101	57	81	21	49	70	97	740
Water	%	72	60	94	121	109	180	88	100	31	75	89	139	96
Yorkshire	mm	80	7	60	80	75	53	78	106	46	43	81	95	804
Water	%	104	11	113	143	123	91	111	118	64	62	91	128	97
Anglian	mm	56	11	42	44	60	100	52	55	16	21	56	84	597
Water	%	108	26	105	110	128	204	91	86	31	40	90	158	98
Thames	mm	54	33	47	38	69	111	52	77	17	29	48	107	682
Water	%	87	70	102	83	123	213	87	110	27	45	66	162	97
Southern	mm	70	31	60	48	51	76	51	112	18	29	67	120	733
Water	%	92	54	115	100	93	152	86	153	25	37	71	148	92
Wessex	mm	74	47	60	51	47	87	57	113	32	44	49	153	814
Water	%	88	80	103	94	69	161	92	138	41	54	51	170	94
South West	mm	116	48	107	95	57	94	65	157	54	65	84	176	1118
Water	%	90	53	127	134	68	145	77	155	52	57	63	130	94
Welsh	mm	92	53	97	111	75	137	98	199	63	97	118	206	1346
Water	%	68	55	111	129	82	167	103	167	50	75	83	142	101
Highland	mm	99	65	105	139	77	88	166	235	200	116	175	235	1700
R.P.B.	%	60	49	92	122	75	80	131	159	127	62	103	120	99
North East	mm	97	19	80	85	86	117	114	151	110	28	136	99	1122
R.P.B.	%	107	26	129	139	112	167	124	141	126	29	132	97	110
Tay	mm	87	32	77	95	74	82	147	211	173	68	113	184	1343
R.P.B.	%	74	35	94	127	78	99	144	179	150	56	95	137	107
Forth	mm	56	30	81	84	62	65	173	187	217	51	98	169	1273
R.P.B.	%	57	39	117	123	74	87	177	161	201	48	91	155	114
Clyde	mm	69	58	94	109	61	73	234	291	283	99	134	223	1728
R.P.B.	%	43	51	89	106	63	71	180	205	162	54	80	120	104
Tweed	mm	76	15	103	77	66	69	150	160	151	46	77	131	1121
R.P.B.	%	82	22	177	126	87	101	169	140	162	52	74	146	112
Solway	mm	75	34	96	101	75	83	167	273	243	81	136	178	1542
R.P.B.	%	54	37	105	115	81	92	152	210	161	56	94	118	108
Western Isles	mm	86	69	105	114	64	41	111	170	129	91	164	186	1330
Orkney and	%	63	67	114	137	94	54	132	181	102	63	120	121	103
Shetland														

Table 2 provides a breakdown of monthly rainfall in 1985 both on a countrywide basis and according to the major administrative divisions within the water industry (see frontispiece). Rainfall is normally fairly evenly distributed throughout the year with a tendency to an autumn maximum in the more maritime regions to the west. The persistent – rather than heavy – rain which was sustained throughout most of the summer in 1985 resulted in a distinct summer maximum. United Kingdom summer rainfall was the highest since 1956 and ranks third this century. Scotland exceeded its previous highest summer rainfall total by more than 30 mm and was substantially wetter than the 420 mm recorded in 1980 – a record this century prior to 1985.

The uneveness of the rainfall distribution in 1985 may be gauged in relation to the total rainfall over the July-September period; in Northern Ireland the three-month total is comparable with the combined rainfall total for the preceding winter and spring; the Scottish July-September total comfortably exceeded the winter and spring precipitation. Below average rainfall throughout much of southern England during July resulted in the summer rainfall total for England and Wales being less conspicuous. Nonetheless the total rainfall for the summer half-year (April-September) was significantly greater than normal and closely approached the winter half-year total. The long term mean ratio between winter and summer rainfall is 1.16:1. The summer of 1985 brought to an end a sequence of 8 years when this ratio has been exceeded; this sequence is unprecedented in the England and Wales rainfall record which starts in 1766. The exceptional nature of the mid-year rainfall in 1985 was given greater emphasis by the dry conditions prevailing both at the beginning of the year and in the autumn. September to November was particularly dry in the English lowlands and precipitation over the preceding winter (December-February) was only three-quarters of the average throughout most of the United Kingdom; England and Wales and Northern Ireland recorded their driest winters since 1975.

Annual potential evaporation (PE) in 1985 was within a few percentage points of the 1956–75 average throughout much of the United Kingdom (Figure 3). Relatively low PE totals were recorded in Northern Ireland and southern Scotland whereas parts of southern England, especially in Devon and Cornwall, were significantly above average. Although, in most regions, the availability of soil moisture was only a limiting factor for relatively short periods during 1985, the dull and overcast conditions were not conducive to high rates of actual evaporation (AE). Generally, actual evaporative losses were normal in most areas. The development and decay of soil moisture deficits (SMDs) was erratic and very dissimilar from the normal pattern of gradually increasing deficits from the spring reaching a peak in early autumn. 1985 was characterised by relatively modest SMDs in all regions with maximum deficits considerably below average – a sharp contrast to the large deficits recorded in 1983 and 1984.

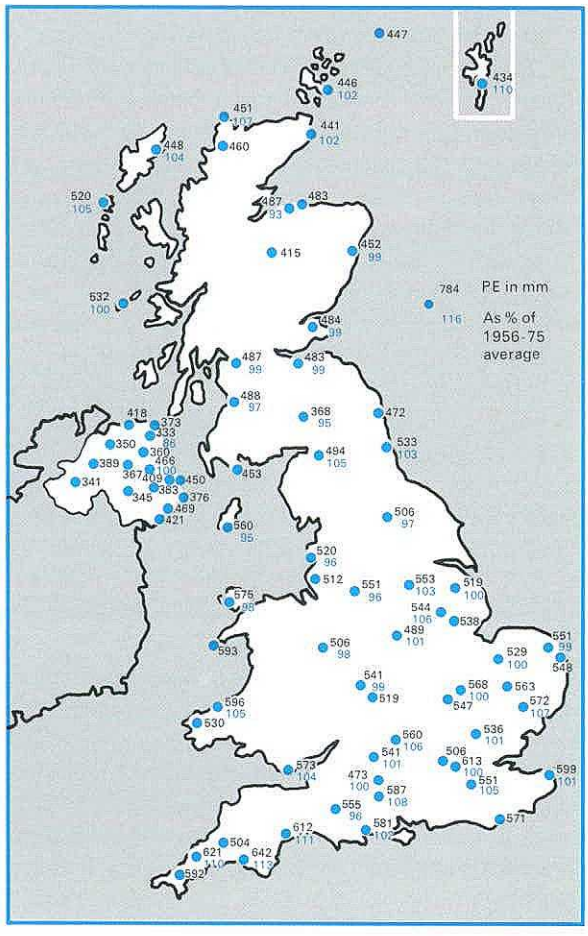


Figure 3. Potential evaporation in 1985 – in mm and as a percentage of the long term average.

The Weather in 1985

January was a month of cold and mainly unsettled weather, with considerable spatial variation in precipitation amounts. Mean temperatures were below the monthly average over the whole of the United Kingdom and all regions received snowfall at times. In southern Britain the first wintry spell began on the second day of the year and continued to the 19th. A combination of strong winds and snow caused substantial drifts in Kent and East Anglia over the first week and in Wales and the West Country between the 17th and 18th. On the 20th, warm air from the Atlantic brought a sudden thaw to the south of Britain. This together with heavy rainfall resulted in widespread flooding; Devon, Sussex and Kent were worst hit. Scotland and northern England remained cold throughout January; snow together with strong winds blocked roads in many regions. In eastern areas of Scotland, the east coast of England and in Devon and Cornwall monthly precipitation – much of which fell as snow – was above average. East

Anglia for example received greater than 150 per cent of the average precipitation for January, whereas most western areas were comparatively dry, with parts of Cumbria, western Scotland and North Wales having less than 50 per cent. Overall, Scotland and Northern Ireland both recorded less than 75 per cent of the mean monthly precipitation.

Mainly mild, drizzly weather persisted during the first week of February throughout the United Kingdom. The following week became cold and Wales and the Midlands, in particular, experienced heavy falls of snow. From the 11th, Scotland came under the influence of a ridge of high pressure which subsequently extended over the whole of the United Kingdom. Some districts recorded almost three weeks without rain. At Scarborough only 1 mm was measured during the whole month and Inverness had a completely dry two weeks from the 3rd of February. In the latter part of the month northern and western areas were affected by frontal systems but despite this England, Scotland and Northern Ireland only recorded 42, 45 and 51 per cent of their normal February rainfall respectively.

The Winter period (December to February), was the driest for ten years in Wales and Northern Ireland. At the beginning of 1985 soils were at, or close to, field capacity everywhere apart from eastern and southeast England. As a consequence of the dry weather conditions during February, modest soil moisture deficits became established considerably earlier than normal. By the end of the third week deficits of 10–12 mm had developed in some coastal areas as far north as the Humber Estuary. Soils returned to field capacity as a result of rainfall at the end of the month.

March was dominated by cold unsettled weather. On the 13th a northwesterly airstream brought strong winds and widespread snow to all areas. The cold weather continued for nearly two weeks. Towards the end of the month a mild Atlantic airstream became established over the United Kingdom resulting in a wet unsettled spell. At Waen Sychlwch, in the Brecon Beacons, a rainfall total of 400 mm was recorded in the fortnight commencing 29th March; 114 mm of this fell during the first day. Scotland received average rainfall for the month, but spatial variation was large; for example the Edinburgh area recorded twice the average March rainfall whereas western Scotland was dry, with under 70 per cent of the normal monthly total.

High winds at the end of the first week in April combined with a spring tide resulted in flooding causing disruption to road communications in coastal areas of Hampshire and West Sussex. From the 15th, high pressure affected southern Britain giving generally dry conditions over England and Wales, although brief snow showers occurred on the 26th and 27th. April rainfall in England was 63 mm (119 per cent of the average), a contrast to the very dry April of 1984 when rainfall totalled only 10 mm, and the very wet one in 1983 (108 mm). Scotland experienced generally unsettled weather throughout the month, especially the far north which was affected by a sequence of troughs or depressions. It was the wettest April for 8 years; over the past 5 years April rainfall totals in Scotland have all been below the average, often by a considerable margin. The United Kingdom as a whole, received 120 per cent of the average rainfall for the month and Wales was particularly wet.

Parts of southern England had little or no rain for the first eleven days in May, whereas in eastern Britain falls of 33 mm at Whitby and 27 mm at Aberdeen were recorded on the 8th. Six days later a depression moving north-west across England resulted in falls exceeding 30 mm from the South Downs to the Lake District. Severe localised thunderstorms developed throughout southern Britain on the 20th; 50 mm of rain was recorded in two hours at Brize Norton, west of Oxford, and daily totals of 43 mm were recorded at several raingauges in Cambridgeshire.

The wetter than average spring over the United Kingdom caused soil moisture deficits generally to remain below normal, rising only slowly during April and May. Although only modest deficits were attained by May, in some regions - notably central Wales, parts of Devon and several districts in Scotland - they were to prove the maximum SMD value for the year.

At the beginning of June a thundery low moved into southern England; 40–50 mm of rain fell in a three-day period causing flooding in the Thames Valley and disrupting traffic. Water over half a metre deep also flooded the centre of Bournemouth after a hailstorm on the 7th, causing thousands of pounds of damage to commercial premises. By the end of the first week, many places in southern and eastern Britain had already exceeded their average rainfall for the whole month. Wales and the Northwest experienced particularly heavy falls for the week beginning the 5th, for instance Dolydd in Powys recorded 49 mm of rain on the 11th. A thundery spell again affected southern England during the 19th to the 26th. At Balsham, Cambridgeshire 91 mm was registered on the 19th. This daily total has an estimated return period of approximately 1 in 275 years; qualifying as 'very rare' according to the Meteorological Office's classification (a list of 'very rare' events during 1985 is given in Table 3); Bastreet in Cornwall received 46 mm on the following day. Waterlogged land delayed the harvesting of new potatoes and early soft fruit in the south and, in eastern areas, localised thunderstorms badly damaged cereal crops.

The June rainfall pattern was largely reversed in July. Much of the southern half of Britain received below average precipitation, whereas Scotland recorded the second wettest July since records began; the monthly rainfall total of 167 mm has been

TABLE 3 'VERY RARE' DAILY RAINFALL TOTALS IN 1985

Date (Rain-day)	Station Number	Name	Grid Reference	Amount (mm)	Return Period (1 in x years)*
19.06.85	183969	Balsham, Lower Farm	TL 582509	91.1	280
25.07.85	947988	Dungannon Park	IH 802606	87.5	210
26.07.85	882741	Strathallan School	ND 090185	81.6	210
26.07.85	899481	Edinburgh, Silverknowes	NT 211760	78.9	220
26.07.85	899894	Edinburgh, Hillview Road	NT 194734	75.4	170
26.07.85	899958	Edinburgh, Blinkbonny	NT 227741	84.1	280
26.07.85	899979	Edinburgh, Royal Botanic Garden	NT 245755	82.1	270
26.07.85	900093	Edinburgh, Blackford Hill	NT 258706	81.9	190
26.07.85	900221	Liberton, Alnwick Hill	NT 272687	79.8	160
26.07.85	900959	Roseberry	NT 308570	90.9	250
26.07.85	901314	Gourlaw Filters	NT 283612	84.3	200
29.09.85	890532	Gargunnock, Watson House	NS 692945	90.1	200
06.10.85	574339	Swinden Lower	SD 885334	112.2	220

*Based on the methods and findings of the Flood Studies Report Vol II[1] (as implemented on the Meteorological Office computer[2]) whereby a return period can be assigned to the catch at a particular raingauge. Those exceeding a 160 year return period are classified as 'very rare' events (the return periods given in Table 3 have been rounded to the nearest 10 years).

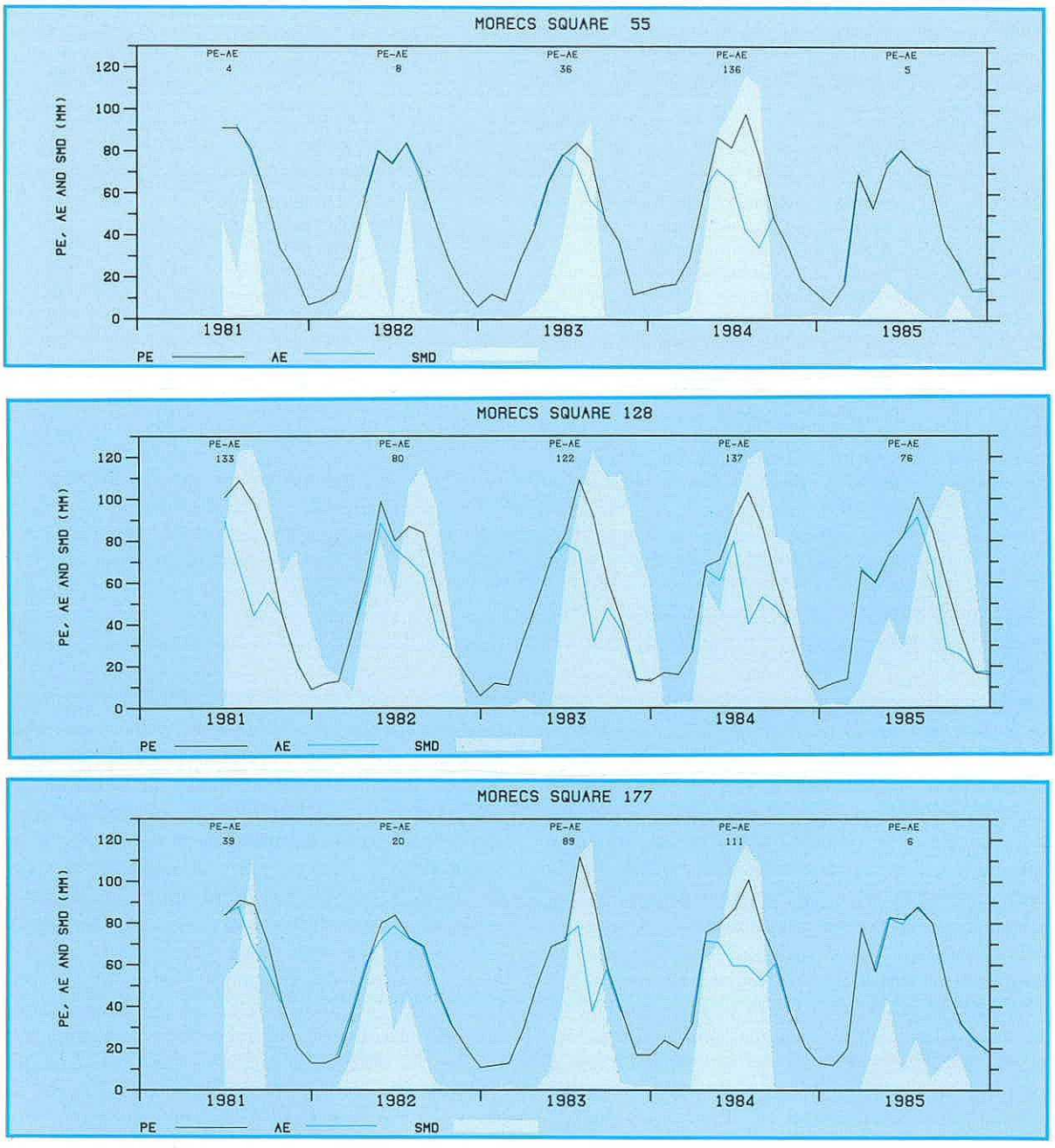
[1]Flood Studies Report 1975. Natural Research Council (5 Vols).

[2]Keers J.F. and Westcott P. 1977. A computer-based model for design rainfall in the United Kingdom: Meteorological Office Scientific Paper No. 36.

exceeded only in 1940. The 2, 3, 4 and 5 month rainfall totals beginning in July were also remarkable, being unsurpassed in the 116 year rainfall record for Scotland. Most of southern England was dry for the first 10 days in the month, although intense localised thunderstorms affected East Anglia and the Southeast on the 5th when an area of low pressure moved northwards from Spain. The heaviest rainfall associated with this thundery activity measured 60 mm at Southrepps, near Cromer, and at Honnington in Sussex 41 mm was recorded in 90 minutes. One of the most memorable storms occurred at Wimbledon where an estimated 37 mm of rain fell in a 20 minute period. Play at the All England Tennis Championships was interrupted; however, radar trekking of the storm, by the Meteorological Office, enabled sufficient warning to be given and the Centre court was covered in advance of the downpour. Even more noteworthy, in meteorological terms, were the storms which occurred between the 25th and 26th. A number of the daily totals, for raingauges in Northern Ireland and southern Scotland, especially in the Edinburgh area, qualified as 'very rare'. Only the southwest and central districts of the United Kingdom were unaffected. Scotland experienced its wettest day of the year on the 26th. In Northern Ireland the July rainfall total of 118 mm was the highest since 1960, ending a four-year sequence of below average July rainfalls.

Unsettled weather continued into August. In Scotland and Northern Ireland it was the wettest August on record; England and Wales recorded their highest monthly rainfall totals since 1962 and 1950 respectively. Rainfall totals for August in 1983 and 1984 rank as the 5th and 6th driest in Scotland, when 50 mm and 51 mm were recorded respectively, a marked contrast to the 224 mm recorded during 1985. Low intensity rainfall was a persistent feature throughout the month and only in parts of southern and eastern Britain were dry interludes of a maximum of 5 consecutive days reported. Swansea recorded a monthly total of 243 mm, the wettest August since the start of records in 1908; Eskdalemuir (Dumfries and Galloway) registered 235 mm, the wettest on record since 1911. A depression crossing the British Isles on the 23rd and 24th resulted in widespread rainfall - the 23rd of August was the wettest day of the year over Britain. In Scotland, the combined July and August rainfall total of 391 mm exceeded the previous maximum by 70 mm, again this contrasted with 1983 and 1984 when the two-month rainfall totalled only 94 mm and 105 mm respectively. Rainfall over the summer period (June-August) was 475 mm; the highest in the period for which nationwide averages are available. This compares with 171 mm and 180mm for the previous two years which rank as the 6th and 7th driest years on record. In Northern Ireland summer rainfall reached 374 mm, nearly three and a half times the amount recorded in 1983 and over twice that during the summer of 1984. England and Wales however, whilst very much wetter than the previous two years, had a drier three months than in 1980. The United Kingdom had its third wettest summer this century; 143 per cent of the normal summer rainfall was recorded, both the previous two years had less than 50 per cent.

Soil moisture deficits continued a gradual increase in the south and east of Britain, but due to the



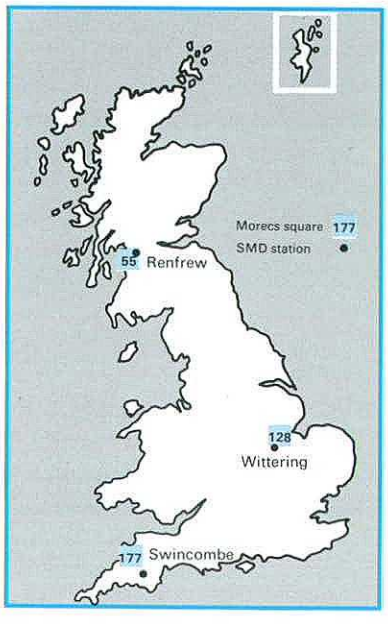


Figure 4. Potential and actual evaporation with soil moisture deficits for three MORECS squares.
(The location of the featured grid squares is shown on the map.)

wet summer period, deficits were generally much lower than normal. In Scotland maximum summer deficits were attained early – during June or July – and soils remained close to field capacity throughout August; the early summer SMDs were unsurpassed during the rest of 1985. Maximum SMD values were also recorded in northern, and parts of southern, Britain and on the west and south coast of Wales, during June or July. Figure 4 illustrates the variation in PE, AE, and SMD, for three MORECS (Meteorological Office Rainfall Evaporation Calculation System – see page 2) grid squares for the period 1981 to 1985. The wet July and August resulted in low SMDs during the summer and a similarity in magnitude of PE and AE. This contrasts greatly with the dry conditions experienced in the previous year when SMD values were high and there was a significant shortfall of AE below PE.

September was characterised by very large regional differences in rainfall amounts. Cool and wet weather continued into the month with heavy rain in northern and western areas. After the 4th a ridge of high pressure brought mainly dry and settled weather to southern Britain; England and Wales experienced the driest September for 6 years. However, in Scotland and northern regions of England intense rainfall was associated with thunderstorm cells moving slowly inland from the North Sea; from the 18th to the 22nd many places had the equivalent of the monthly average rainfall. Streets in Glasgow were flooded on the 22nd following torrential rain; 76 mm was received in 24 hours and further storms forced the closure of the five main roads leading to the Scottish Highlands. It was the twelfth consecutive September with above average rainfall in Scotland. Western regions were particularly wet; at Paisley, for example, the monthly total of 288 mm is the highest September rainfall since observations began in 1885.

A measure of the unsettled conditions throughout the summer and early autumn in Scotland is the July to September rainfall of 591 mm which exceeds the previous maximum rainfall for the same period by 70 mm. Northern Ireland registered a new record August to September rainfall total – 339 mm – and the periods June to September and July to September both rank as the second wettest receiving 530 mm and 457 mm respectively.

The first ten days of October featured several spells of heavy rainfall over the United Kingdom. On the 6th, 114 mm was recorded at Waen Sychlwch in the Brecon Beacons. The Swinden Lower raingauge in Lancashire recorded a daily total of 112 mm, an event with a return period of approximately 1 in 215 years and 57 mm fell in 11 hours at Kirklangley, Derbyshire. The rest of the month was dry and sunny; despite the conditions at the start of the month the United Kingdom rainfall total of 60 mm was only just over half the October average. In contrast to the previous month, Northern Ireland recorded only 49 mm of rain; the driest October for 33 years. Scotland had its driest October for a decade.

The dry spell was interrupted early in November with the majority of the rainfall for the month occurring between the 4th to 9th. By the following day a cold northerly airstream became established and limited falls of snow and sleet were evident over most of the United Kingdom with the exception of southern Britain. These wintry conditions persisted until the last few days of the month when milder air and rain spread over most of the country.

The soil generally remained at field capacity in Scotland during the autumn months, although some deficits occurred as drier conditions prevailed in October. In England the autumn was relatively dry and most areas experienced deficits throughout the three months, eastern regions in particular recorded high deficits. Figure 5 illustrates the maximum SMD values attained during 1985. Also shown is the month in which the maximum occurred; this varied greatly across the country, a reflection of the unusual seasonal distribution of rainfall throughout the United Kingdom. Soil moisture deficits declined from a late spring peak in western Scotland whereas, as a result of the wet summer and dry autumn, extensive areas of central and southeast England recorded maximum deficits as late as October or

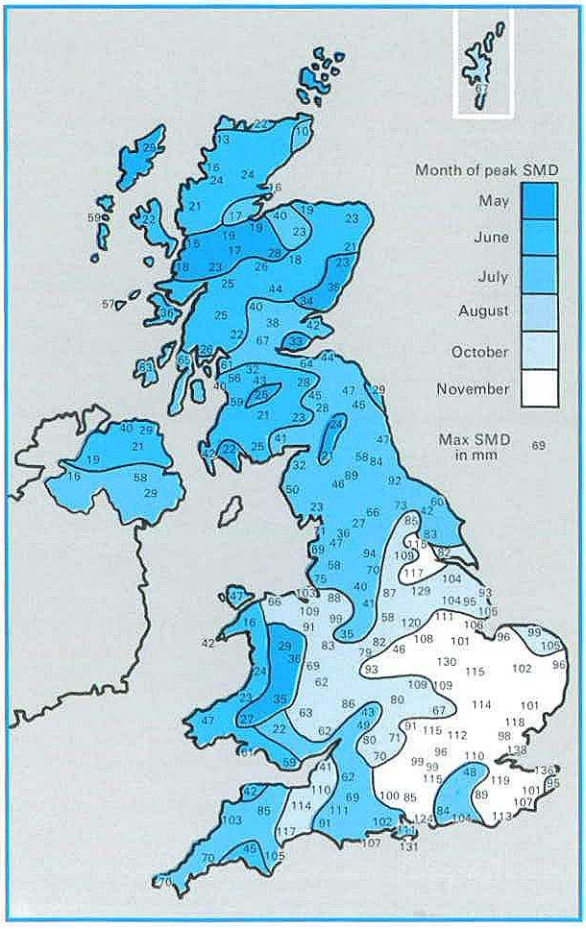


Figure 5. Estimated maximum soil moisture deficits – and the corresponding month of occurrence – in 1985.

November. In most regions the maximum deficits recorded were substantially less than in the previous two years. Values of just greater than 100 mm were registered in the south and southeast of England whereas, in 1984, deficits of greater than 120 mm occurred over approximately two-thirds of the British Isles, reaching values of almost 140 mm in the Thames Valley.

December was characterised by a sequence of dry and wet spells. In Scotland and northern England the 12th–20th was an extremely wet period. Rainfall, associated with a slow-moving front, totalled 138 mm on the 20th at Honister Pass in Cumbria; the highest daily fall of the year throughout the United Kingdom. Flooding was reported in a number of towns and villages in Cumbria (see cover). In the south of England the six day period from the 21st was particularly wet, especially Christmas Day and Boxing Day when thunderstorms occurred as a depression approached from the southwest. Emergency services were activated as hundreds of homes in Avon, Somerset, Wiltshire and Gloucester were flooded. Extensive areas of farmland were under water and many roads impassable. The highest daily falls were registered in Exton (Somerset) when 67 mm fell on the 25th, and Ulcombe (Kent) received 55 mm on Boxing Day. Rainfall for the month was about 150 per cent of the mean in most of southern and eastern England but below average in Northern Ireland, northeast England and northeast Scotland. Temperatures fell toward the end of the month and heavy snowfalls occurred from Norfolk northwards. Whitby in Yorkshire was cut off by drifts. By the 30th milder weather broke this short wintry spell.

Summary

Runoff in 1985 for Great Britain totalled approximately 660 mm, some five per cent above the long term average. Although runoff in 1983 and 1984 was only marginally greater than normal, the 1985 total extends the sequence of above average annual runoffs to nine years. The tendency towards relatively high annual runoff rates in recent years has been particularly marked in Scotland. Figure 6 compares annual runoff totals for three British catchments over the period 1976–1985 with the average for the preceding record. Over the last decade the Clyde and the Tay both show a substantial increase in relation to the pre-1976 mean; the increase exceeds 20 per cent for the period 1981–1985. This trend toward greater runoff volumes has, typically, been accompanied by a noticeable volatility in the river flow patterns. Very high flows, especially in the autumn together with abnormally low summer discharges typified the decade beginning in 1975. By contrast, the main features of the distribution of river flows in 1985 were the inordinately high runoff totals registered in the late summer and early autumn – many new maximum two and three month runoff totals were established – and the sustained low flows which characterised much of lowland England during the late autumn. Although rivers were in spate for extended periods during 1985, the incidence of severe flooding was rather less frequent than normal.

Figure 7 provides a guide to runoff in Great Britain for 1985 expressed as a percentage of the period of record average. The map is based upon discharge data for some 420 gauging stations and is least precise in northern Scotland and in the Welsh mountains where the monitoring network is sparse. Insufficient long term river flow records exist for Northern Ireland (or for the Scottish islands) to allow the drawing of isopleths with any confidence. A significant degree of spatial variability is evident in Figure 7 with parts of eastern Scotland recording a runoff total more than 50 per cent above average, whilst large areas of southern England registered a significant shortfall – in some districts exceeding 20 per cent – relative to an average year.

The distribution of runoff throughout the year is illustrated in Figure 8(a-d). Daily and monthly hydrographs are shown for individual gauging stations in England, Scotland, Wales and Northern Ireland. The monthly mean flows are shown together with the corresponding maximum and minimum flows for the preceding record – the 1985 trace is shown as a solid black line and the solid blue line represents the 30-day running mean for the pre-1985 record. A virtual absence of the normal seasonal flow variation is the most prominent feature on the flow hyrographs. In a normal year summer flows are, typically, about 30–40 per cent of the corresponding winter discharges. This results, primarily, from the far greater hydrological effectiveness of winter rainfall; throughout the June-August period most of the rainfall is lost by evapotranspiration. The unusually wet nature of the summer in 1985 resulted in no diminution in flows at a time when sustained recessions are normally to be expected. The lack of conformity with the general pattern was well illustrated on the River Clyde (see page 108) where new maximum monthly mean flows were established in July, August and September; the combined July and August runoff has only been exceeded once – in the winter of 1982 – by any two month sequence. The contrast with 1984 was extreme particularly in Scotland where, on many rivers, the August flows were an order of magnitude greater than the

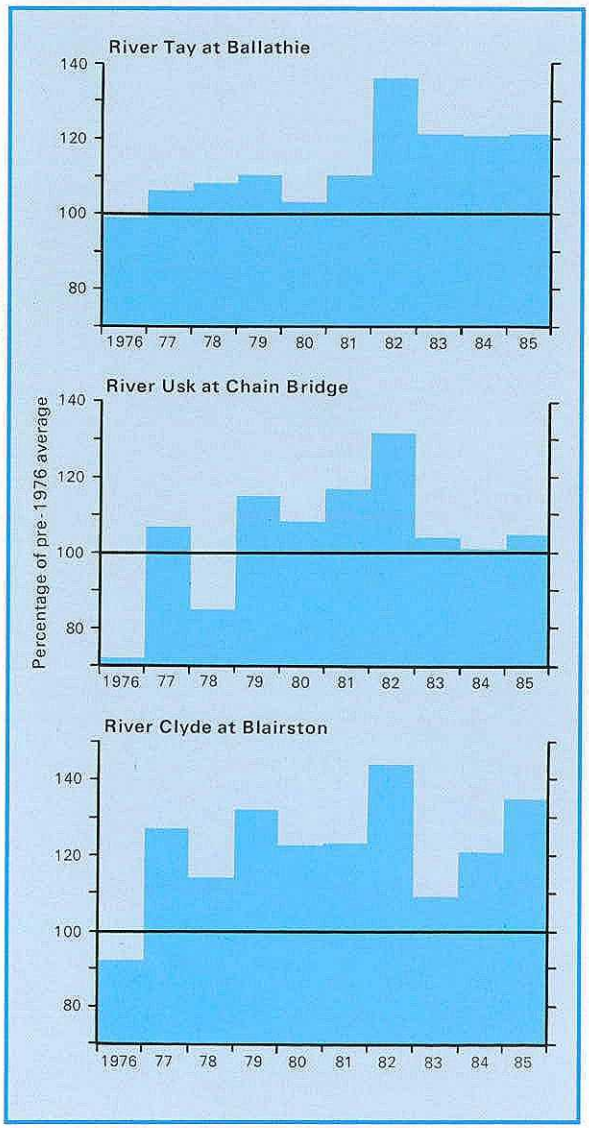


Figure 6. 1976–85 Runoff for selected catchments as a percentage of the pre-1976 average.

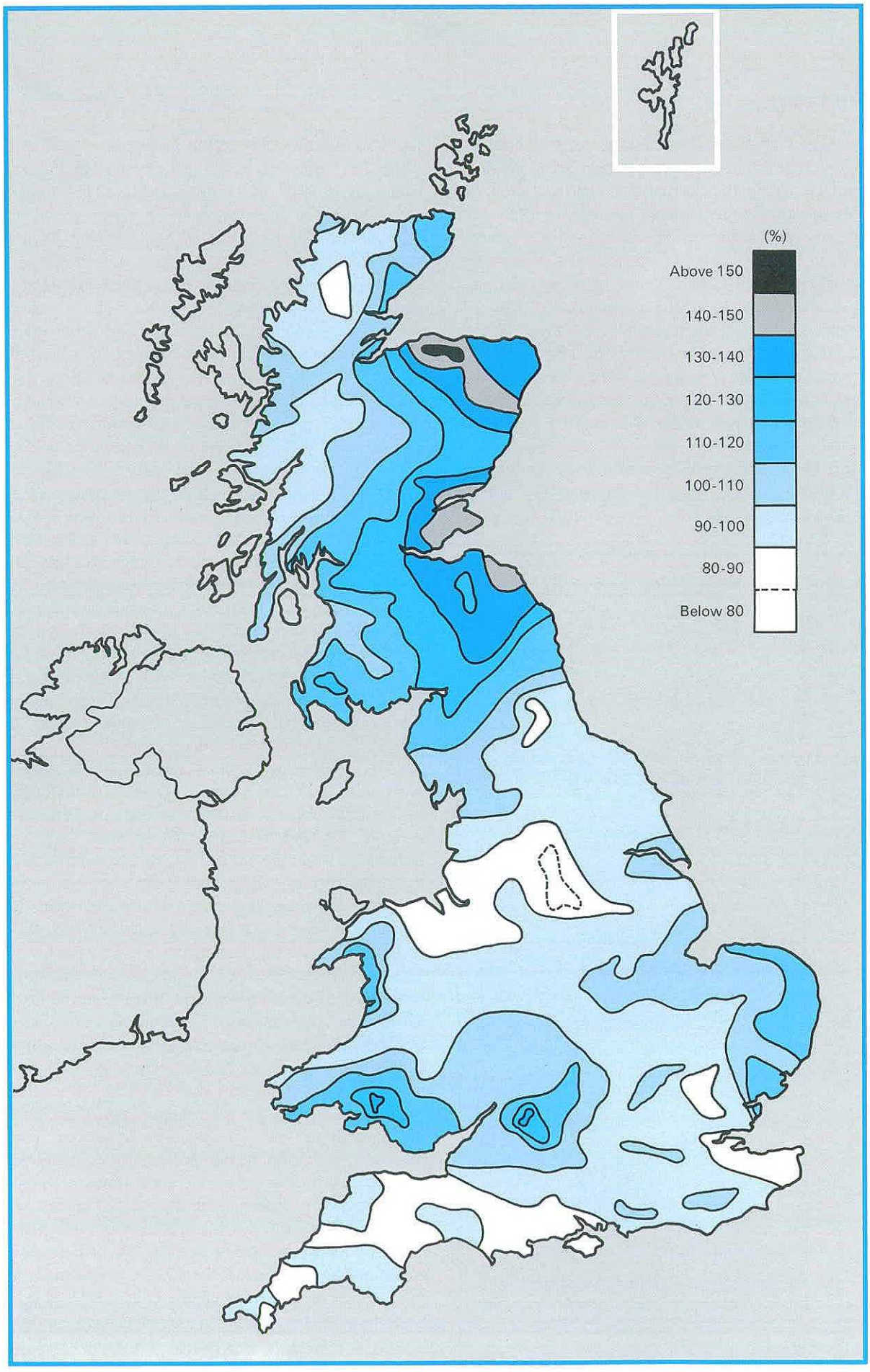


Figure 7. A guide to 1985 runoff expressed as a percentage of the long term average.

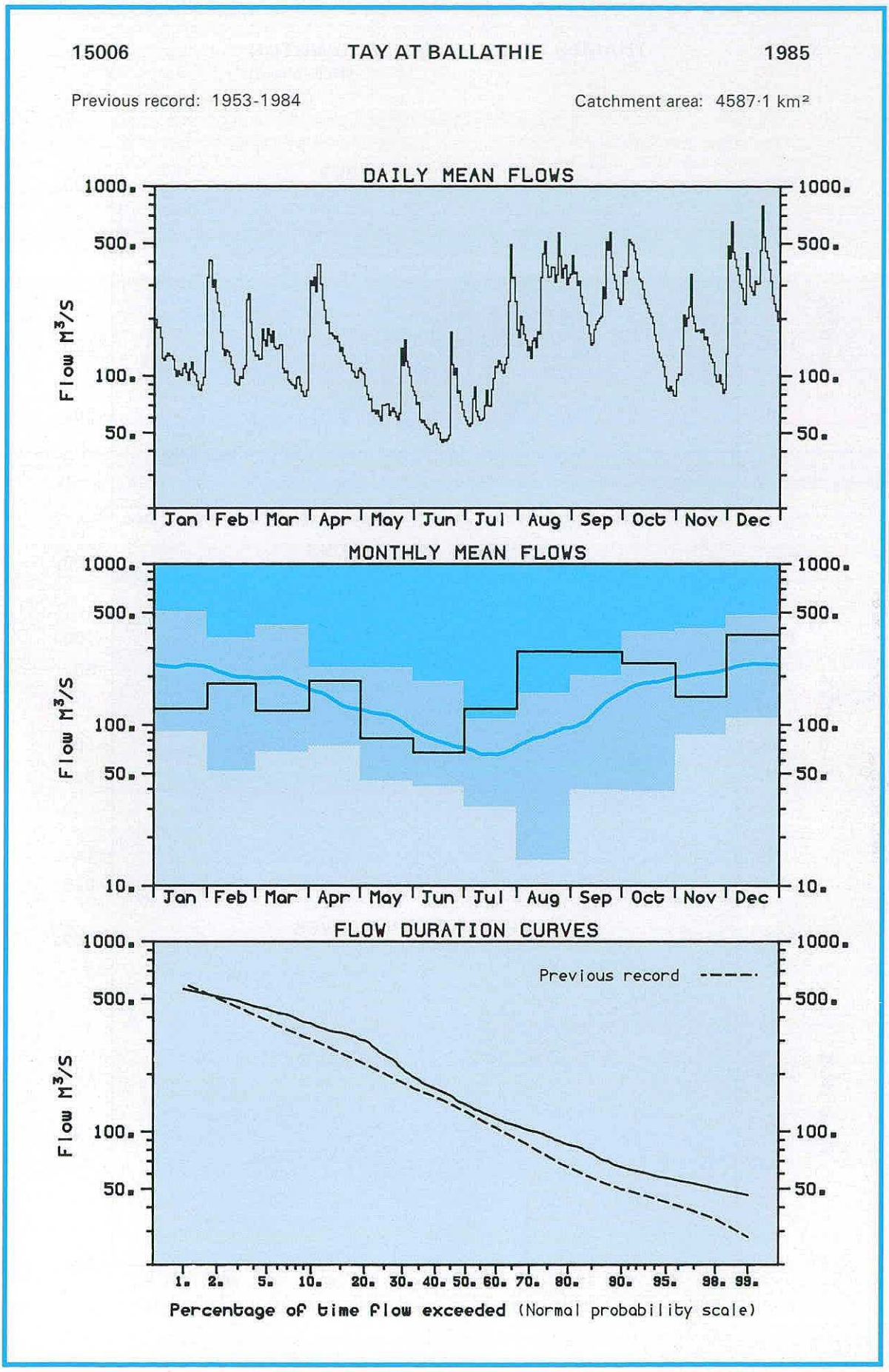


Figure 8a. River flow patterns: Tay at Ballathie.

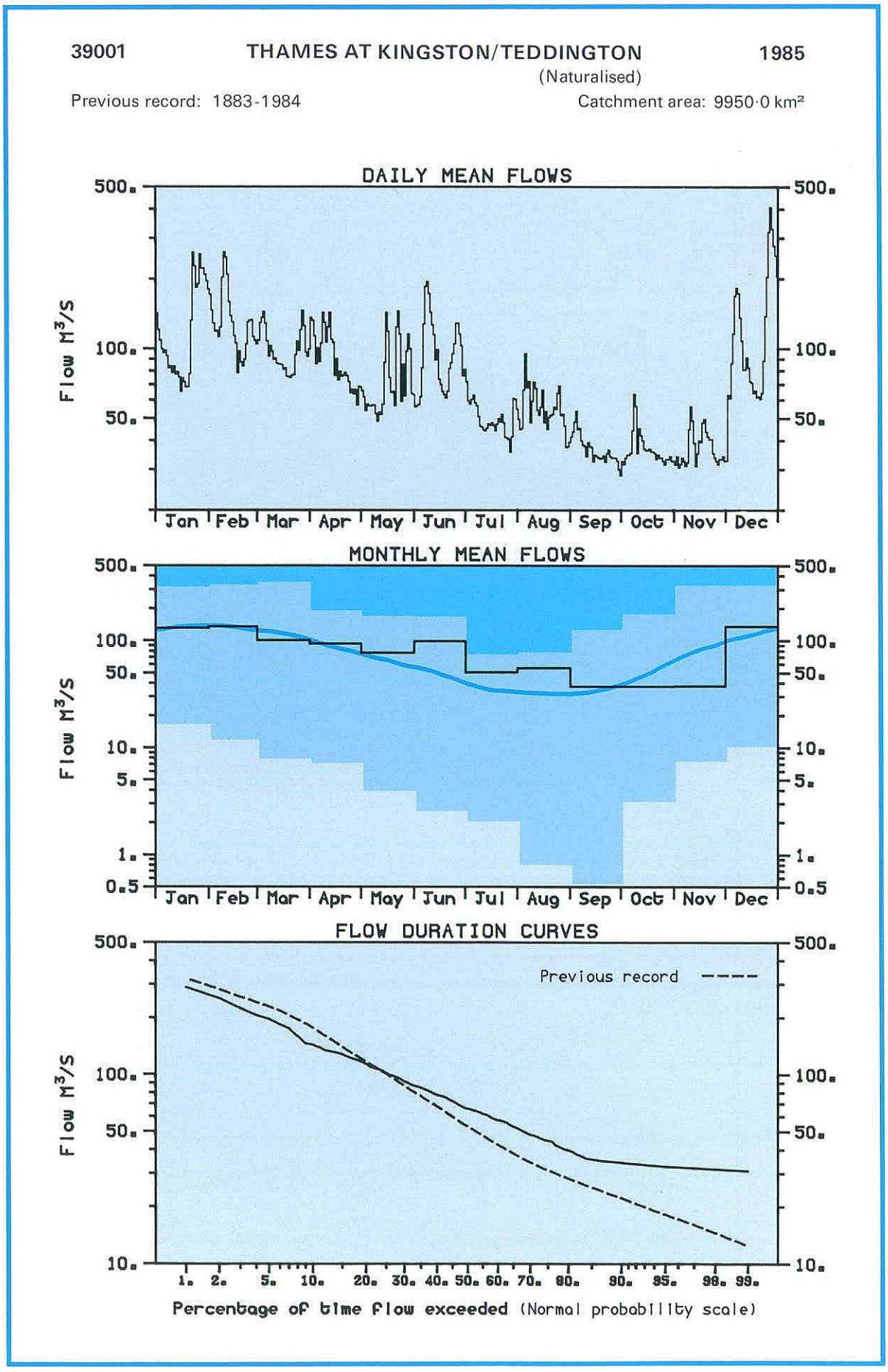


Figure 8b. River flow patterns: Thames at Kingston/Teddington.

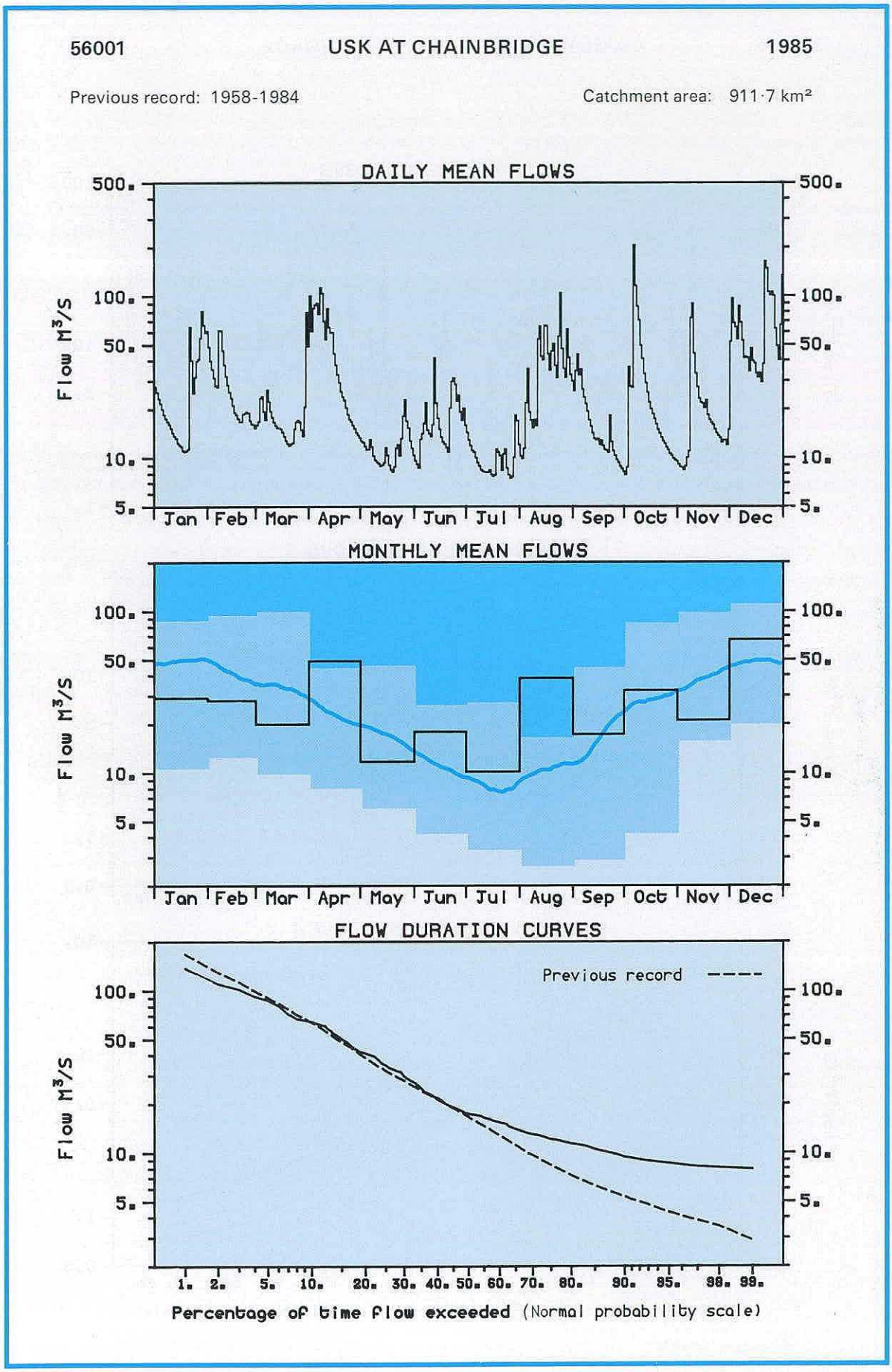


Figure 8c. River flow patterns: Usk at Chain Bridge.

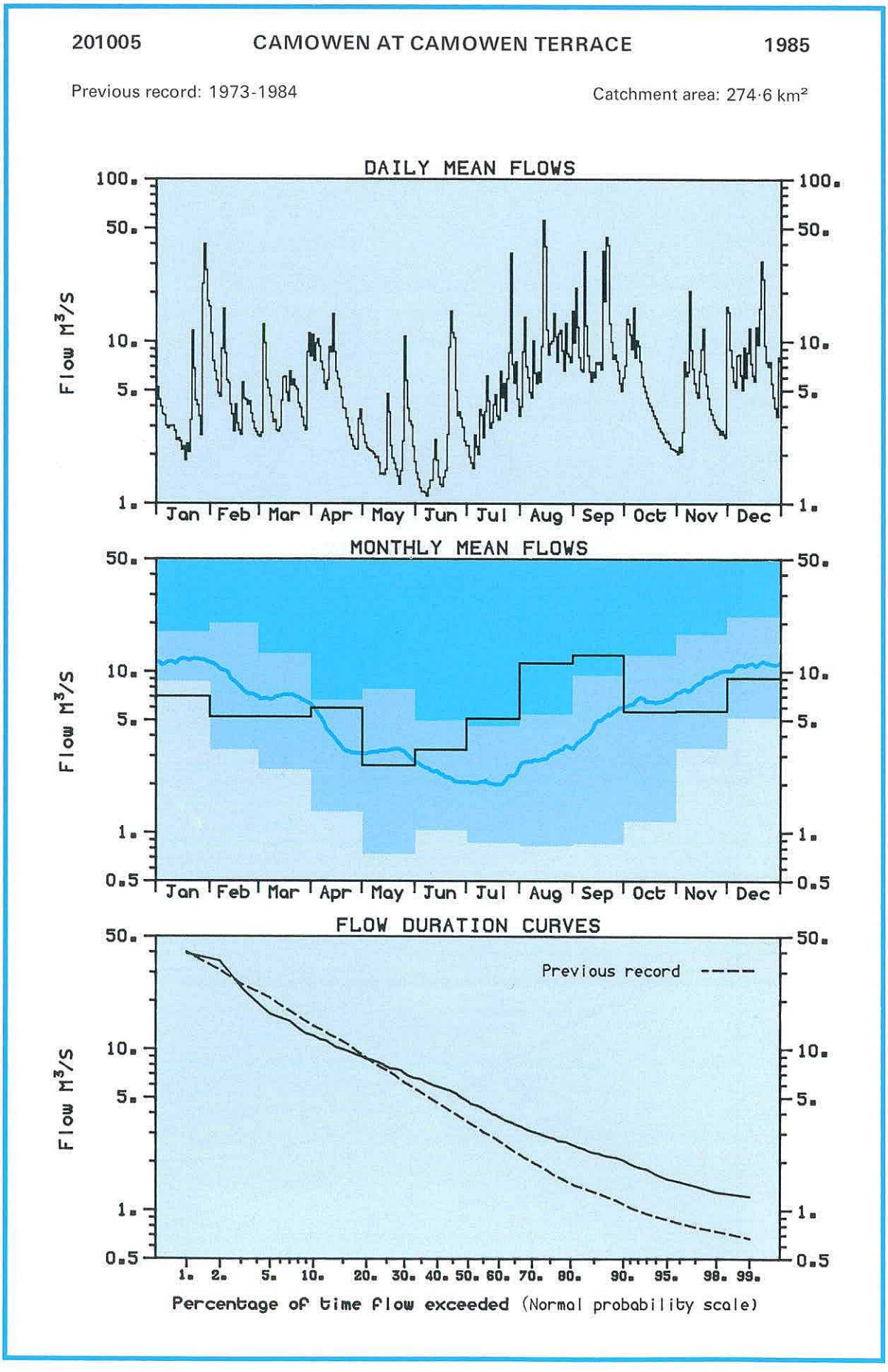


Figure 8d. River flow patterns: Camowen at Camowen Terrace.

corresponding flows at the end of the 1984 drought. Rivers in Wales and the westward draining English rivers exhibited similar runoff patterns to those in Scotland. Within-season variability was large but, partly as a result of the elevated summer discharges, monthly flows showed an unusual degree of consistency through the year, especially over the period March–November. By the end of autumn, flows throughout a large proportion of the English lowlands were substantially below the seasonal average. December witnessed a return to very high runoff rates in most regions of the United Kingdom.

The flow duration curves illustrated in Figure 8 allow the proportion of time that river flows fell below any given threshold to be identified. On the Tay the flows exceeded 10 per cent, 50 per cent and 95 per cent of the time were significantly above the corresponding discharge rates for the period of record. A rather more complex picture emerged in England and Wales where the low flows were generally very much higher than normal but the 10 percentile flow fell short of the equivalent period of record figure. The duration curves are decidedly flatter than normal, highlighting the flow regime contrast with 1983 and 1984 when large flow ranges, and relatively steep duration curves, were characteristic of most regions.

Evaporation losses tend to vary only modestly from year to year and Table 4 confirms that, notwithstanding the notable contrasts in rainfall patterns for 1985 and the previous two years, catchment losses were generally little different from normal. Because of the natural and artificial storage available in river basins, 'losses' cannot be expected to equate closely to yearly totals of actual evaporation. However the autumns of 1983 and 1984 were both wet allowing, at least, a broad comparison to be made. Although soil moisture deficits were limited throughout the summer period in 1985 – thus allowing transpiration to proceed unhindered – the dull, overcast conditions inhibited evaporative losses. The net effect, over most of Great Britain, was for catchment losses to be somewhat below average.

RUNOFF IN 1985

Following heavy autumn rainfall in 1984 the water resources outlook entering 1985 was reassuring. Most reservoirs had reached, or were approaching, capacity at the turn of the year and river flows were generally around the seasonal average. However, discharge rates declined rapidly in January so that by the third week many rivers – away from the English lowlands – were approaching the minimum recorded for January. The River Ely, in South Wales, fell to a new January minimum and, in northern Scotland, discharges declined to below previous January minima on the Rivers: Carron, Ruchill, Spey and Dulnain. Recessions were also particularly steep in northern England and, throughout much of highland Britain, late January flows were to prove amongst the lowest of the year. Where baseflow forms a major component in river discharge, the diminution in flows was more gentle and discharge rates were, in some areas, still increasing throughout January. This was a consequence of the lagged runoff response to the very high infiltration rates in the autumn and early winter of 1984–85.

The return to milder conditions over the period 20–23rd January, for most of England and Wales, was accompanied by an extremely rapid change in runoff conditions. Unprecedented peak flows were recorded in the Stainfield and Blackfoss Becks, which drain from the Yorkshire Wolds, following the rapid thaw. In the South, the still frozen ground encouraged rapid runoff and even spring-fed rivers recorded abrupt increases in flow rates. The Itchen, for instance recorded its highest flow for the year on the 21st. Overbank flows disrupted communications in many localities in Kent and Sussex but worst affected was East Devon where the Axe overspilled its banks and most of the rivers draining Dartmoor were in spate – flooding was reported from Bovey Tracey and Ashburton. The thaw in Scotland was more gradual but snow accumulations were considerable and widespread rainfall enhanced meltwater flows in many catchments; as a consequence flows from the 28-31st approached the seasonal maximum over wide areas.

February displayed a somewhat similar pattern to January but started from a rather higher base. Initially recessions were again steep, flows declining to substantially below the monthly mean by the middle of the month. The Yorkshire Aire was typical of the relatively impervious catchments – over the first fortnight discharges decreased from about 20 m^3s^{-1} to 1.6 m^3s^{-1} on the 19th; the lowest February flow recorded at the Kildwick Bridge gauging station. In Wales, the freezing conditions gave rise to local supply problems. Explosives were used in an attempt to free outlets at a frozen reservoir near Blaneau Ffestiniog where consumers had been subjected to intermittent supplies.

Taken as a whole, winter (November-February) runoff was characterised by several flood events of low magnitude and prolonged spells of low, or very low, discharge. As a consequence the accumulated runoff was modest in most regions – in a few areas some concern was felt in relation to reservoir replenishment. The River Nith (Dumfries and Galloway), for instance, registered a winter runoff total of 251 mm at the Drumlanrig gauging station; the lowest in a 19-year record and only 47 per cent of the corresponding total preceding the 1984 drought. Similarly the December-February runoff for the River South Tyne (Northumbria), was unprecedented and, throughout northern Britain, many rivers

TABLE 4 1985 WATER BALANCES FOR SELECTED CATCHMENTS IN GREAT BRITAIN

Station Number	River and Station Name			Rainfall	Runoff	Loss	Runoff as a % of Rainfall 1985	Runoff as a % of Rainfall lta	Abstractions* and Discharges
7002	Findhorn	Forres	1985 mm	1231	845	386	68	68	N
			as a % of lta	112	112	112			
12001	Dee	Woodend	1985 mm	1184	953	231	80	74	N
			as a % of lta	105	113	82			
15006	Tay	Ballathie	1985 mm	1525	1270	255	93	76	S P I H
			as a % of lta	107	116	77			
18001	Allan Water	Kinbuck	1985 mm	1457	1119	338	76	70	N
			as a % of lta	107	117	84			
19001	Almond	Craigiehall	1985 mm	1043	643	400	61	54	P E I
			as a % of lta	118	135	99			
21012	Teviot	Hawick	1985 mm	1386	1026	360	74	65	N
			as a % of lta	113	128	84			
24004	Bedburn Beck	Bedburn	1985 mm	829	444	385	53	56	N
			as a % of lta	91	85	98			
27002	Wharfe	Flint Mill Weir	1985 mm	1128	671	457	59	58	S R P I
			as a % of lta	90	91	88			
28008	Dove	Rocester Weir	1985 mm	994	554	440	55	56	G E
			as a % of lta	95	94	97			
30001	Witham	Claypole Mill	1985 mm	601	195	406	32	28	R P G I
			as a % of lta	93	104	88			
32001	Nene	Orton	1985 mm	614	174	440	28	29	S P E I
			as a % of lta	97	95	98			
33002	Bedford Ouse	Bedford	1985 mm	622	218	404	35	33	S P G E I
			as a % of lta	95	98	93			
34003	Bure	Ingworth	1985 mm	686	233	453	33	31	G I
			as a % of lta	101	109	97			
36006	Stour	Langham	1985 mm	545	149	396	27	26	R E I
			as a % of lta	93	95	93			
37001	Roding	Redbridge	1985 mm	572	164	408	28	31	S E I
			as a % of lta	91	83	95			
38003	Mimram	Panshanger Park	1985 mm	545	119	426	21	19	G I
			as a % of lta	83	93	81			
39001	Thames	Kingston/Teddington	1985 mm	705	262	442	37	34	Naturalised
			as a % of lta	97	104	94			
39007	Blackwater	Swallowfield	1985 mm	654	257	397	39	36	E
			as a % of lta	91	99	87			
40003	Medway	Teston	1985 mm	734	258	476	35	37	S P G
			as a % of lta	97	93	99			
42004	Test	Broadlands	1985 mm	768	294	474	38	43	N
			as a % of lta	87	77	95			
44002	Piddle	Baggs Mill	1985 mm	922	355	567	38	39	
			as a % of lta	86	84	88			
45001	Exe	Thorverton	1985 mm	1206	744	462	61	65	P G E I
			as a % of lta	94	89	105			
50001	Taw	Umberleigh	1985 mm	1051	578	473	54	60	S P E
			as a % of lta	91	83	102			
52005	Tone	Bishops Hull	1985 mm	927	406	521	43	47	R
			as a % of lta	90	84	96			
54005	Severn	Montford	1985 mm	1110	679	431	61	56	S R P
			as a % of lta	94	103	83			
55008	Wye	Cefn Brwyn	1985 mm	2385	2068	317	86	77	N
			as a % of lta	80	90	47			
57004	Cynon	Abercynon	1985 mm	1927	1401	526	72	64	S E
			as a % of lta	99	111	76			
62001	Teifi	Glan Teifi	1985 mm	1317	951	366	72	69	S
			as a % of lta	90	94	82			
67001	Dee	Bala	1985 mm	1774	1488	286	83	82	S R
			as a % of lta	96	98	86			
68001	Weaver	Ashbrook	1985 mm	666	241	425	36	37	P G E
			as a % of lta	72	70	74			
75002	Derwent	Camerton	1985 mm	1751	1373	378	78	72	S P
			as a % of lta	99	109	77			
84005	Clyde	Blairston	1985 mm	1252	924	328	73	65	N
			as a % of lta	109	123	84			

lta = long term average

* For an explanation of the code letters see page 58

experienced winter runoff rates to be expected only about once every 10 years.

March was unremarkable with flows close to, or somewhat below, the monthly mean. Relatively modest discharge rates were especially prevalent in the rivers draining the Pennines. By contrast, April witnessed strong recoveries in river discharges and record monthly runoff totals for a few catchments particularly in South Wales - for instance, the 140 mm recorded at the Chain Bridge gauging station on the Usk was the highest in a 28-year record. Runoff rates were especially high early in the month. For example, the daily mean flows recorded on the 7th and 8th on the Thrushel (Devon) and Tiddy (Cornwall) rivers were more than 50 per cent above the previous highest recorded. Maximum, or near maximum, daily mean flows - for April - were recorded on rivers draining the Peak District on the 11th and, by the end of the second week, most westward draining rivers of the United Kingdom were in spate. Overspilling of banks was widespread but serious flooding was rare. A general recession then became established and continued well into May. However, the national pattern was complicated by the effect of several intense, but localised storms, in the South and rather more extensive storms in northern England. These caused some significant flow increases in May. Total spring (March-May) runoff was close to the average in most regions forming a counterpoint to the rather volatile spring runoff patterns in recent years; runoff totals were exceptionally low in 1984 and extremely high in both 1982 and 1983.

Early June flows were on a decreasing trend and, in a normal year, this general recession would be expected to continue throughout the summer. In 1985, especially in the northern regions, the anticipated summer low flows failed to materialise except for very brief periods. High runoff rates, and substantial regional variability, became a feature of summer discharges in 1985. Southern and central England witnessed seasonally high flows in June with several significant runoff events superimposed on the already considerable discharge rates. For example, thunderstorms on the 10th caused a rapid increase in water levels - the Ouse at Bedford recorded a new June peak daily mean flow and the normally sluggish Dorset Avon doubled its discharge to reach a new high for early June. Further thundery activity brought localised flooding to Bournemouth on the 19th. To the west, a record June daily mean flow was established in the Institute of Hydrology's research catchment at Plynlimon. The remarkable sequence of high runoff events continued with local flooding reported throughout the north and east on the 25th and 26th. A number of East Anglian rivers, especially those with short flow records, remained above previous daily maximum June flows for most of the month. Throughout much of the English lowlands these high flows were to remain unapproached for a six-month period but several important interruptions in an otherwise very gentle decline in runoff rates occurred in August. The Scottish flow pattern formed a stark contrast. Many Scottish rivers registered their minimum flow for the year in June - commonly very much higher than in a typical year. By the end of the month, however, minor floodplain inundations were reported in many catchments; these relatively modest events were the precursors of a succession of high flows which, generally, increased in magnitude through the summer and early autumn.

The July runoff totals were the highest on record at most gauging stations in central and southern Scotland but were still widely eclipsed in both August and September. Unprecedented monthly runoff also typified short record catchments in the upland regions of England and Wales. For instance, the River Churn, which drains the dip-slope of the Cotswold Hills, remained above previous July flows throughout the month. As a result of the lagged response of this spring-fed river to the heavy summer rainfall discharges were set to continue at record levels until October. Weather conditions were dull and overcast for extended periods and, with only modest soil moisture deficits established, rainfall was unusually hydrologically effective for the summer period.

Following a very stormy period up to the 6th August, the River Rother overtopped its banks at Rye (Kent) causing flooding, and extensive floodplain inundation resulted from the River Cuckmere (East Sussex) rising to its second highest August flow rate at the Cowbeech gauging station. This discharge was exceeded a week later when local flooding, and transport disruption, was reported throughout the South and in most other regions. The Clyde valley was seriously affected and large areas of agricultural land were flooded in Northern Ireland. On the 11th a daily mean flow exceeding 35 m^3s^{-1} was registered at the St Fagans gauging station on the River Ely; almost four times the previous August maximum. The River Nith recorded its maximum daily mean flow of the year on the 15th - 169.4 m^3s^{-1}; this discharge ranks amongst the ten highest flows on record. A week later the River Camowen, in Northern Ireland, registered its highest flow for the year. The extraordinary persistence of unusually high discharges during August was exemplified on the Tay where flows at the Kenmore gauging station, below Loch Tay, remained above the previous maximum daily mean - for August - from the 12th until the month's end.

The combined runoff totals for July and August were records for many rivers throughout the U.K. Most of these registered unprecedented runoff totals for June-August also. The inordinate nature of summer runoff during 1985 was evident even for flow records extending back thirty years or more. For instance, June-August runoff for the Rivers Tees and Usk exceeded previous maxima by wide margins and

total outflow from the Clyde basin was almost three times the long term average.

A measure of the extreme variability of runoff patterns over the last few years may be gauged from the fact that several of the rivers reporting new maximum summer runoffs in 1985 had recorded minimum, or near minimum, summer runoffs in 1984. The margin by which 1985 runoffs exceeded previous maxima was also notable in many drainage basins.

September featured few exceptional runoff events in central and southern England and in Wales where recessions had become well established by the end of the month. Very high discharge rates continued in the North and in Scotland, however, and the summer peak flows were often surpassed although some diversity from an otherwise unrelenting sequence of high, or relatively high, discharge rates, was provided by a few limited recessions. With the ground saturated from the previous storms many regions of Scotland were vulnerable to further precipitation. Heavy rainfall from the 20th to the 23rd resulted in new record September daily mean flows being established on a number of rivers in the Clyde, Tweed, Tay and Forth basins. Rainfall was particularly severe in Fife and Angus where the town of Arbroath suffered serious flooding on the 23rd. A series of culverts in the town were unable to pass the flood flows of the Brothock Water and many industrial and commercial premises were flooded. One fatality occurred on the Hercules Burn, a tributary of the Brothock Water, when a child was swept away in the flood waters. The highest flow of the year, and the maximum September daily mean flow on record was recorded on the 21st on the Rivers Tweed and Tyne - peak flows exceeding 1000 m^3s^{-1} were registered at the Norham and Bywell gauging stations; such discharges are very uncommon for all U.K. rivers with the exception of the Tay. Subsequently discharges declined only for seasonally high rates to be re-established in early October. From around the 10th however, the dry conditions combined with soil moisture deficits, which had become significant in many lowland areas, resulted in relatively steep decreases in runoff rates. Smooth, characteristic recessions extended over thirty days, or more, in some catchments. Particularly steep recessions typified catchments which include substantial areas of urban development - the River Rea, which drains part of Birmingham, had declined to a new October minimum by the 25th. The Ribble (Lancashire) and the Nith, both draining relatively impervious catchments, recorded new minimum flows for early November. By the end of autumn, below average flows obtained in most rivers but, taken as a whole, autumn (September-November) runoff was about average throughout most of the United Kingdom.

The mild December, and the associated sequence of depressions, saw a general return to high discharge rates but the month was also characterised by a large flow range in most regions. A sharp rise in temperature - at Perth an increase of 20 degrees Celsius was reported over a 36-hour period at the beginning of the month - caused a rapid snowmelt particularly on the lower hills of eastern Scotland. Significant flooding resulted from the associated runoff. The Luther Water - a tributary of the North Esk - recorded a peak flow rate of 80 m^3s^{-1} which has an estimated return period of 1 in 15 years. A dry spell then resulted in a sharp decrease in flow rates. In southern England these recessions were sustained sufficiently for record monthly low flows to be recorded in a few catchments. Later in December rivers throughout most of the U.K. returned to spate conditions with many maximum flows for the year established around the Christmas period. On the 21st, rivers throughout much of Scotland, and rivers draining the Pennines, exceeded bankfull; flows on the Tweed and Tyne were comparable with the September peaks. Flooding was reported near Carlisle and at Keswick in the Lake District - a new highest instantaneous flow, in an 18-year record, was recorded on the River Kent at Sedgwick. The River Teith, which flows into the Firth of Forth, registered a December maximum daily mean flow having recorded a new monthly minimum in November. Over the Christmas holiday southern England experienced its most severe flooding of the year; the West Country was worst hit with many roads cut and thousands of acres inundated. The Thames Barrage, at Woolwich, was closed for the second time in its three-year history on the 26th as the tide rose close to the danger level. This coincided with significant fluvial flooding in the Thames Basin - the large storage available upstream of the barrage meant that there was no significant risk of flooding in the London area. However, the river rose to a five-year high in its middle reaches, isolating low-lying farms and cottages and disrupting road communications especially in the Pangbourne and Reading areas.

Summary

Since the drought of 1976, when unprecedented low groundwater levels were recorded throughout both major and minor aquifers, water tables have generally stood near to, or above, average levels. Only towards the end of 1984 – following a spring and summer drought – did the groundwater levels in some wells dip down towards the recorded minima.

The annual rainfall total for 1985 was a little below average throughout those regions of the United Kingdom most dependent on groundwater supplies. In addition, the rainfall distribution was not such as to maximise aquifer recharge – there was a significant tendency for rainfall to be concentrated during the summer (June-August) when, normally, high rates of evaporation ensure that infiltration is minimal. Nonetheless water tables remained, generally, close to the average in 1985. This was due largely to the major recovery in groundwater levels following the exceptionally wet autumn in 1984 and substantial recharge in the early spring of 1985. The variation in groundwater levels in 1985 was considerably more subdued than in the previous year but some erratic well hydrograph behaviour characterised the summer period; the normal summer recession of groundwater levels was interrupted in many areas as a consequence of the unusually sustained rainfall in June. In most aquifers the recovery of groundwater levels was delayed by the limited rainfall in October and November but the very wet December resulted in an upturn by the end of the year.

Figures 9 and 10 illustrate the winter and summer half-year rainfall totals expressed as a percentage of the 1941–70 annual average and Table 5 lists the corresponding six-monthly rainfalls for the Water Authority and River Purification Board areas. Although the replenishment of aquifers is heavily dependent on the winter half-year rainfall, when evaporative losses are limited, the actual pattern of water table fluctuations throughout 1985 also reflected rainfall variability within the seasons (see Table 2) to a significant degree.

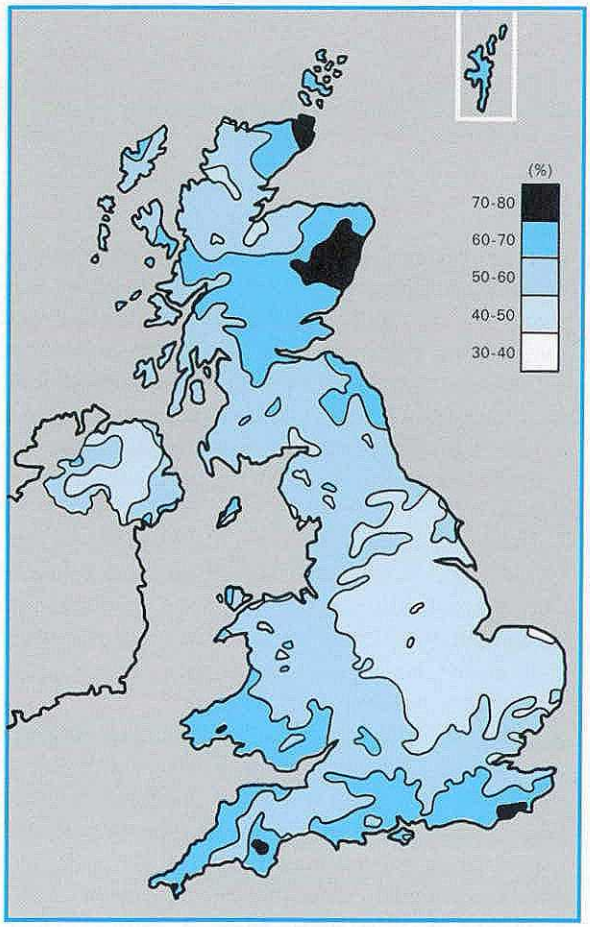


Figure 9. 1984/85 Winter (October-March) rainfall as a percentage of the 1941–70 annual average.

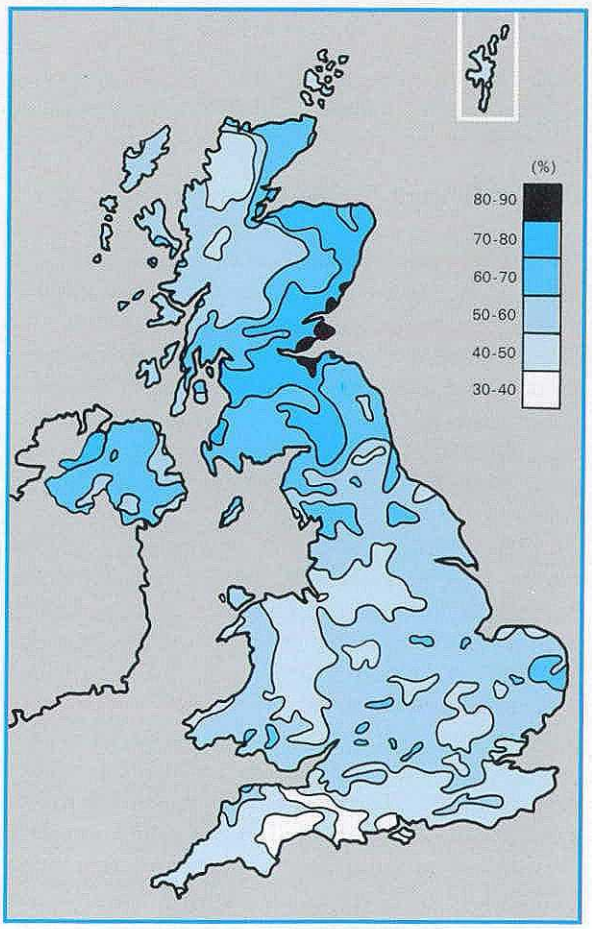


Figure 10. 1985 Summer (April-September) rainfall as a percentage of the 1941–70 annual average.

TABLE 5 WINTER AND SUMMER RAINFALL IN THE UNITED KINGDOM 1984-5

Water Authority area	Winter Rainfall 1984-85	Summer Rainfall 1985	Rainfall Oct-Dec 1985
North West	616 mm 99%	682 mm 115%	340 mm 95%
Northumbrian	483 mm 109%	517 mm 108%	205 mm 84%
Severn Trent	382 mm 98%	393 mm 102%	216 mm 101%
Yorkshire	413 mm 97%	438 mm 108%	219 mm 94%
Anglian	279 mm 93%	327 mm 106%	161 mm 96%
Thames	381 mm 106%	364 mm 105%	184 mm 91%
Southern	493 mm 113%	356 mm 100%	216 mm 85%
Wessex	505 mm 107%	387 mm 97%	246 mm 91%
South West	740 mm 108%	522 mm 103%	325 mm 85%
Welsh	788 mm 107%	683 mm 114%	421 mm 101%

River Purification Board area	Winter Rainfall 1984-85	Summer Rainfall 1985	Rainfall Oct-Dec 1985
Highland	965 mm 100%	905 mm 119%	526 mm 95%
North East	667 mm 126%	663 mm 134%	263 mm 87%
Tay	791 mm 118%	782 mm 133%	365 mm 97%
Forth	677 mm 119%	788 mm 144%	318 mm 98%
Clyde	938 mm 103%	1051 mm 140%	456 mm 85%
Tweed	585 mm 117%	673 mm 134%	254 mm 90%
Solway	788 mm 103%	942 mm 142%	395 mm 90%
Northern Ireland	539 mm 94%	680 mm 131%	233 mm 72%

Groundwater levels through 1985

The main aquifers in the United Kingdom are the Chalk (with the Upper Greensand), the Permo-Triassic sandstones, the Magnesian Limestone and the limestones of the Middle Jurassic (principally the Lincolnshire Limestone). Outcrop areas of the major aquifers are shown on page 185; throughout Scotland, Wales and Northern Ireland, aquifers – commonly superficial deposits – are of local importance only.

Well hydrographs for 18 observation sites are shown in Figure 11. Except for the Killyglen borehole in Northern Ireland which has only recently been incorporated in the network of index wells, the 1982-85 groundwater levels are illustrated. For comparison, the average and the extreme monthly levels for the pre-1985 period of record are shown where sufficient historical data are available. Four-year plots have been used because the volume of groundwater stored in aquifers can reflect not only the infiltration taking place during the winter months but also that occurring in previous years. When comparing the hydrographs for a number of sites, account should be taken of the differing scales used to illustrate the water table fluctuations. The behaviour of several wells is influenced by local, or regional, pumping for water supply or other purposes. For instance, the Westonbirt borehole (see page 29) provides water for Westonbirt School and groundwater levels at Rusheyford now stand some 10 metres higher than a decade ago; this is partly due to the run down in the coal industry and the cessation of continuous pumping to dewater the mines.

Although rainfall was irregular during the winter of 1984/85, October and November were generally wet and infiltration was substantial. Consistent with the established pattern over the previous few years, steep recoveries in groundwater levels were a feature of the late autumn and winter of 1984/85. The Rockley borehole, in the Chalk of southern England, recorded a 12 metre rise over the months up to February. At Therfield (Hertfordshire), the water table is at a considerably greater depth and, as a consequence, groundwater responds to rainfall only after a lag of about three months; peak levels in 1985 were not recorded until May. A similar delayed response is evident in the broken trace for the Redbank (Dumfries) borehole.

The impact of the dry January and February – particularly the latter – was to reduce, or arrest, the increase in groundwater levels. March was, however, wetter than average and water tables generally reached a spring peak close to, or a little above, the long term mean; in many areas the corresponding maximum levels have been significantly higher in recent years. With the onset of the late spring recession groundwater levels followed, often closely, the average profile at many sites.

The contrast in summer rainfall between 1984 and 1985 is easily discernible in the well hydrograph behaviour of the Ampney Crucis and Westonbirt boreholes. At these sites a very substantial rise in the water table was recorded in June 1985. Both boreholes are located in the well-fissured Jurassic limestone aquifer where the water table is relatively close to the surface. As a consequence, groundwater levels can react very quickly to rainfall. With persistent rainfall throughout June – exceeding twice the normal total in the Thames Water Authority area – coupled with limited soil moisture deficits, infiltration rates were high. The Ampney Crucis borehole registered a record level for June, a level unsurpassed during the rest of 1985. Further short-term recoveries were recorded in August. By contrast many wells and boreholes, especially the deeper boreholes in the Chalk, exhibited only minor inflections in the normal mid-year recessions to provide any evidence of the unusually wet summer.

Notwithstanding the high rainfall totals for the June-August period, water tables were generally around the seasonal average entering the autumn and, in some regions, groundwater levels continued to decline into the winter. For instance, by November levels in the Dalton Holme (Yorkshire) borehole stood only marginally above those recorded following the 1984 drought. The trace for the Bussels No. 7A well, in Devon, reveals a similar situation. In Scotland the autumn was somewhat wetter than in England but the November peak at the Redbank site, in fact, represents the lagged response to the exceptional summer rainfall.

By the end of December recoveries in groundwater levels were well established in all aquifers although water tables continued to decline in certain of the deepest boreholes.

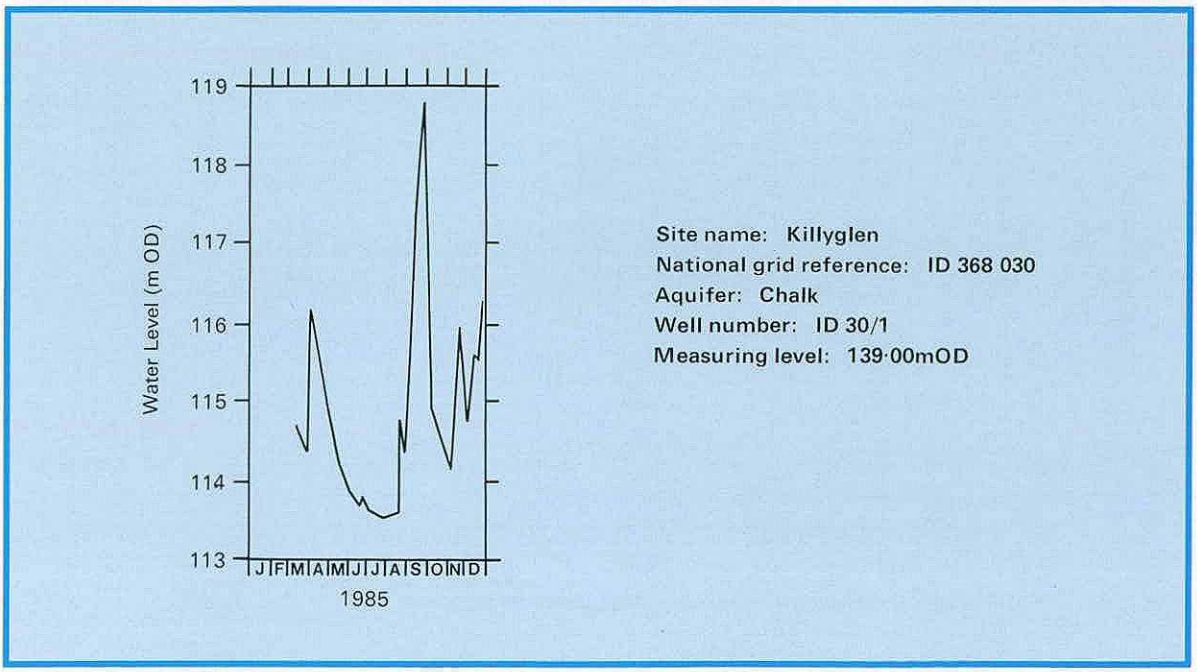
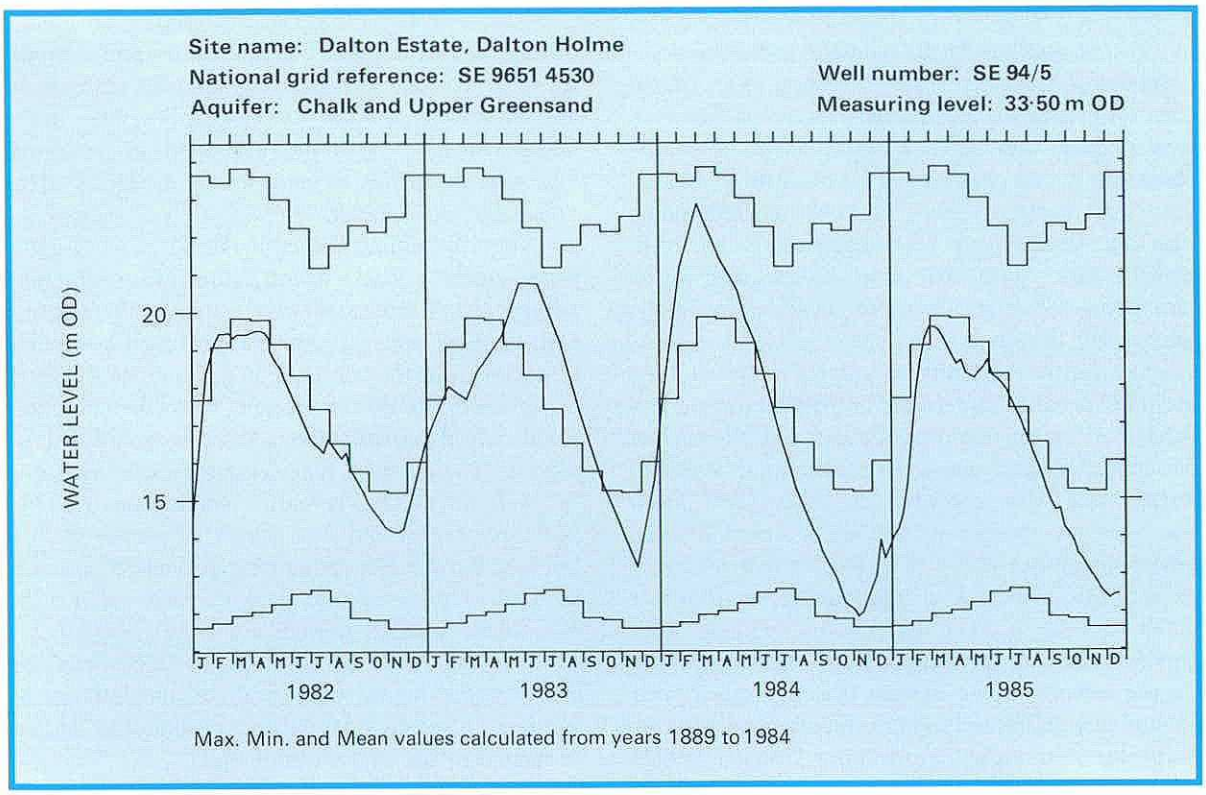


Figure 11. Hydrographs of groundwater level fluctuations 1982–85.



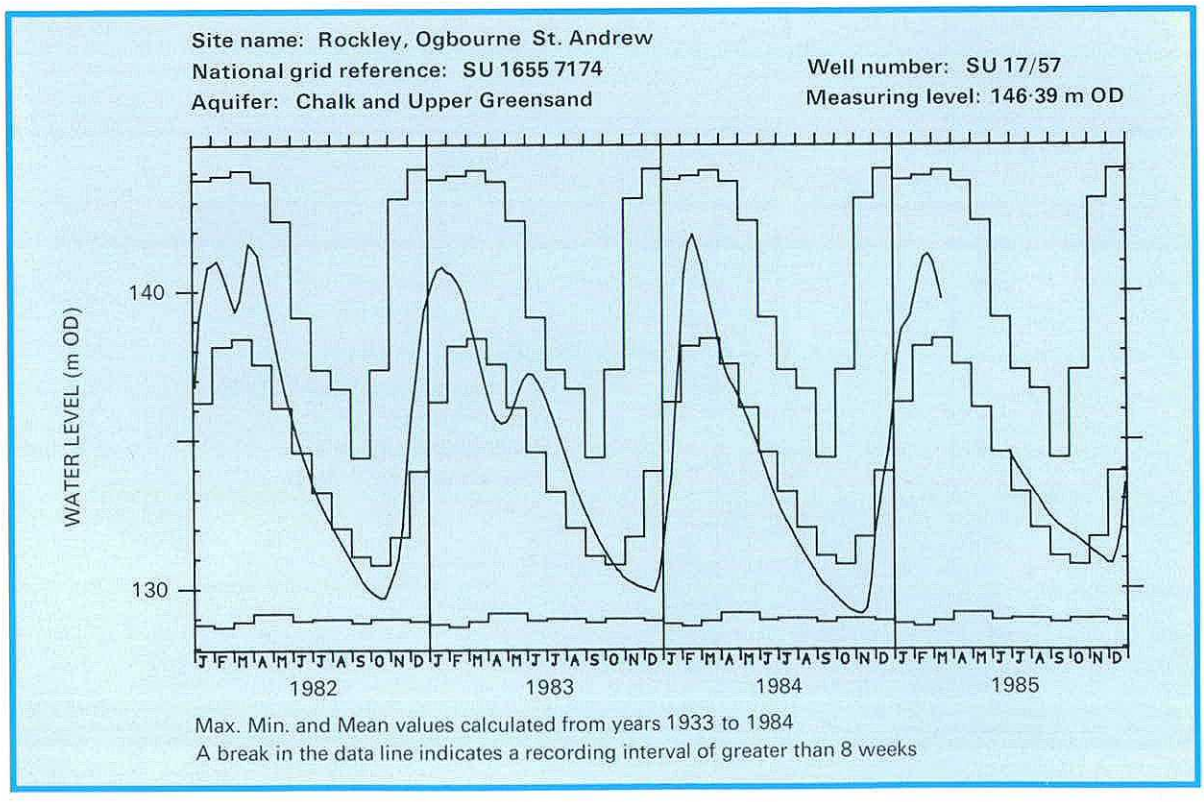
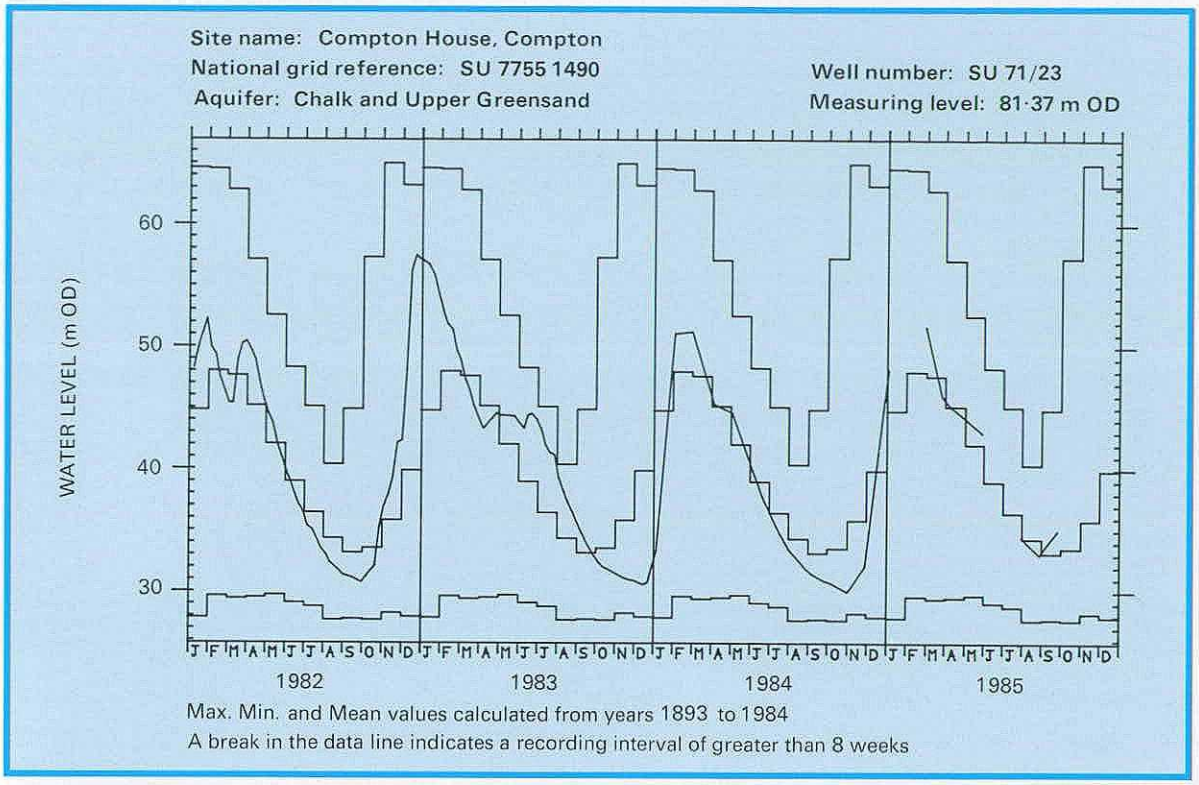


Figure 11—(continued).



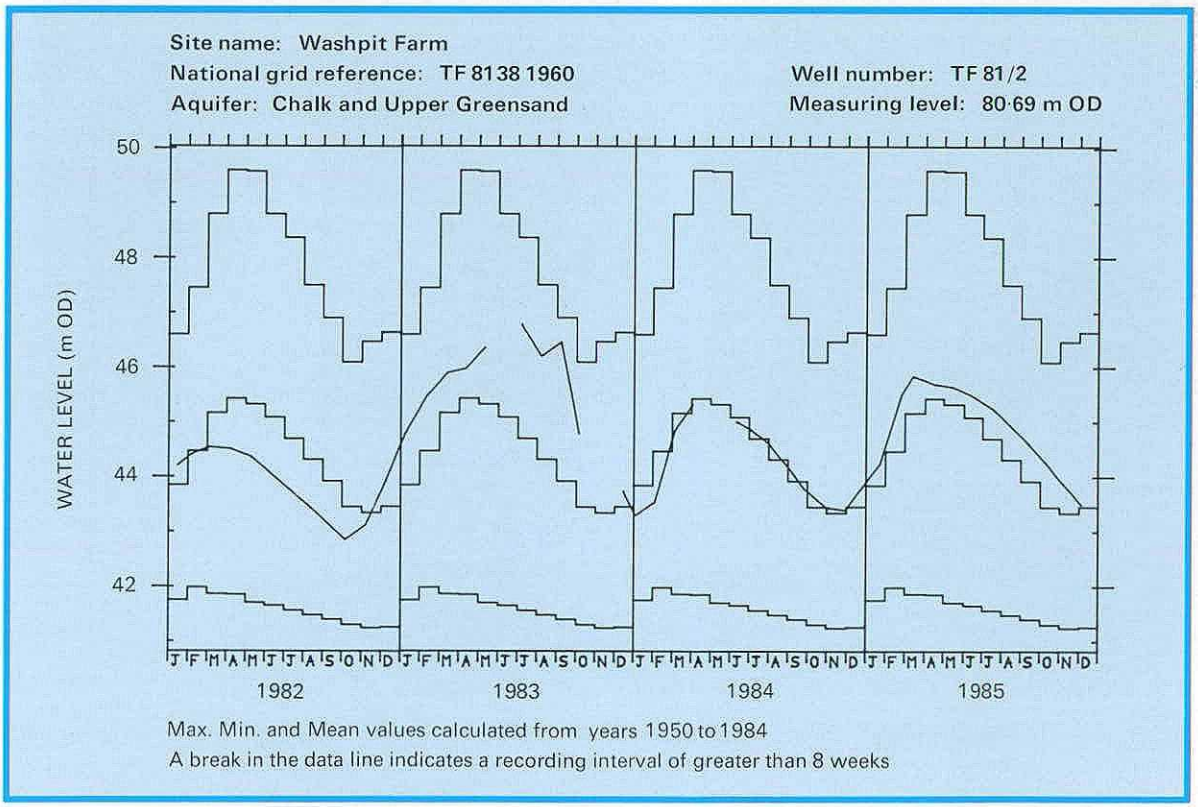
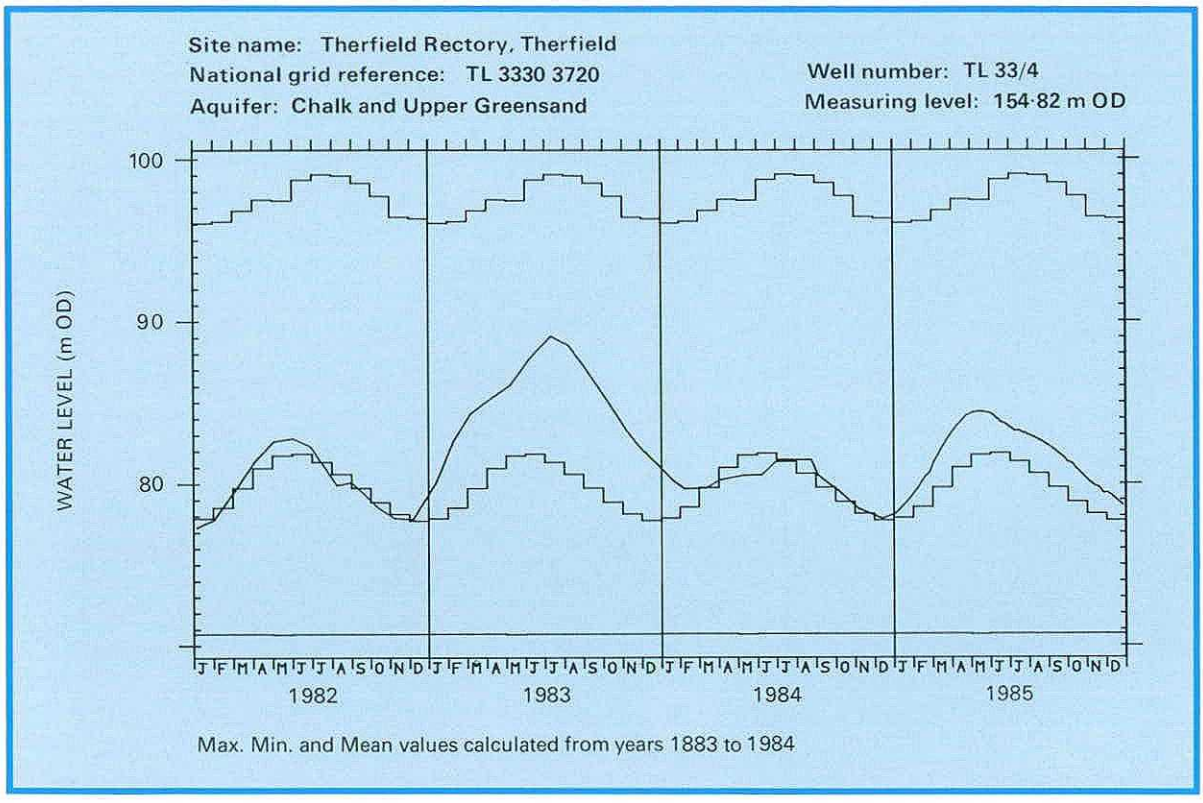


Figure 11—(continued).



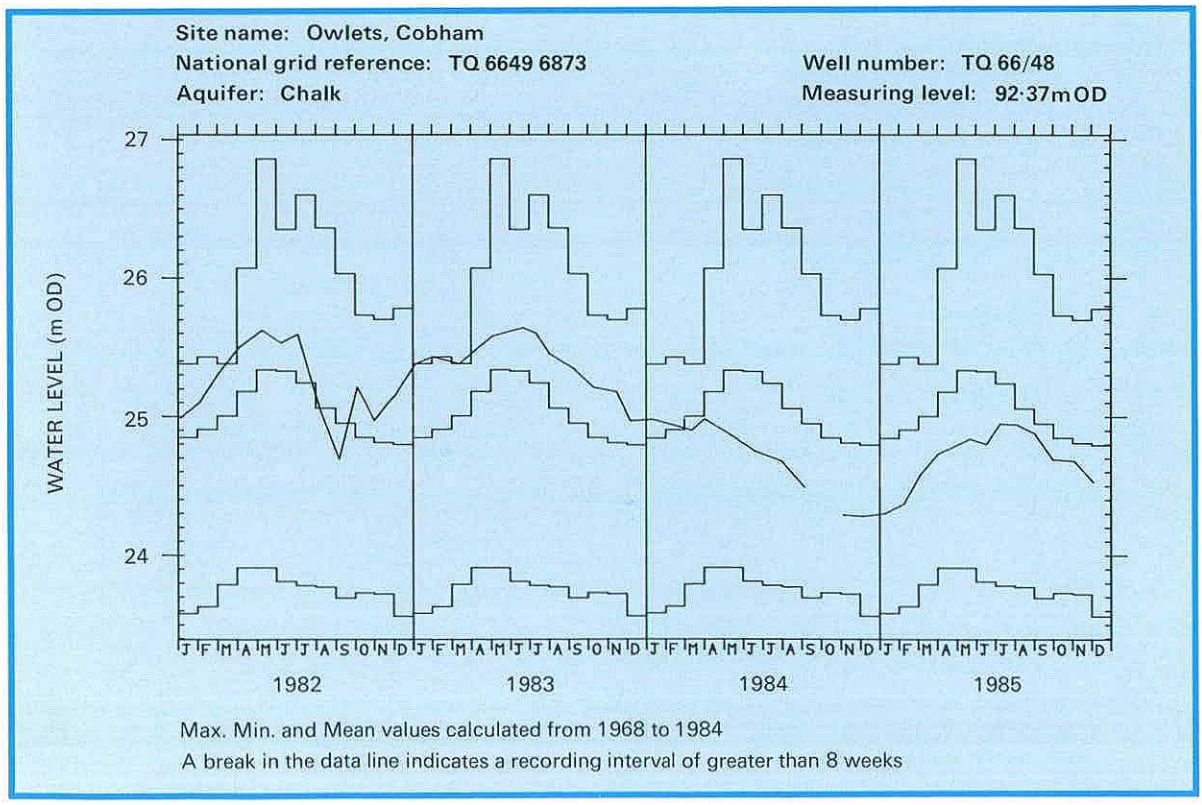
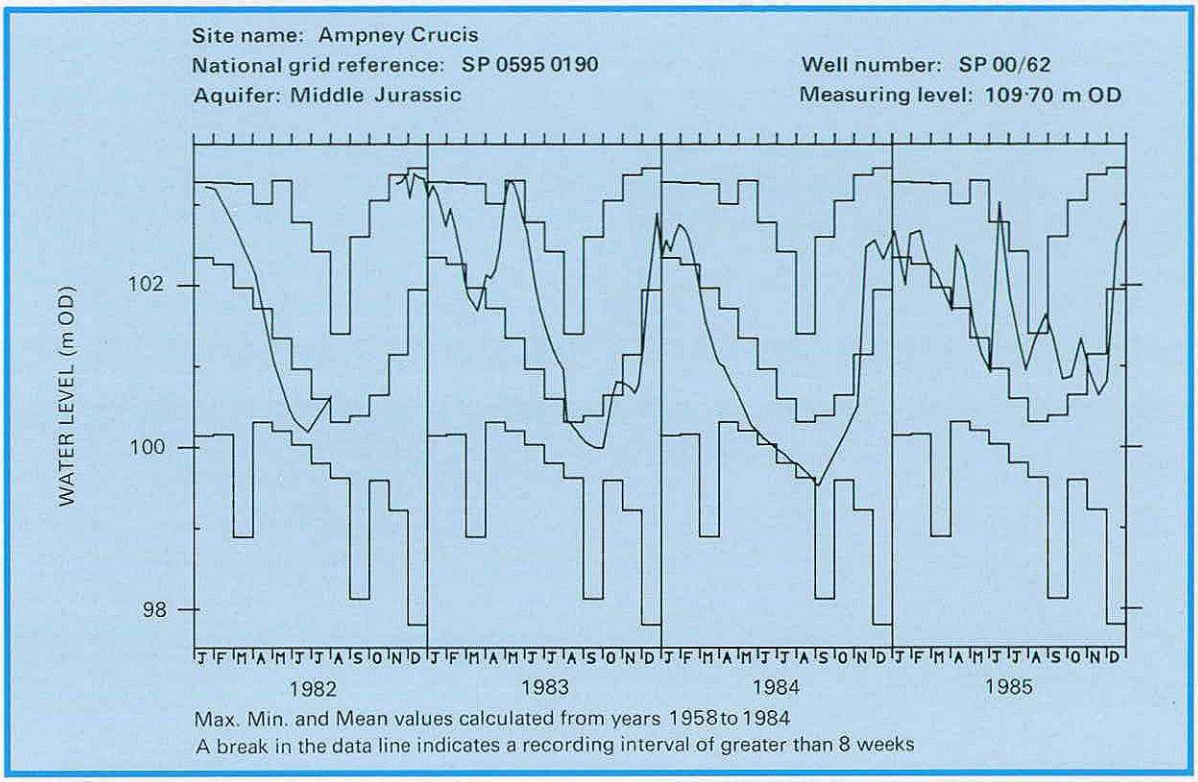


Figure 11—(continued).



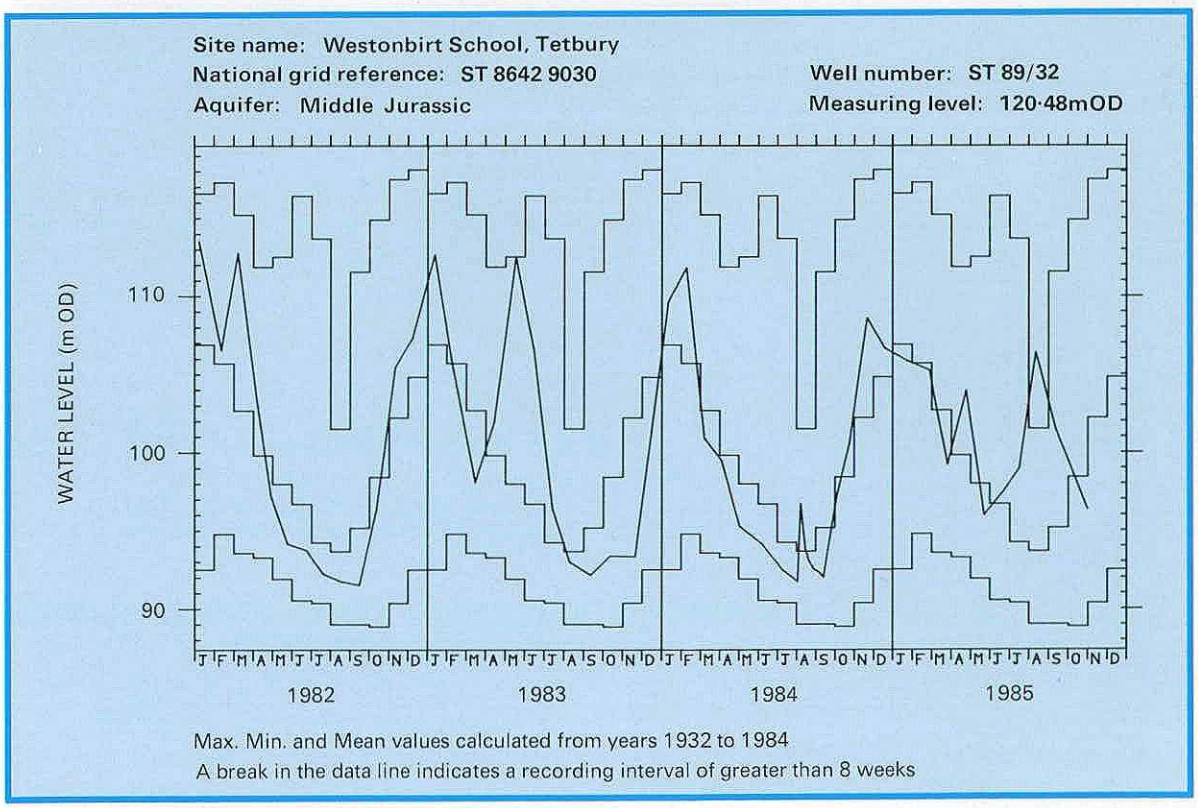
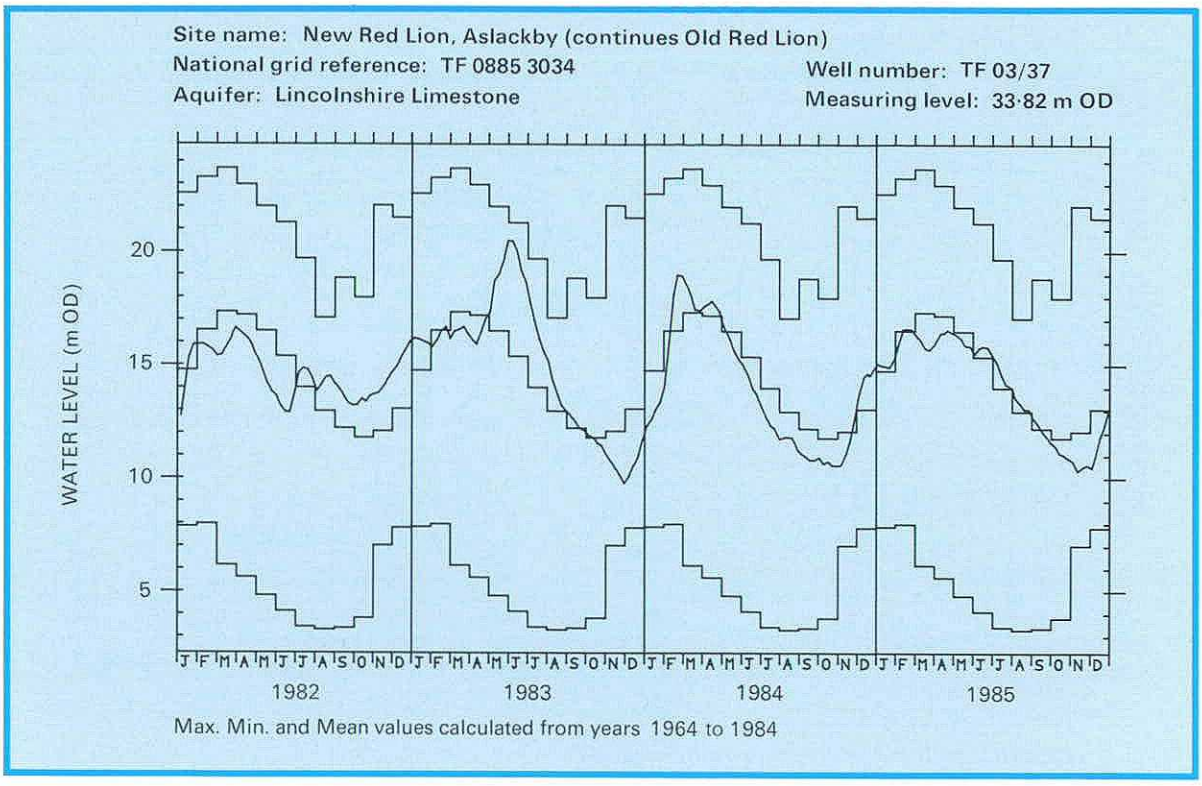


Figure 11—(continued).



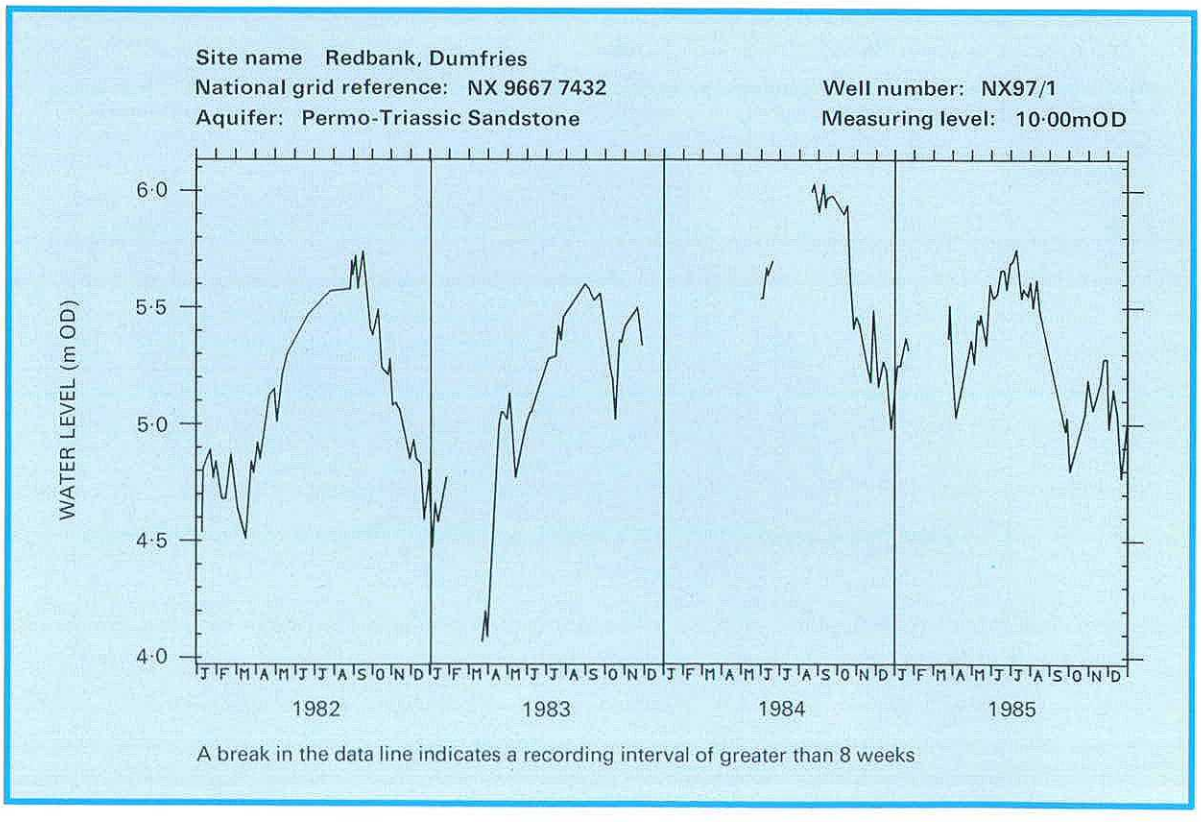
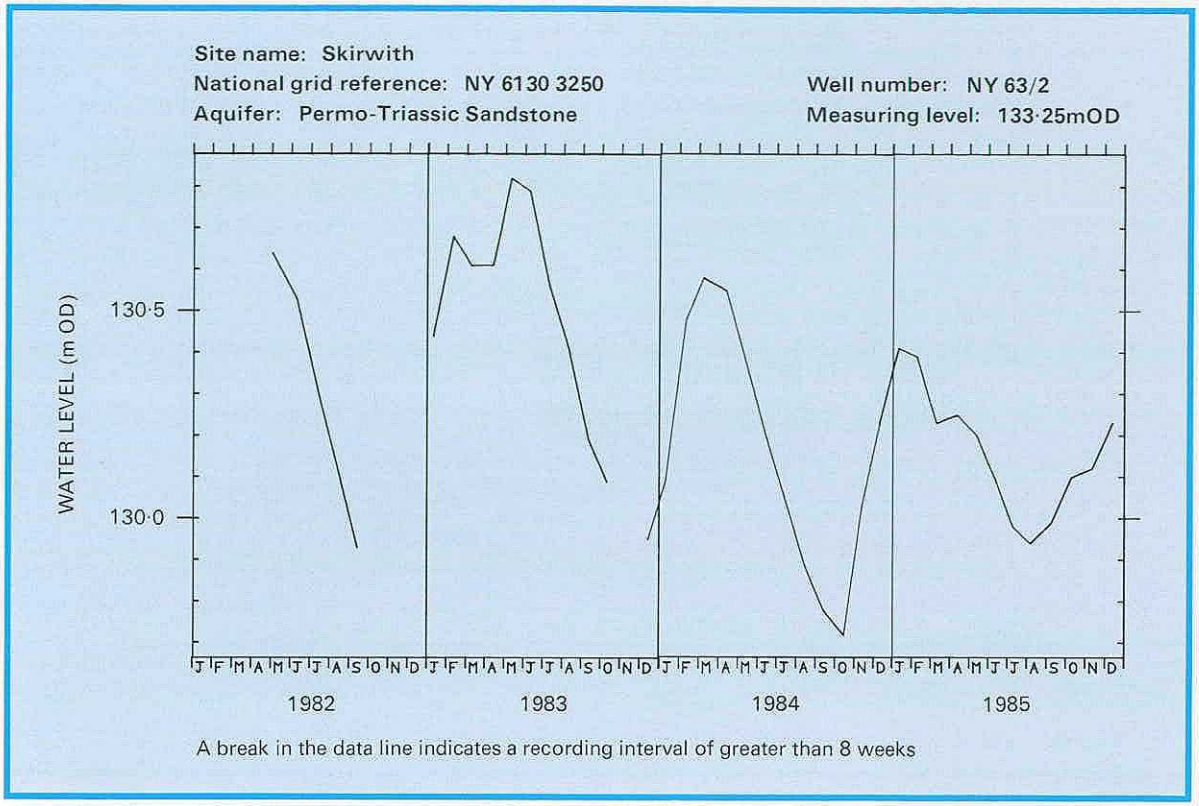


Figure 11—(continued).



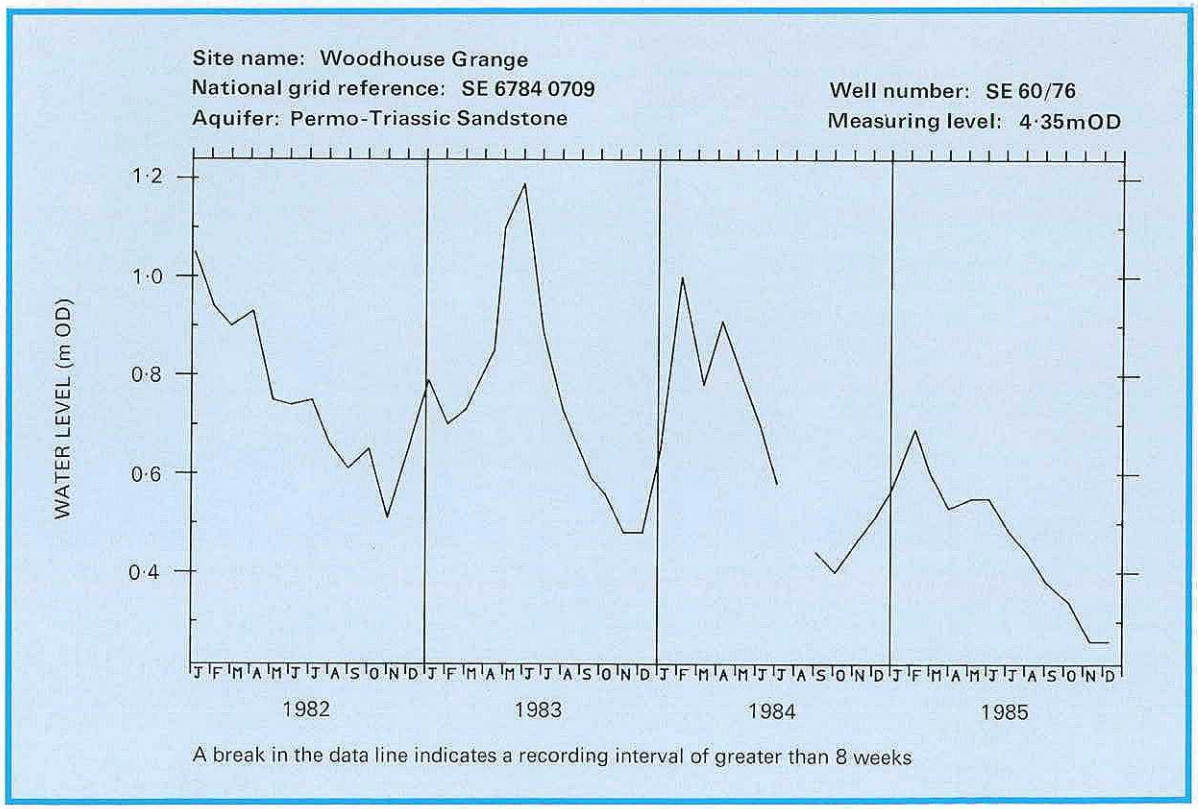
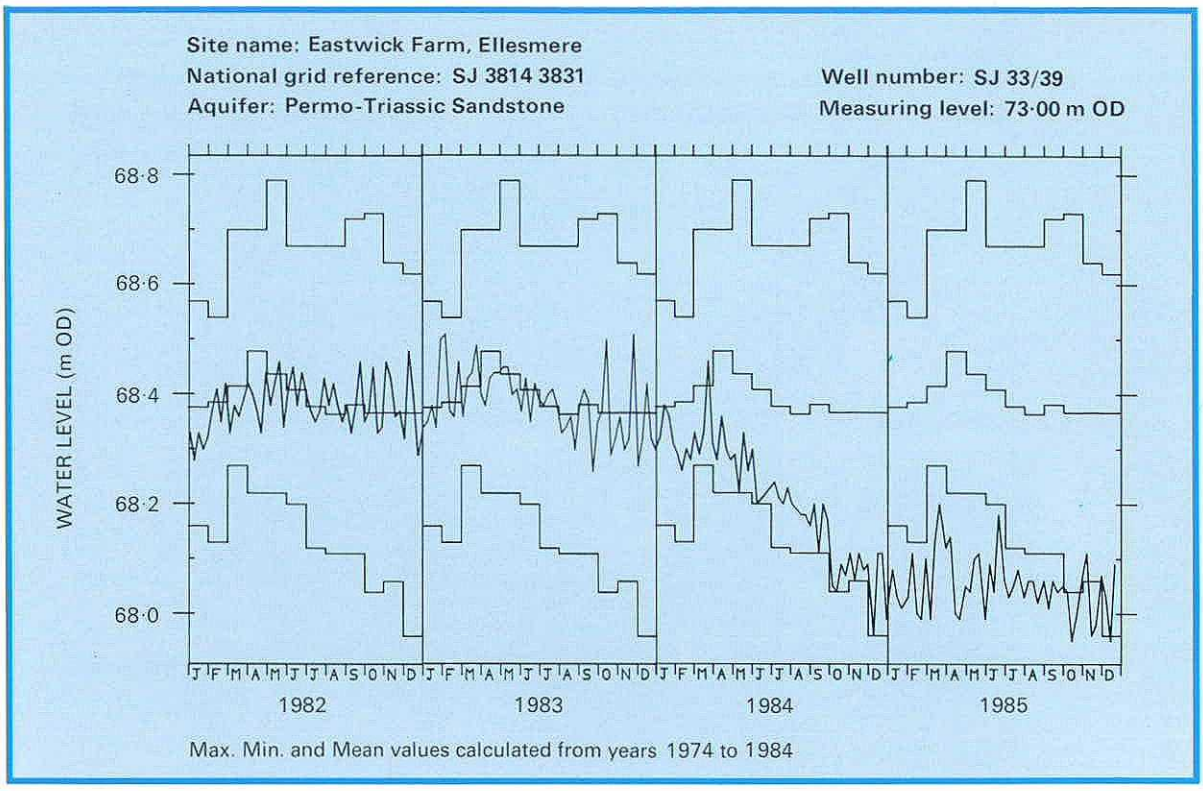


Figure 11—(continued).



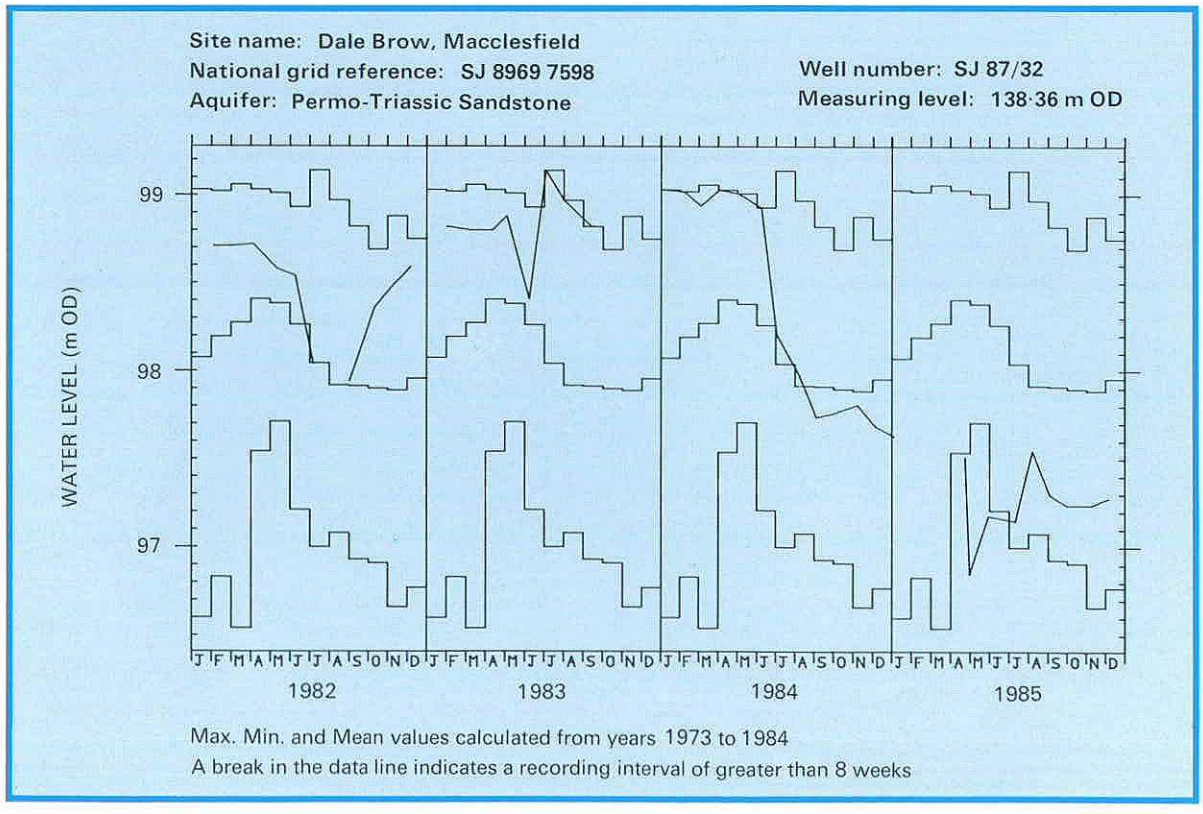
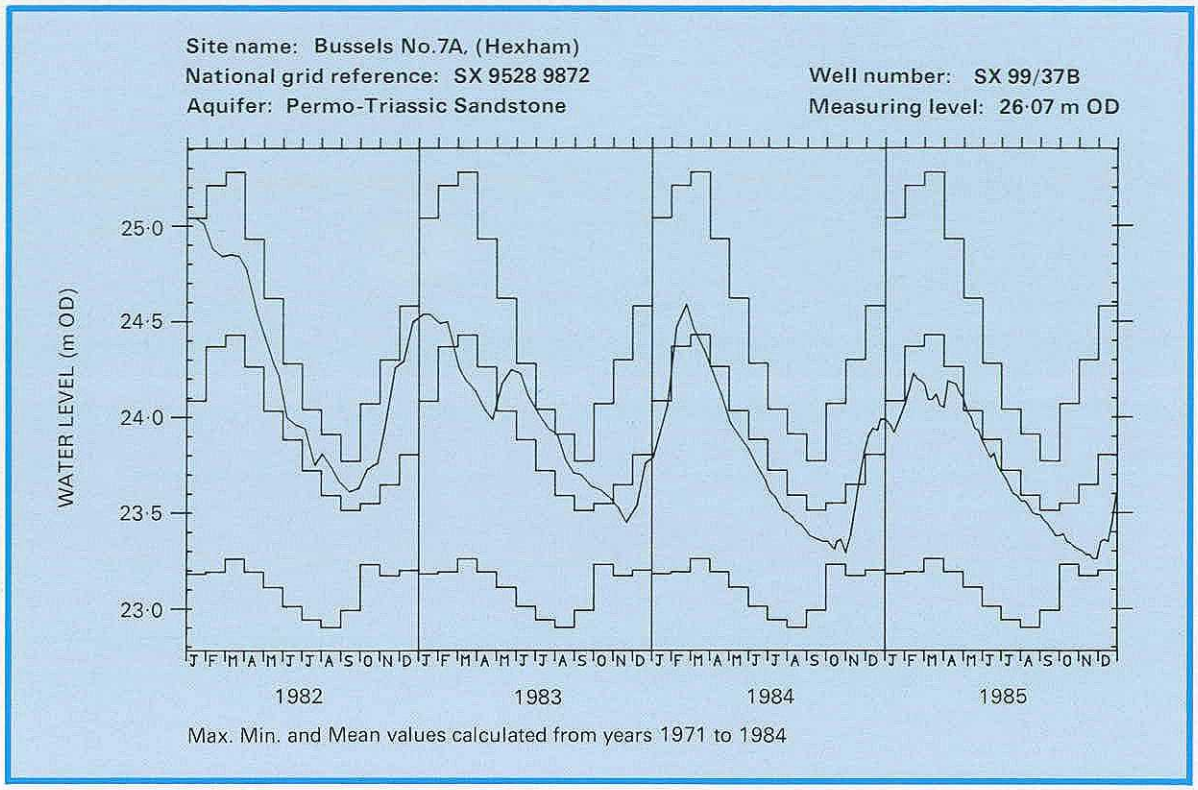


Figure 11—(continued).



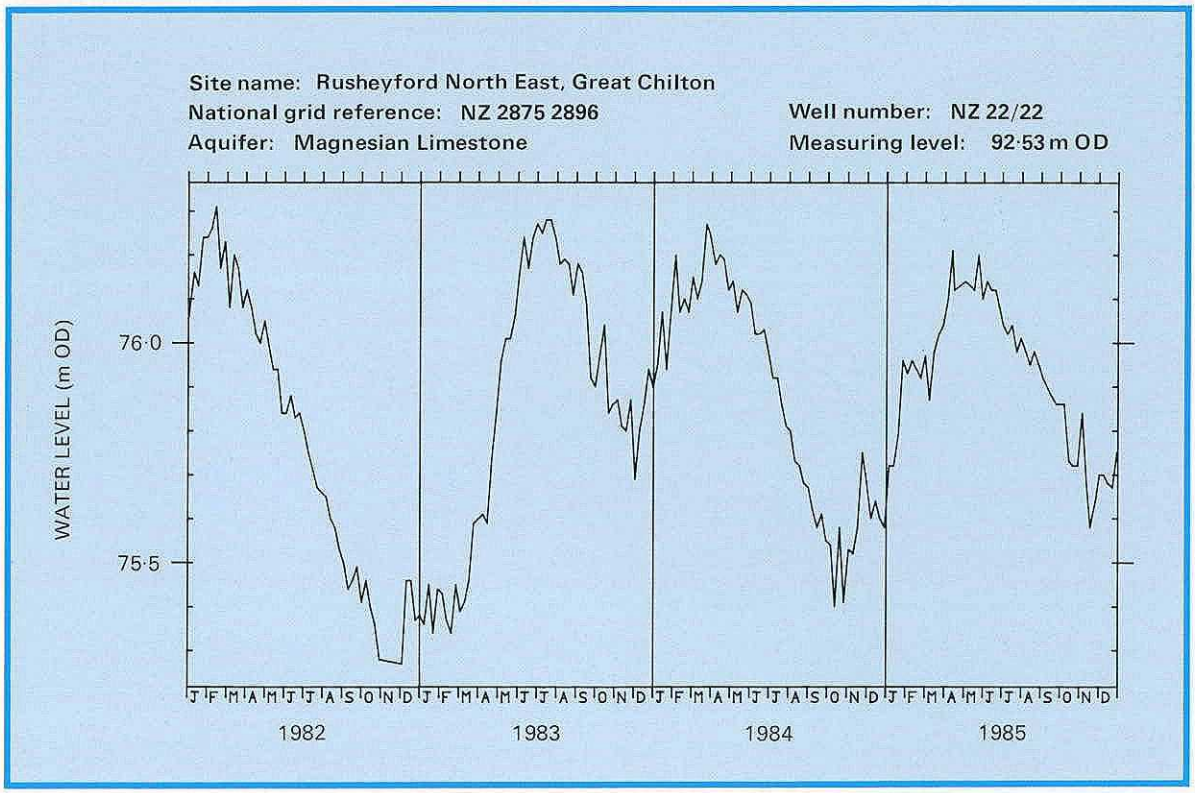


Figure 11—(continued).

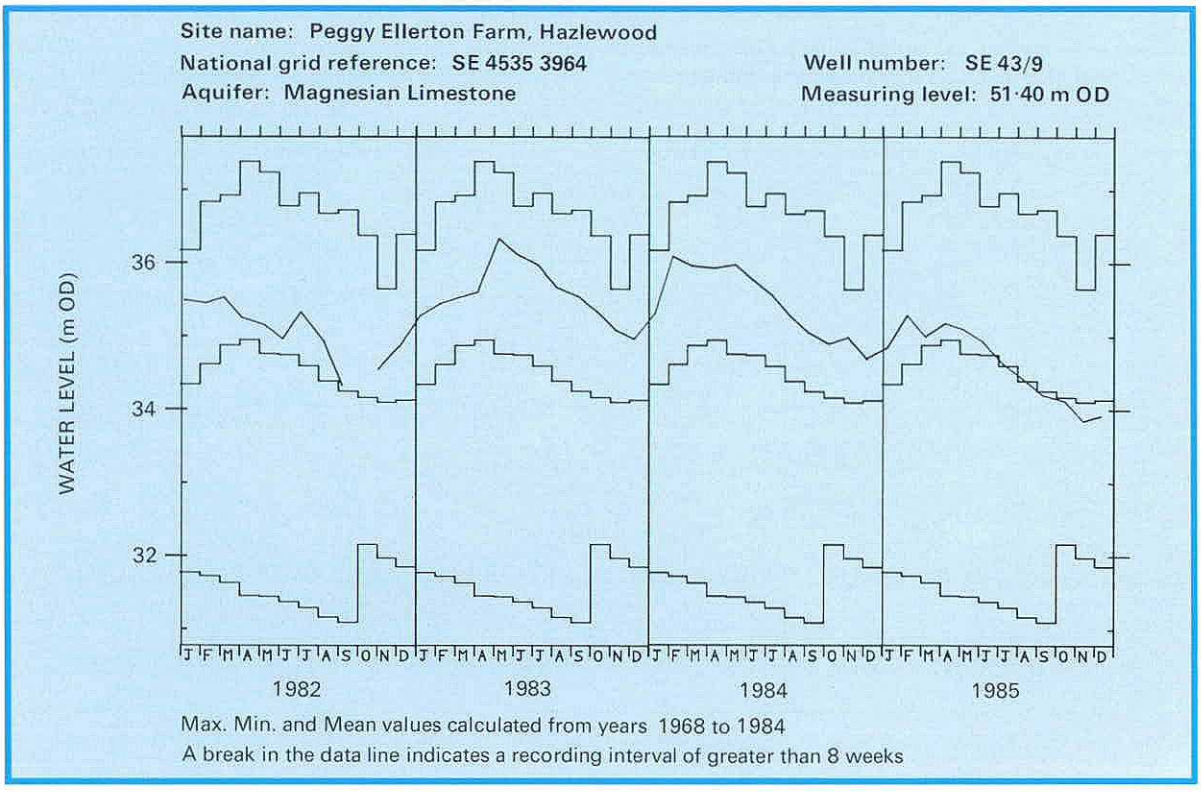


Figure 11—(continued).

INLAND WATER SURVEYING IN THE UNITED KINGDOM – A SHORT HISTORY

M. L. LEES

Institute of Hydrology

A seminar was held at the Institute of Hydrology in October 1985 to celebrate the fiftieth anniversary of the formation of the Inland Water Survey. At the seminar Dr R. W. Herschy presented a paper reviewing the events which led up to the establishment of the INLAND WATER SURVEY and examined the development of hydrometric monitoring over the following thirty years. This article draws directly on material provided by Dr Herschy to document the evolution of the hydrometric networks in the United Kingdom. The impact of the 1963 Water Act, and subsequent legislation, is then considered with particular reference to the growth and contraction, of the gauging station network and contemporary developments in data acquisition and archiving practices.

Introduction

The prerequisite of planning based upon analyses of data is the availability of those data and the best data are those collected with the end use in view. In the development of water utilisation there was an increasingly obvious benefit to planners, engineers and users to be realised by the adequate provision of a fund of hydrological data to allow the assessment of water resources and their optimum apportionment to meet the demands for water.

The currently well-organised hydrometric data collection systems which allow the hydrological variables to be estimated with some precision give little indication of the earlier imbalances in surveying and measuring networks. A residual example may be found in the lack of nationwide coverage in the New Series 1:50,000 Geological Maps. The measurement of each of the hydrological components went through a similar gestation, in that they were initially effected by enthusiasts and volunteer services; these were later transferred to government agencies but the dates of takeover were very different.

The beginnings of formal hydrological records

Rainfall records were begun in 1729 and evaporation measurements in 1772. In 1860 G.J.Symons founded the British Rainfall Organisation and by 1880 there were more than 2200 gauges yielding records. By 1912 this figure had risen to about 5000, at which level it stabilised. In 1919 the British Rainfall Organisation was merged with the Meteorological Office, a department of the Air Ministry.

The Geological Society had been founded in 1807 and the Geological Survey in 1835. The records from wells and boreholes, initially seen as being of value to stratigraphy, became important with regard to water resources; this importance was reflected in the sections on water supply in the map sheet Memoirs, or in the County Water Supply Memoirs. In particular, monitoring of the water levels in the Chalk aquifer below London by Clutterbuck[1] (1850) highlighted the decline in water levels with aquifer development.

Systematic measurement of three components of the hydrological cycle were thus catered for in the 19th century. The fourth, continuous runoff measurement, was restricted to the Thames at Teddington and the Lee at Feildes Weir, despite international precedents for river flow monitoring set, for example, by Switzerland, Austria and the United States. Certainly, river gauging was not as straightforward as maintaining a raingauge, or as conveniently associated with water well drilling and mineral explorations as was groundwater. Neither was there a consistent and thoroughly dominant river water usage over the whole of the country to initiate a harmonised gauging scheme for its own interests. Indeed, gauging may well have been of most use as a conciliating tool, in settling disputes between conflicting interests; navigation and water mill usage, for example.

The general excellence of the rainfall survey added to frustration in that it allowed estimates of runoff to be made for use in river and reservoir engineering and thus proved a disincentive to more specific measurements.

Early proposals for a water resources survey

In the 19th century spurs or initiatives to set up gauging networks were provided by: a series of

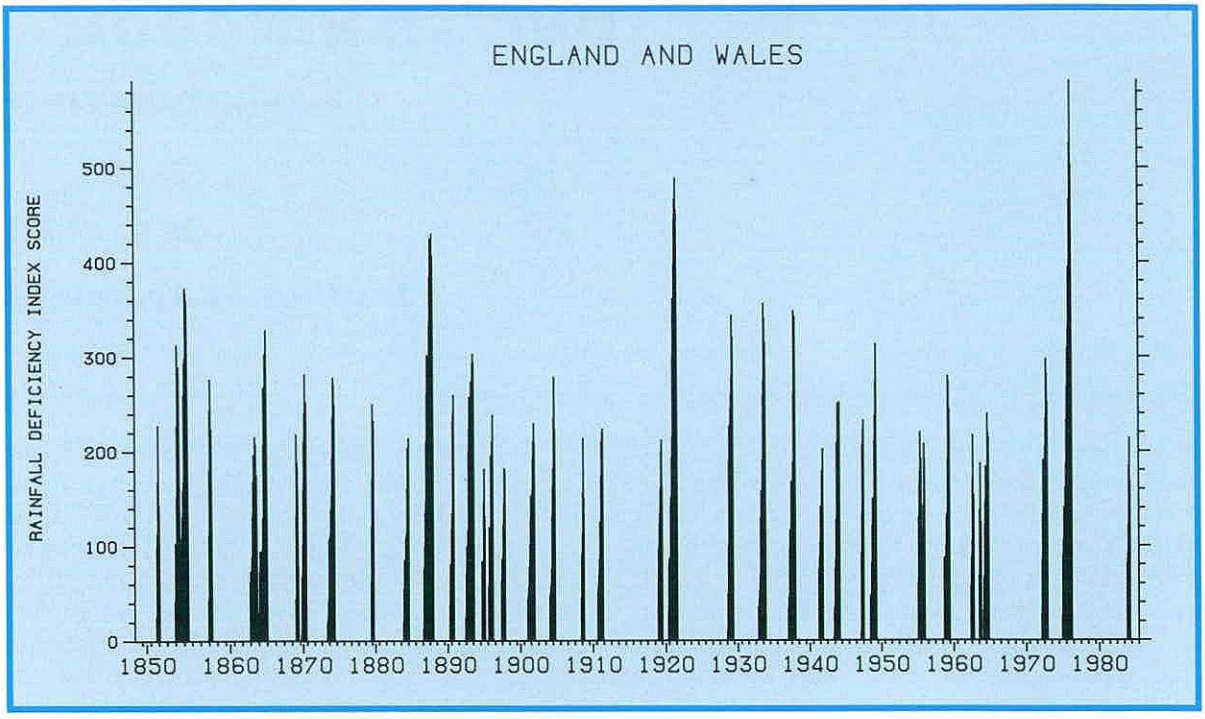


Figure 12. Rainfall deficiency index for England and Wales – based upon accumulated departures of monthly rainfall totals from the long term average. Details of the computations involved are given in 'The 1984 Drought' (see page 199).

significant droughts, particularly those which occurred in 1854–8 and 1887 (Figure 12); the publication by the Ordnance Survey of a catchment boundary map for England and Wales (subsequently editions for Ireland and Scotland were published); discussion, by the British Association for the Advancement of Science (British Association) in 1878, of hydrological measurements and the consequent suggestion for a hydrogeological survey of England[2]. Also in 1878, a paper was presented at the Royal Society of Arts in which runoff measurements from uplands were proposed[3]; C.E.De Rance published a book in 1882 which contained estimates of rainfall within the Ordnance Survey's river basins, delineated the major aquifers and described the quality and quantities associated with existing supplies[4]. The industrialisation of parts of Britain was leading to concern about pollution and River Pollution Prevention Acts of Parliament were enacted in 1876 and 1893 following Royal Commission Reports of 1865 and 1868; a Royal Commission on Sewage Disposal was set up in 1898.

There was continuing activity up until the outbreak of the First World War. Resource estimates from all major watersheds was urged by the Salmon Fisheries Committee in 1902[5]; in 1910 a Joint Select Committee of both Houses of Parliament recommended a survey of the water supply of the country. Subsequently Parliament required that Water Undertakings should submit returns as to their sources of supply and the volumes of water supplied. A circular was issued in 1914 by the Local Government Board and 2160 replies were received. The Royal Commission on Sewage Disposal in its 8th report (1912) recommended that effluent standards should be adjusted according to the character of the receiving watercourse[6]. Observations were made on various rivers during the enquiry, to assess the moderating effects of dilution and subsequent self cleansing, so the value of river flows recorded on a routine basis was recognised.

Gauging practice

Although any national effort was still not evident, some routine gaugings were already taking place. The technology was established. Current meters, of different designs, had been used in Italy and Germany since 1786. The 19th century had seen the development of hydraulic theory governing sharp edged and long based weirs, velocity distributions in open channels and stage-discharge relations. A paper by S.C.Chapman, a water supply engineer, in 1910 described runoff recording using weirs on South Dartmoor catchments[7]. Comparison of these data with raingauge data demonstrated seasonal, annual and geographical variations in catchment yield. The discussion brought out further examples of the value of continuous recording of rainfall and runoff for water supply undertakings. The Lee and Thames examples have already been cited but the most famous systematic river gauging using current meters was undoubtedly that on the River Garry by Captain W.N.McClean, not least as the work was funded by himself (see pages 49 to 54). This gauging was to cease in 1915 owing to the first World War. Other gauging results from Scotland[8] and the Derbyshire Derwent[9] reported at the Institution of

Civil Engineers in 1913 attracted comments from a bemused American engineer, Clemens Herschel, who asked "why Britons tied themselves in knots, measuring rainfall to deduce runoff, instead of measuring the latter directly?".

A manual called 'River Gauging' was published in 1917 by G.B.Kershaw, who was Technical Secretary to the Royal Commission on Sewage Disposal[10]. In 1920, the Department of Industrial and Scientific Research (DSIR) established a committee for river flow measurement. A significant natural event, the 1921 drought (see Figure 12), must have concentrated attention upon water resources and effluent dilution, but no formal survey was established. The DSIR committee's deliberations on river gauging bore fruit in 1922 and 1925 with publications on current metering[11] and gauging methods[12] respectively by M.A.Hogan, their Technical Secretary.

1920s survey pressure

In 1920, the Board of Trade set up the most relevant committee to that date, the Water Power Resources Committee, whose 2nd and 3rd reports (1920 and 1921)[13] proposed the setting up of a committee to compile records pertaining to the size and requirements of water resources and a rationale for allocating them, recognising that river gauging would be necessary to supplement existing information. W.S.Allard, subsequently to become Engineer in Charge of the Inland and Surface Water Surveys, believed the proposal that a committee should allocate water resources was too hot a political potato; the proposal was not acted upon[14].

The Institution of Water Engineers, at their 1921 annual general meeting, discussed survey matters; in 1927 W.N.McClean presented a paper on the River Garry measurements[15] and in 1929 he published an instructional booklet, 'Stream Flow and Underground Water Records'[16]. He also recommenced gauging the Garry.

The Ministry of Health, being the department concerned for the water supply industry, had an active Advisory Committee operating throughout the 1920s. This Committee, in considering the assessment of compensation water (that is, a statutory minimum flow maintained in a river below an impounding reservoir), were guided by the recommendations of the 1910 Select Committee in the use of stream gauging in the determination of catchment losses and variability. In 1928 the Minister of Health recommended the formation of Regional Water Committees to arbitrate in districts of multiple demand, recognising the paucity of information regarding surface supplies and the benefit to be realised by the collection of appropriate data by these committees.

In leaving the 1920s it appeared that the recommendations of the engineering profession, which was in the forefront of agitation for a survey, were going unheeded. The early part of the 1930s saw some significant legislation, a pertinent natural event - another severe drought - and the pooling of resources by the scientific and engineering fraternities to increase pressure on the government to formalise runoff measurement.

The 1930s; The British Association and the Institution of Water Engineers

Two relevant Acts of Parliament were passed in 1930: First, the Reservoirs (Safety Provisions) Act which had been presaged in 1865 by the recommendations of a Select Committee and spurred by dam failures at Dale Dyke (Sheffield) in 1864 and at Dolgarrog (Snowdonia) in 1925. In order to ensure adequate spillway design, continuous flow records from gathering grounds were deemed necessary, rather than relying on rainfall conversion to runoff. Second, the Land Drainage Act allowed for the setting up of joint committees concerned with individual or groups of river basins; the beginnings of river boards.

The British Association, in 1932, appointed a multidisciplinary committee, with McClean as secretary, to enquire into the structure and management of an Inland Water Survey. They reported the following year, concluding in a lengthy memorandum[17], that a systematic survey of water resources was urgently required and that "to be of maximum utility, should be conducted by a central organisation, preferably under a Government Department, independent of any interest in the administration, control or use of water". The memorandum discussed the requirements, structure and scope of a survey covering all aspects of inland waters, including rainfall, surface and ground waters, with submemoranda relating to water quality, amenity, navigation, fisheries, impoundments and power generation. So as to expedite the progress towards a survey the Institution of Civil Engineers was invited to assist in initiating one with private funds but in spite of much effort this aim was not achieved.

The Political Dimension

At this stage, the interested professions had done all they could in achieving unity of purpose and support at the highest level; in June 1934 the British Association and the Institution of Civil Engineers made an application to the Rt Hon. Ramsay Macdonald M.P., the Prime Minister, to consider a survey for water resources assessment. This was at the height of the 1933-34 drought, perhaps a convenient concurrence of events. The application suggested the DSIR as the appropriate departmental agency to set up a special board to manage the water measurements and collect the data, stress throughout being laid on impartiality and independence. At the same time the 1933 Memorandum was submitted, along

with a request for the Prime Minister to receive a deputation to pursue the matter.

It is unlikely that the British Association's report of 1933 had gone unheeded; it certainly had relevance to the Ministry of Health. The reply from the Prime Minister to the request indicated which way the Civil Service advisors were thinking as, in the absence of the Prime Minister who was ordered to take a holiday on medical grounds, an appointment was made with Sir Hilton Young, the Minister of Health. The Minister, of course, requested a briefing and study of this indicates the lateral thinking practised by the administrators when considering an implementation of the British Association's request: a general water survey would serve no practical assistance to the development of the bulk of the water supply sources; if it were desired to go some way towards meeting the demands for a survey then Water Undertakings, Catchment Boards and Mine Owners might be persuaded to take the necessary measures to provide annual returns. The Ministry of Health, Ministry of Agriculture and the Geological Survey would undertake the collation of the data. No DSIR involvement was recommended. An alternative was to legislate to ensure the returns, but this was not favoured in the first instance. The DSIR showed condescending interest, it not being the sort of service falling within the Department's normal functions.

When the visiting engineers and scientists met the Minister, Sir Henry Maybury (President, Institution of Civil Engineers) introduced the deputation (Sir James Jeans, President, British Association, was indisposed) to him and to representatives of other Departments; the Ministries of Health (Scotland), of Agriculture, of Transport, the Scottish Office and the Electricity Commissioners were all involved. There was no DSIR representation. The results of the meeting reflected the Minister's brief. The then current drought was not considered to have any leverage and was dismissed as more a problem in evaluating whether higher insurance premiums were worth paying to insure against such a rare event than a justification for expenditure to collect data. The Engineering Inspectors of the Ministry of Health had been collecting information regarding sources and abstractions; The Geological Survey had collected data on subsurface waters; Catchment Boards were (theoretically) able to undertake the gauging of rivers and water statistics were already published in a Year Book issued by the British Waterworks Association. An extension and improvement of this machinery would be the best route forward and only if these proved ineffective would other means of proceeding be considered.

The deputation's disappointment was sharpened by scepticism regarding the likely quality, and consistency, of the proposed annual returns, serious doubts as to whether the mere fact of asking for data would, in itself, stimulate any improvement or extension of river gauging activities and the limited scientific content in the suggested programme. There was a realisation that the Geological Survey would have to be involved. Some internal minutes could be interpreted as being disparaging to other Departments or organisations; problems were anticipated with the DSIR as it was feared that the measures could be too practical to please the scientists. It is evident that unminuted discussions took place both within and perhaps outside of the ministry, and are therefore not held in the Public Records Office. As a result, Sir Hilton Young *was* persuaded to form a water committee to manage flow data.

Following an agreement by the Scottish Office to participate, Scottish representatives joined the proposed committee and its structure was settled by the beginning of December 1934. On the 6th, Lieutenant-Colonel Ackland-Troyte (Conservative, Tiverton) put a question in the House "To ask the Minister of Health whether he is in a position to announce further measures in connection with an Inland Water Survey?". In response, the Minister announced that a comprehensive Inland Water Survey should be undertaken for Great Britain. Information was to be secured from appropriate bodies and encouragement given where records were not kept. A Water Survey Committee, composed of members from outside of Government Departments would be appointed to advise on the survey and the progress of measures undertaken. Reviews and recommendations would feature in an annual report. In answer to further questions, the Minister replied that he did not believe any substantial government expenditure would be required. The willing of ends without the willing of means is a recurring theme in relation to the development of hydrometric survey in the United Kingdom. Despite misgivings about the effectiveness of the committee's remit it is notable that a mere six months elapsed between the initial approach to the Prime Minister and the statement of intent in Parliament; an intriguing contrast with the unproductive history of the previous sixty years.

The early years of the Survey

A reconnaisance of the data available from the various water undertakings was duly carried out during the first year of the Inland Water Survey and about 3000 replies to a comprehensive questionnaire were received. As may have been feared, the majority of the information was not amenable for conversion to runoff, related, as it was, to stages, compensation discharge or abstraction records. Those gauging locations which were in operation generally needed improving and to make the survey comprehensive a large number of new stations would be required.

Three Annual Reports were produced by the Inland Water Survey Committee before 1939, when the outbreak of war curtailed its activity[18]. Of the 28 gauges producing runoff records about two-thirds

were those of water supply undertakings gauging small upland streams and reservoir outfalls and these formed the bulk of the records published in the two Surface Water Year Books of 1935-36 and 1936-37 (see Table 6). Seven of the remaining stations were gauged by McClean. The Committee were of the opinion that the catchment boards were the appropriate bodies to install gauging schemes but, in spite of persuasion, river basin investigations and the potential attraction of grant aid, few catchment boards were prepared to follow the recommendations of a technical handbook published in 1936, called 'Memorandum on the Water Survey of a river system'[19]. It was evident that the Government's hope that reconnaisance and persuasion would promote the collection of resources data at little cost to the Exchequer was doomed and a statutory framework would be necessary to require the gauging of rivers.

The situation was no better in Scotland, although the Department of Agriculture and Fisheries for Scotland had made grant monies available for station installation (£500 in each of two years), but, given the problems of calibrating the larger rivers with inadequate equipment (e.g. no cableways or heavy sinkers for current metering), gauging was not carried out at the most advantageous sites.

The Groundwater Survey

A similar lack of a suitable statutory framework was affecting progress in the assessment of groundwater resources. Well records were supplied voluntarily by well sinkers or owners but related generally to construction and testing. Abstraction details could only be asked for and details of water level fluctuations were usually restricted to those wells in use for supply. Such sites are of limited value for monitoring purposes due to the effects of the pumping regime on the water table in the vicinity of the borehole. Lapsed production wells did provide genuine observation boreholes if observers could be found to measure them.

Post-war; progress and set backs

The obvious shortcomings in the Survey's effectiveness were discussed and considered during the war years. In 1942 the Institution of Civil Engineers published a report on the post-war development of a water resources survey[20]. It advocated a disinterested government department's control amongst other measures. The third report of the Central Advisory Committee of the Ministry of Health recommended the establishment of a network of River Boards, one of whose responsibilities would be systematic flow gauging[21]. Their wider duties would include land drainage, fisheries and pollution. The report highlighted the scarcity of data relating to flow and river quality.

Acts of Parliament, 1945 and 1948

In 1944 a White Paper was issued, entitled, 'A National Water Policy'[22]. Fortuitously or otherwise this also coincided with a severe drought but the proposals in the White Paper were the most encouraging then seen, containing the sentence: "The Government consider that collection and collation of scientific records of the flow of rivers and of information regarding the quality of water and the behaviour of underground water sources should be resumed and pressed on with vigour as soon as circumstances permit." "The task of the survey would be to make available ...to all who needed it, information as to the yield, behaviour and quality of the country's water resources."

The reversion to a normal Parliament after the war did not deflect commitment to the White Paper and in 1945 the Water Act was passed. This gave responsibility for conservation and proper use of water resources to the Ministry of Housing and Local Government. The Water Act was notable for its effects regarding groundwater; well sinkers were obliged to notify the DSIR of the details of the drilling and testing operations and abstractors could be required to keep and provide records of water taken. The proposals of the White Paper relating to river boards had to wait three years for the River Boards Act, 1948 but then, for the first time, a statutory framework required schemes for systematic flow gauging to be drawn up and implemented.

North of the border it was incumbent upon the Secretary of State to collect, prepare and publish data relating to water resources as detailed in The Water Act (Scotland), 1946; the work on the ground was carried out by the Department of Agriculture and Fisheries for Scotland, water supply authorities and the North of Scotland Hydroelectric Board. The evaluation of the power generating capacity of Scottish rivers by the NSHEB had yielded data from the more remote, high rainfall, high relief areas; no other land use would have provided such a motivation. Many of the gauges did not prove to be permanent as inundation or regulation by the power generating schemes overtook them.

The seedling of the Institute of Hydrology was planted in 1948 with the establishment, within the DSIR, of the Hydraulics Research Station, which was then available for experimentation on hydrometric problems.

The Surface Water Survey Committee

The Inland Water Survey Committee was resurrected in January 1950 with activities confined to surface water surveying but with the brief, much as before, to review progress and advise through annual reports. Their fifth report recognised the widening extent of water usage and that planning and the reconciliation of multiple usage would be best served

by rapid implementation of river board gauging networks[23]. An annual publication of water statistics was deemed essential. These points may have been covered in the legislation but at this time the formation of the River Boards was not complete and the Committee would not allow these objectives to lapse for lack of promotion. A sub-committee of the Surface Water Survey recommended that a specific surveying organisation should be provided for Scotland.

At the end of 1951 a retrospective Surface Water Year Book covering the years 1937–45 was published (see Table 6). The contents of this are instructive, for it shows how little progress had been made to that time in actually producing widespread, usable flow records. It contained the records from 52 stations, 38 of which were river gauging stations. Six gauges were in Scotland (McClean's) and 14 were in the catchments of the Wye and the Nene!

Further legislation was passed for Scotland in 1951, the Rivers (Prevention of Pollution – Scotland) Act, which made provision for the setting up of River Purification Boards. Permissive powers were given to these boards to survey and gauge their rivers and this was reflected in the differing approaches to gauging in the early days of their existence.

Suspension of the Surface Water Survey

Progress towards a comprehensive national network received a setback when, in 1952, the Survey was suspended and gauging station construction discontinued due to national economy measures. Allard, in a footnote to his review paper, rightly compares the White Paper's exhortation "pressed on with vigour" with this reverse[14]. The parallel between civil service commitment in 1934 to the setting up of the Inland Water Survey may be seen with his observation that implementation of policy may depend upon the individual, interested civil servants. He advanced the mock commandment "Thou shalt not kill, yet needst not strive officiously to keep alive"!

As may be imagined, there was a considerable outcry from the deprived parties, who perceived this as a false economy and who lobbied throughout the period of suspension. Other water interests from supply, fisheries and disposal protested similarly and the scientific community weighed in with pressure from the Hydrological Sub-Committee of the Royal Society. Allard was a senior member of this group, which had contacts at a high level within Government. Allard was on good terms with the River Board chairmen and no doubt impressed upon them the desirability of maintaining the collection of data where facilities allowed.

Resurrection

The Central Advisory Water Committee was revived on the 1st October 1954 and a sub-committee on the Information on Water Resources set up. The Surface Water Survey was restaffed and recommenced their active role. The engineer in charge of the Survey at the Ministry of Housing and Local Government was A. Gerard Boulton. One of the first achievements was the publication of the data for 1945–53 (see Table 6). Reports were made for 81 stations and the rather more interventionist role of the Department of Agriculture and Fisheries in Scotland led to their significantly increasing their representation to 22 stations.

Progress was made in the submission of networks; by 1956, 27 of the 34 River Boards had submitted plans for approval. A map of the gauging stations whose flow records were presented in the 1954–55 Surface Water Year Book is shown in Figure 13. The aim was to establish a network of about 400 primary stations but steady progress towards that aim was all that could be hoped for. The Surface Water Year Books (see Table 6) were showing the fruits of collation from various sources; for instance, the Meterological Office began supplying monthly catchment areal rainfall data, and the long term analogues for the period 1881–1915.

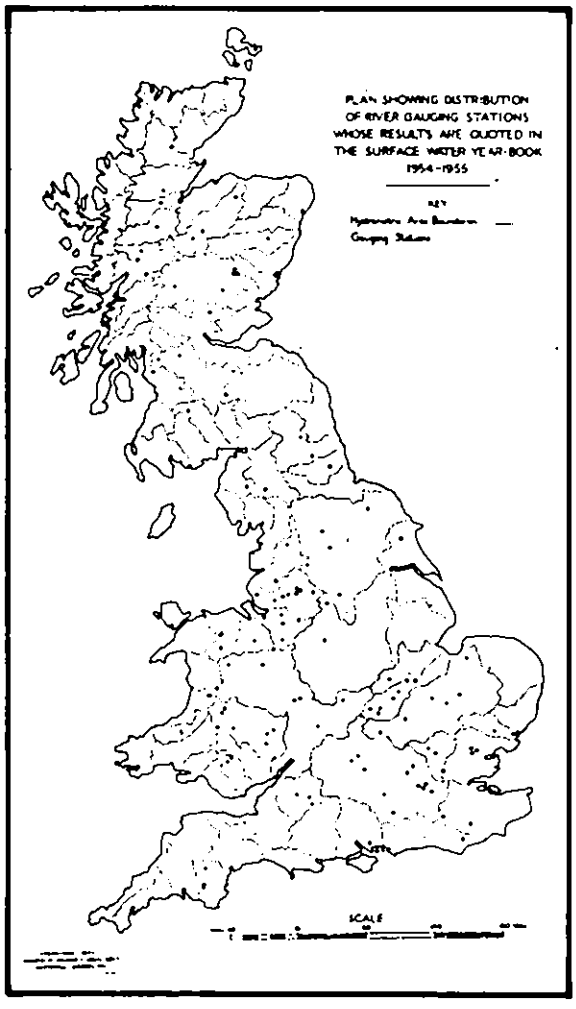


Figure 13. The gauging station network in 1955.

The Central Advisory Water Committee recommendations

The subcommittee of the Central Advisory Water Committee on Information on Water Resources submitted their report in December 1959[24]. This reviewed the measurement and collection of all data related to the hydrological cycle. By this time all the River Boards had submitted schemes for rainfall and stream gauging or had satisfactory schemes in operation. River Boards were expected to proceed with the implementation once schemes had been approved. The Surface Water Survey needed to be satisfied of the accuracy of any derived record before allowing publication of data. The report stated that more than 100,000 well records were in existence and that the rate of increase was about 2000 each year. It was noted that, although the evaluation of the catchment areal rainfall values for more than 100 river gauges put a severe tax on the Meterological Office's rainfall section, it should continue as most of the flow records were, at that time, short. The existing or proposed arrangements for the collection, interpretation and publishing of information broadly met the known need. The recommendations included the determination of the extent of hydrological research and to co-ordinate it; improvements were hoped for with regard to the collection of precipitation and groundwater data; vigorous action should be taken to set up the remainder of the flow gauges within the next 2 or 3 years; bodies with a legitimate interest should have access to the outline gauging schemes; and that hydrological data should be presented on the common basis of river basin areas.

Running in parallel was another sub-committee of the Central Advisory Water Committee, that of The Growing Demand for Water. This group produced three reports, the first of which estimated that the increase in demand between 1955 and 1965 would be of the order of 25 per cent and that new measures for the control and development of water resources might be required[25,26,27]. The final report concluded that new authorities were needed to plan and implement the ordered development of resources and that the new bodies, 'river authorities', should be responsible for conservation, land drainage, and flood control and would supersede the River Boards. Existing and future abstractions of surface or ground waters should be subject to licence and thus provide revenue. A central authority should oversee the river authorities and promote an active policy for the conservation and proper use of resources and co-ordinate any regional planning. Subsequently a White Paper was issued in 1962 entitled 'Water Conservation in England and Wales' which incorporated these recommendations[28].

The Water Resources Act 1963

River Authorities were duly formed after the Water Resources Act 1963 was passed. The role of the Surface Water Survey became a function of the new authority, the Water Resources Board. Hydrometric schemes were to be prepared and submitted for approval by the Water Resources Board; section 15 of the Act relating to measuring rainfall, evaporation and surface water and section 18 similarly for groundwater. Grant aid for capital works was permitted under section 89 and research under section 90 of the Act.

At the time of the formation of the River Authorities the number of gauging stations in operation (as reflected by the 1963-64 Surface Water Year Book) was 295 in England and Wales and 69 in Scotland. There were more stations commissioned but their calibration was incomplete.

This Act gave the most tremendous impetus to river gauging. The Water Resources Board 2nd Annual Report (1965) gave the number of operational gauging stations as 410 in England and Wales[29]. An inference of this larger number of stations was a growing workload in processing data to flows, and utilising the flows thereafter. Following United States Geological Survey practice, punched tape recorders were recommended as recording instruments, and initially the Meterological Office's computer at Bracknell was used to process the data, after a translation process had been completed at the Water Resources Board. A case was made for a Water Resources Board computer to carry out this processing work.

The following year, under section 15 of the Act, Hydrometric Schemes were submitted to the Water Resources Board for approval. The approximate numbers of stations proposed in the completed networks would be: 5000 rainfall; 600 evaporation; 1500 flow; 400 quality monitoring. New style Surface Water Year Books were proposed, which would be generated within the computer and the output photographed and printed.

The International Hydrological Decade 1965-1974

The implementation of the 1963 Act coincided pertinently with two events: first, the Science and Technology Act in 1965 saw the dissolution of the DSIR and the formation of the Natural Environment Research Council (NERC), which had the power to grant funds for hydrological research. The Hydrological Research Unit, located with the Hydraulics Research Station near Wallingford, was transformed into the Institute of Hydrology. Second, the International Hydrological Decade commenced in 1965. Member countries of UNESCO agreed to support a long term international co-operative effort in hydrology. Many items of the 50 or so which were in the

programme were already covered by some British agencies. Research programmes were identified for about 50 catchments, some to accord with the establishment of experimental and representative basins[30]. Of the latter, some would be incorporated into River Authority hydrometric schemes; others - and the experimental basins - would be associated with the Institute of Hydrology, university departments and other agencies. Five of these proposals were in Scotland and three in Northern Ireland.

Implementation of the Hydrometric Schemes proceeded at a slower pace than was hoped. By 1970, the 7th Annual report of the Water Resources Board reported that many River Authorities had begun to reappraise their networks, reducing the planned numbers and selecting sites which they hoped would be representative of more than one area[31]. Other considerations, such as operational requirements associated with river abstractions, regulation and flood prediction, were of growing significance. To reflect this, the gauging proposals could also be considered under section 89 of the Agriculture Act, 1970, related to flood warning schemes. Formal revisions of the schemes were ordered. The revisions would, however, have been able to take into account the prospects of gauging at sites using the newer methods of ultrasonic and electromagnetic flow gauging, which allowed measurements at sites where conventional methods of gauging were inappropriate. The research into these methods was promoted by the Water Resources Board under section 90 of the 1963 Act.

The situation in Scotland

The expansion of the gauging network in Scotland followed a different course and was not so directly connected with enabling legislation. In 1959 a government Inter-Departmental Committee was set up with the following brief: 'To examine the arrangements for river surveying and gauging in Scotland and to make recommendations on the need for co-ordinating and extending the work and on the co-ordination and publishing of the information provided by it'. The Committee had representatives from the Department of Health, Department of Agriculture and Fisheries, the Scottish Home Department and the North of Scotland Hydroelectric Board. The River Purification Boards and the Scottish Council (Development and Industry) were involved in the discussions. The Committee reported in 1961, deciding that the most appropriate framework would be a central organisation with central funding[32]. The proposed network would be of 77 primary and 140 secondary stations.

A pragmatic course was followed, however, as the River Purification Boards were intent on developing their gauging networks. At a meeting in 1963 with all interested parties, a programme for the construction of 80 stations by the end of the following year was presented; grant aid was expected to be provided. The River Purification Boards did not encompass all of Scotland; areas to the north of the Great Glen Fault had more local arrangements for the implementation of the 1951 Act. Subsequently a Working Party reconsidered the Inter-Departmental Committee recommendations and advocated that the committee's proposed network should form a basis for Scottish gauging but should be flexibly applied[33]; in the areas of the 6 southernmost River Purification Boards, the boards' programmes for stations could be assumed to meet the national need. Elsewhere the Department of Agriculture and Fisheries would deal with the network stations. Studies or investigations into data processing and publications were recommended.

A Joint Committee on River Survey and Gauging was set up in 1965, comprising the Department of Agriculture and Fisheries, Scottish Development Department (SDD), the River Purification Boards and the Institution of Water Engineers. It reported later that year, recommending the use of punched tape recorders, metrication and arguing for Scottish data processing[34]. The latter was not realised as use was made of the Water Resources Board's processing facilities. The SDD began to offer grant aid towards network station construction costs in return for the River Purification Boards taking over the SDD stations in their areas.

With the River Purification Boards and the SDD busy constructing stations, progress with the network was steady, from about 78 in 1966 to 100 in 1970 and 130 in 1974.

The situation in Northern Ireland

Northern Ireland was the last country in the United Kingdom to collect the full range of hydrological data. Before 1945 virtually no hydrometric work on rivers was undertaken; one gauge recording level only. Subsequently some thin-plate weirs were installed for purposes of monitoring certain individual public water supply sources. These data were not routinely collated. A chart record was begun on the Lower Bann and this and other staff gauge records throughout the Province are held by the Department of Agriculture (Northern Ireland). There was some catchment activity which involved data collection for most of the hydrological variables in three areas which were listed in the programme for the International Hydrological Decade. The earliest flow measurement station for hydrometric purposes was constructed in 1969 on the River Lagan in anticipation of an Act of Parliament (passed as the Water Act - Northern Ireland, 1972) which placed the duties of promoting conservation and cleanliness with the Department of the Environment (Northern Ireland). The DOE(NI) is now responsible for all aspects of water and sewage, environmental pollution and water research; urban and arterial drainage

and the provision of facilities for recreation are the responsibility of the Department of Agriculture.

Currently, the bulk of the gauging stations are velocity-area stations; these number a little more than 50. There are few structures; these total about 10.

Integrated basin management; the 1973 Water Act

Wider consideration of water conservation and usage had been under review in England and Wales by the Central Advisory Water Committee since 1969, in the light of a Royal Commission report on Local Government. The Committee reported in April 1971 (The Future Management of Water in England and Wales)[35] and their main recommendations, presaged by Water Resources Board submissions to the Central Advisory Water Committee published in the Seventh Annual Report[31], were that further integration of the Water Industry was desirable, incorporating supply, disposal, river management, planning and co-ordination. Large regional bodies would take on these roles, overseen by a national body. A Government Circular published in December 1971 indicated their interpretation of the Central Advisory Water Committee Report[36]; 10 Regional Water Authorities would be set up in England and Wales but no national Authority; a central body to represent the industry to government and provide central services would be set up. Nothing specifically related to hydrometry was included in the Circular other than could be inferred by the need for data to service the long term review plans the regional water authorities were to make. These proposals were incorporated into the Water Act 1973.

Reviewing the early results of the necessary involvement of computers in hydrological data processing and dissemination it may be said that it did not yield altogether satisfactory results. Whilst allowing greater processing accuracy for a much increased network size, the archive produced was, by today's standards, inflexible and difficult to access and manipulate. The existence of a central archive served to reduce the priority attached to the prompt publication of data and the availability of yearbooks grew evermore behind the collection of flow data; many fewer basic flow values were presented, the emphasis switching to catalogues of gauges and summaries of retrievals. This did not find universal favour with data users. On the other hand, the 1960s and the early 1970s probably saw the most diligent hydrometry practised, with good staffing levels and enthusiastic and committed workforces and organisations.

The Water Resources Board had overseen the inauguration of a computer based national archive, designed initially by the Surface Water Survey, the logical extension of which was the data processing facility provided for River Authorities and River

TABLE 6 NATIONAL RIVER FLOW DATA PUBLICATIONS

Edition	Series title	Years covered	Publication date	Organisation	Publisher
1	The Surface Water Yearbook	1935/36	1938	Inland Water Survey	H.M.S.O.
2	of Great Britain	1936/37	1939	"	"
3	"	1937/45	1952	"	"
4	"	1945/53	1955	"	"
5	"	1953/54	1956	Surface Water Survey	"
6	"	1954/55	1957	"	"
7	"	1955/56	1958	"	"
8	"	1956/57	1959	"	"
9	"	1957/58	1959	"	"
10	"	1958/59	1960	"	"
11	"	1959/60	1961	"	"
12	"	1960/61	1962	"	"
13	"	1961/62	1963	"	"
14	"	1962/63	1965	Water Resources Board	"
15	"	1963/63	1966	"	"
16	"	1964/65	1968	"	"
17	"	1965/66	1971	"	"
18	"	1966/70	1974	"	"
19	Surface Water: UK*	1971/73	1978	DOE-Water Data Unit	"
20	"	1974/76	1982	"	"
21	"	1977/80	1983	DOE-WDU and IH	"
22	Hydrological data: UK*	1981	1985	Institute of Hydrology	NERC
23	"	1982	1985	"	"
24	"	1983	1986	"	"
25	"	1984	1986	"	"
26	"	1985	1987	"	"

*These publications also contain data relating to groundwater.

Purification Boards. Although never responsible for all the machine processed data, the central processing service continued for 15 years, being taken over by the Department of the Environment's Water Data Unit after the 1973 Act. At the time of its dissolution, the Water Data Unit maintained national archives of river flow, groundwater levels in observation boreholes and water quality (The Harmonised Monitoring Archive), the first time that such a range of data was managed by, and available through, a single agency.

The recent past

The regional water authorities (henceforth 'Water Authorities') created in England and Wales under the 1973 Act were under no specific obligation to gauge rivers. They were obliged to furnish data on request to the Secretary of State to allow him to collate and publish information relating to water demand and resources. In practice, the Water Authorities continued to gauge rivers for their own, generally operational, convenience. It is difficult to assess the progress of hydrometry in isolation following the setting up of the Water Authorities. There is little doubt that it had a less protected status than in the days following the 1948 and 1963 Acts. Other contributary factors include first, the irresistible move towards 'multi-functionalism' in the Water Authorities which generally infers a shared, instead of a dedicated, workforce to undertake monitoring and maintenance work and second, the incorporation of the supply and disposal functions which had far inferior measuring networks for the assessment of water movement, with the result that resources were shifted towards improving their measurement procedures.

Data processing slowly became the province of the Water Authorities and the River Purification Boards; this was hastened finally when the DOE Water Data Unit was disbanded. The stewardship of the national flow archive was passed to the Institute of Hydrology who have redesigned the annual publications (the successors to the Surface Water Year Books and Surface Water: United Kingdom volumes) and are reducing the lag between data receipt and publication. Details of the full series of national river flow data publications are summarised in Table 6.

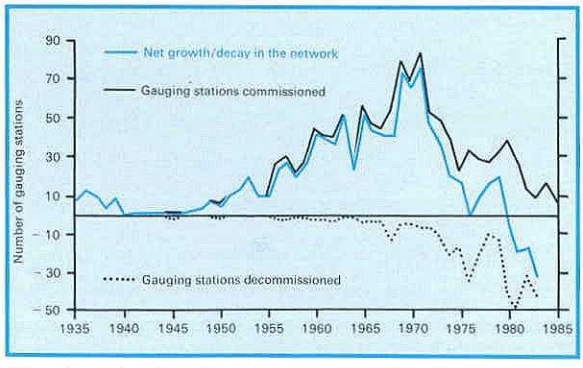
The 1983 Water Act primarily affected the management of and representation on the boards of the Water Authorities. Manpower has been severely squeezed since that time following tighter budgetary constraints and networks have taken their share of cuts, often in successive cycles of pruning. The contraction in the gauging networks (see Figure 14) is related to both the excision of stations deemed superfluous or performing poorly and a practical response to a lower financial input; where the dividing line exists between these reasons is debatable. Certainly, a number of stations operated primarily for strategic planning or research purposes have been closed, to the regret of the data users.

One mitigating element has been the contribution of microcomputers, logging systems and telemetry in transforming the potential for data capture and transmission. The use of such technology has allowed the continued operation of gauging sites which would have closed through lack of manpower. The field hydrometry may have suffered, however, with less frequent site visits and a less fastidious approach to the maintenance of stage-discharge relations.

The 50th anniversary of the Inland Water Survey and the current situation

Figure 14 presents the numbers of stations producing sensibly continuous records of daily mean flows as stations whose records begin and those which cease in any one year. The geographical spread of gauging stations in 1985 is depicted in Figure 15. It may be seen that, although during the 1980s there has been a net fall in the gauged network, new stations have continued to be installed, many as replacements for less sensitive gauges, others as fulfilments of a long term aim, perhaps making use of the wider applicability of the newer technologies, and others as a response to an operational demand. There has certainly been an increase in the numbers of restricted range stations, generally gauging lower flows, which do not have their data featured in the national archive. There is a continuum from these through to primary 'network' stations as it is likely that there is some variation in the interpretation of 'full range' in different parts of the country, according to the degree of containment of high flows and sensitivity at low flows.

The situation in Scotland is different, as few gauges have been closed. The network density in Scotland is significantly lower than in England and Wales, particularly in the remote areas (see Figure 15), where it continues to be developed. The interest in acid rain studies has undoubtedly promoted increased catchment based research.



Where the number of 'gauging stations commissioned' equates to the 'growth of the network', the black line has been suppressed.

Figure 14. The growth and contraction of the United Kingdom gauging station network.

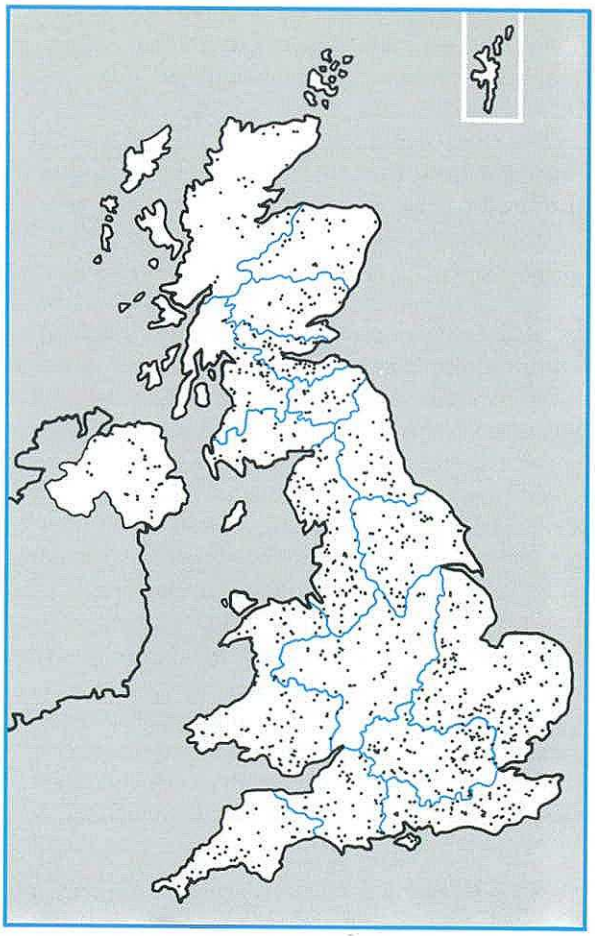


Figure 15. The gauging station network in 1985.

Those catchments which were set up under the aegis of the IHD have had a variable history. The Water Authorities should not be the sole targets for those who complain of the cessation of gauging on the more esoteric catchments, that is of small, well instrumented, unmodified, homogeneous headwater or flat lowland catchments, and highly urbanised catchments or those undergoing urbanisation. Some gauges have been transferred from universities and government agencies to, and operated by, the River Authorities and subsequently the Water Authorities. Some have been transferred in the reverse direction. With a few exceptions the burdens of routine data collection and particularly maintenance have proved too costly for research orientated organisations. The inability to promote successful research applications for successive or continuing use of data from these catchments has been a factor. Coupled with the lack of central direction to oblige Water Authorities to continue operations on such catchments, either by the provision of funds or by the stated requirement for the data by the Secretary of State, these factors have inevitably led to the majority being closed.

A catchment size distribution in 1985 is depicted together with some historical distributions in Figure 16. The infilling of the network by gauges on smaller catchments after the establishment of gauges on the major tributaries may be seen by reference to the

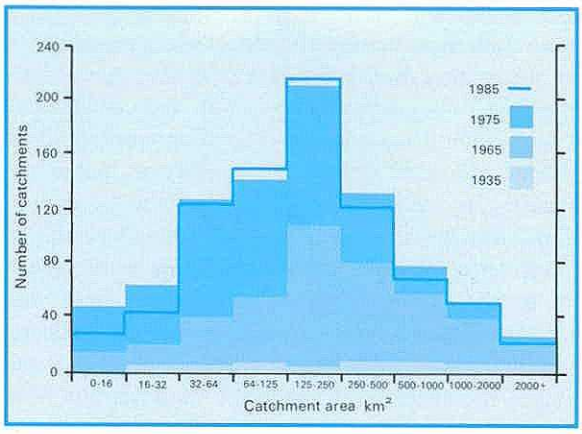


Figure 16. Distribution of catchment sizes for gauging stations on the national surface water archive.

1965 and 1975 traces. A second important feature is the recent reduction of numbers at the lower end of the size range.

The distribution of record lengths is shown in Figure 17. In international terms the United Kingdom has a relatively dense current network. This reflects the great heterogeneity of the British Isles, with its long coastline, many small river basins and diverse climate, geology and land use. The UK is less well blessed in terms of the length of flow records – the arithmetical mean is 16 years and there are only 12 stations whose records exceed 50 years, probably too few to give a good historical perspective to regional flow regimes.

In these cost conscious days, the question will be repeatedly asked, cannot the gauging density be reduced, as we have sufficient data to allow models to estimate flows in the majority of watercourses by extension or prediction from fewer, key stations. A number of points may be made here. First, can we be satisfied that the data we have collected would allow us to characterise or anticipate future changes in the flow regimes within the United Kingdom? Second, with the growing importance of environmental monitoring, does the nature and scope of the flow

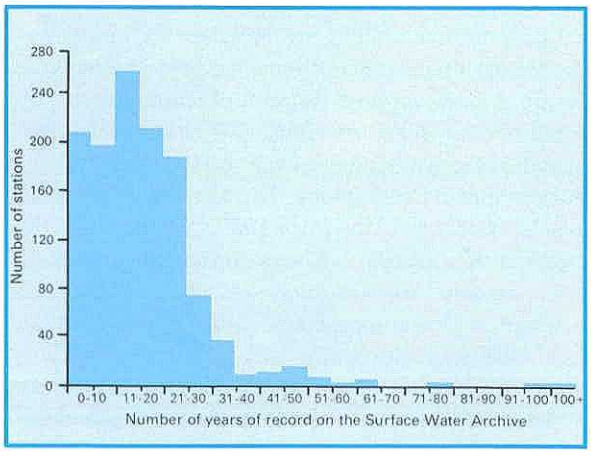


Figure 17. Distribution of record lengths for gauging stations on the national surface water archive.

record allow accurate and appropriate enhancements to chemical or biological data to clarify our understanding of waterbourne pollution and its impact? Third, should we consider that a network of flow gauges, designed primarily to evaluate water resources, and now a service component for operational management, fully meets the requirements of the wider community outside the Water Authorities?

In the earliest days of the survey there was always a desirable objective for the enhancement of the monitoring network. The developing industrial usage, the increase in domestic consumption, the satisfying of conflicting demands all pointed initially to a water resources interest; gauging was necessary to see how much water was there. After the second World War when there was a great push towards increased agricultural production, land drainage became increasingly important. The 1960s saw the emphasis return to water resources and the effective completion of a basic network. With the implementation of some of the larger resource schemes in the 1970s, interest grew in water quality and pollution control; blending of water from different sources before distribution began to be more widely practised and the Control of Pollution Act 1974 promised wider powers to effect improvements to water quality.

It is hoped that the network will remain relatively stable for the forseeable future. In the 1980s the needs for hydrometric data are broadening, particularly in relation to environmental issues. The improvements to river quality, recognised in the 1970s, have in many areas been halted or reversed; acid rain studies have already been mentioned by reference to Scotland; in England, nitrates and other contaminants in water may provide a similar impetus for increased or more specific monitoring. The value of a good network is that it could provide the flexibility to service the varying data needs of the differing interests.

Conclusion

The collection, assembly and provision of hydrological data records should not be taken for granted as the history of the last 100 years has seen oft changing fortunes and varying degrees of commitment by governments for surveying. We have been bequeathed a considerable heritage by the Inland Water Survey and its successors. The Government's proposals, published in July 1987, relating to the creation of a National Rivers Authority provide an unprecedented opportunity for building on this heritage. A greater measure of co-ordination between local data acquisition practices and national archiving activities may be anticipated; this can only bring increased benefits to a wide community of data users. The gauging station network, the associated hydrometric archives and the systems necessary to exploit them represent very substantial public investments. They, like the water itself, may be regarded as an important resource; it is incumbent upon policy makers and planners, as well as interested engineers and scientists, continually to state their requirements for maintaining such investments, for we have great historical precedents for their use.

Footnote

In addition to the material provided by Dr R.W.Herschy, the compilation of this review was rendered easier by reference to a number of articles which the interested reader may wish to pursue; W.S.Allard's paper (ref. 14) is important because of his close involvement with both the Inland Water Survey and the Surface Water Survey. It contains some anecdotal material. The British Association's Memorandum of 1933 (ref. 17) is a comprehensive review of what was hoped for from a survey and provides a good bibliography of early material. Invaluable guidance for the situation in Scotland was provided by a paper by S.C.Agnew and T.D.Macdonald presented to the Institution of Water Engineers and Scientists (Scottish Section) on 17 November 1977. Mr P.E.Holland supplied the information for Northern Ireland.

References

1. Clutterbuck, J.C. 1850. On the periodical alternations, and progressive permanent depression, of the Chalk water level under London. Proc. Inst. Civ. Engrs, 9, 151–155.
2. Annual Report 1878. Brit. Assoc. Adv. Sci. 689, 692.
3. Report of proc. 1878. Congr. Roy. Soc. Arts. 112.
4. De Rance, C.E. 1882. The water supply of England and Wales, its geology, underground circulation, surface distribution and statistics. E. Stanford.
5. Report. 1902. Salmon Fisheries Commission. 12, 49–51, 61.
6. Royal Commission on Sewage Disposal 1912. Eighth report. Cd. 6464. H.M.S.O.
7. Chapman, S.C. 1910. Gauging and recording the flow of streams. Trans. Inst. Water Engrs., vol xv, 147-184.
8. Reid, W.C. 1913. The Yield of Various Catchment Areas in Scotland. Proc. Inst. Civ. Engrs., Paper no. 4048.
9. Sandeman, E. 1913. Proc. Inst. Civ. Engrs., Paper no. 4056.
10. Kershaw, G. B. 1917. River Gauging. Colliery Guardian Co., London.
11. Hogan, M. A. 1922. Current Meters for use in River Gauging. H.M.S.O.
12. Hogan, M. A. 1925. River Gauging. H.M.S.O.
13. Water Power Resources Committee, Board of Trade 1920. Second Interim Report 1921. Final Report. Cmnd. 776. H.M.S.O.

14. Allard, W. S. 1961. British River Flow Gauging – A Jubilee Retrospect. River Boards' Assoc. Yr. Book 27–40.
15. McClean, W. N. 1927. Rainfall and Flow-off, River Garry, Inverness-shire. Trans. Inst. Water Engrs. vol XXXII, 110.
16. McClean, W. N. 1929. Stream Flow and Underground Water Records. Inst. Water Engrs.
17. Inland Water Survey in the British Isles 1933. Brit. Assoc. Adv. Sci. Reprint N.S. No. 31.
18. Inland Water Survey Committee 1936. First Annual Report 1935-36; 1937. Second Annual Report 1936–37; 1939. Third Annual Report 1937-38. H.M.S.O.
19. Inland Water Survey, Ministry of Health 1936. The Water Survey of a River System. H.M.S.O.
20. Report No. IV. Inland Water Survey 1942. Post War National Development. Inst. Civ Engrs.
21. Central Advisory Water Committee 1943. Third Report. 'River Boards' Cmnd. 6465.
22. A National Water Policy 1944. Cmnd. 6515. H.M.S.O.
23. Inland Water Survey Committee 1951. Fifth Annual Report 1950. H.M.S.O.
24. Central Advisory Water Committee 1959. Report of Sub-Committee on Information on Water Resources. H.M.S.O.
25. Central Advisory Water Committee 1959. First Report of Sub-Committee on The Growing Demand for Water. H.M.S.O.
26. Central Advisory Water Committee 1960. Second Report of Sub-Committee on The Growing Demand for Water. H.M.S.O.
27. Central Advisory Water Committee 1962. Final Report of Sub-Committee on The Growing Demand for Water. H.M.S.O.
28. Water Conservation in England and Wales 1962. Cmnd. 1693. H.M.S.O.
29. Water Resources Board 1965. Second Annual Report. H.M.S.O.
30. Hydrological Research in the United Kingdom 1965–70. N.E.R.C.
31. Water Resources Board 1971. Seventh Annual Report. H.M.S.O.
32. Interdepartmental Committee on River Survey and gauging in Scotland 1961. Report H.M.S.O.
33. Working Party on River Survey and Gauging 1963. Report of Network Sub-committee. H.M.S.O.
34. Joint Committee on River Survey and Gauging 1965. Report of Sub-committee on Data Processing. H.M.S.O.
35. Central Advisory Water Committee 1971. The future management of water in England and Wales. H.M.S.O.
36. Department of the Environment 1971. Reorganisation of water and sewage services; Government proposals and arrangements for consultation. Circ. 92/71. H.M.S.O.
37. The National Rivers Authority – the Government's proposals for a public regulatory body in a privatised water industry. July 1987. Dept. of the Environment/Ministry of Agriculture Fisheries and Food/Welsh Office.

THE McCLEAN HYDROMETRIC DATA COLLECTION

A. WERRITTY

Department of Geography, University of St Andrews

Captain W.N. McClean was one of the pioneers in the development of a systematic programme of river flow measurements in Great Britain. He commenced his work on the River Garry in the Great Glen of Scotland by installing a water level gauge at Invergarry in January 1913 and by introducing the then relatively unknown technique of current metering to rate the cross-section. He maintained a continuous record of flow on the Garry until the end of 1915 when it became impossible to sustain the work on account of the First World War.

The results of this pioneering gauging of river flow were published as a paper entitled 'Rainfall and Flow-off, River Garry, Inverness-shire'[1]. In this paper the field installations, instruments and methods of data reduction are all described in considerable detail. These were to become McClean's standard methods of operation for the next twenty years. At the initial site on the Garry a water-level gauge was installed very close to the Lodge of Invergarry House (Plate 1). Current metering was generally undertaken at a 76 feet* wide cross-section within a 200 yard long relatively uniform pool in depths up to 16 feet and velocities up to 8 feet per second. The velocity readings were obtained by using an Amsler propeller-type current meter manually operated from a bosun's chair suspended from a cableway (Plate 2). A stage-discharge relation was established in a tabular form between the lowest – 192 cubic feet per second (cusecs) – and highest – 4868 cusecs – measured flows in December 1912 and January, February and June 1913. The results of the three-year record were reported graphically (Fig. 18) as mean daily flows (expressed as inches of runoff – to permit direct comparisons with catchment rainfall). In addition to the gauging station McClean also installed 8 daily raingauges (supplementing the 5 gauges operated by the British Rainfall Organisation) which enabled him to produce detailed measurements of the catchment water balance for selected short periods – incorporating one, or several, hydrological events – and for each of the water years between 1913 and 1915.

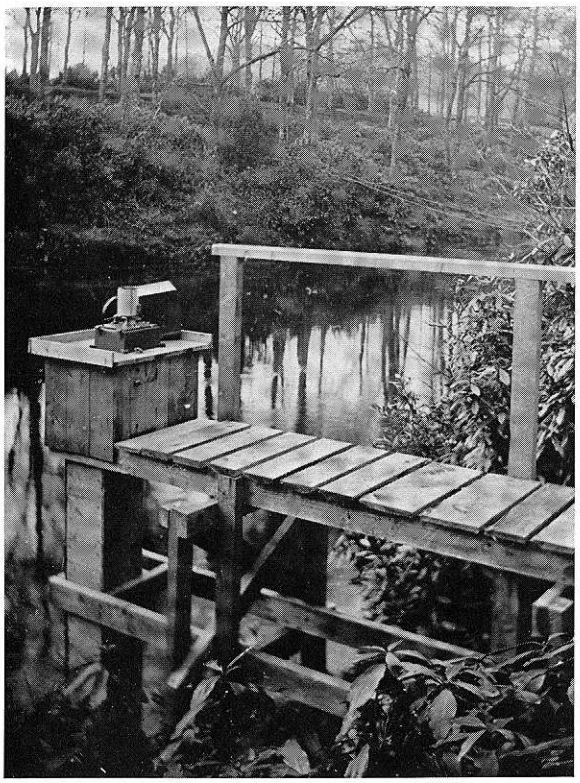


Plate 1. Water level recorder installed at Invergarry Lodge, Invergarry – 1913.

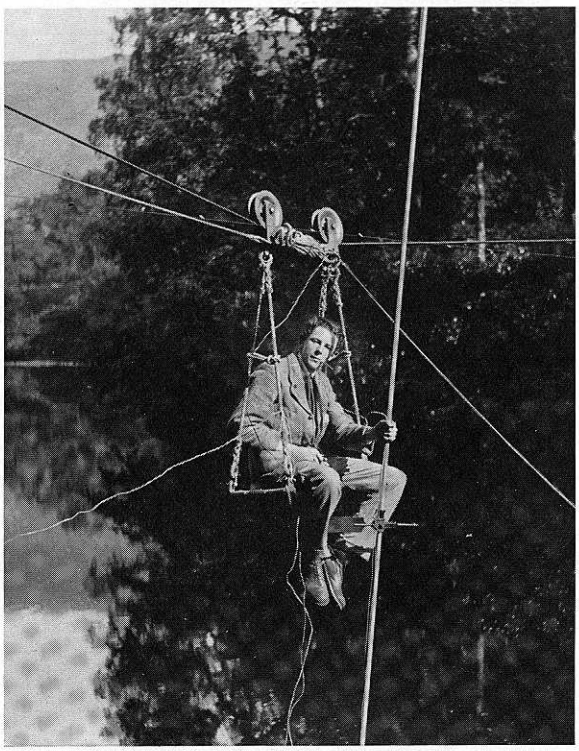


Plate 2. Current metering from a bosun's chair on the River Garry – 1913.

* Because of the historical nature of this article imperial units have been adopted throughout.

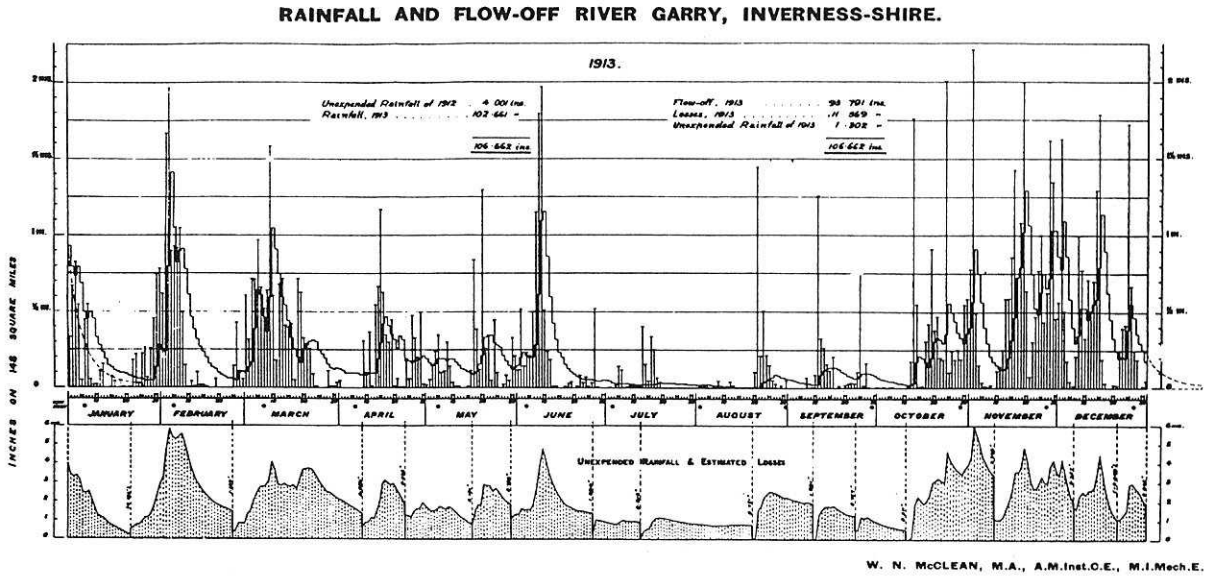


Figure 18. Rainfall and 'Flow-off' for the River Garry.

In 1929 McClean returned to the Great Glen with an ambitious programme to gauge all the major rivers within the River Ness basin. This constituted the first major project for 'River Flow Records' a private organisation established by McClean to provide a standardised framework for measuring and reporting river flows. By 1931 water level gauges had been installed on the Rivers Garry, Moriston, Ness and Foyers and on Lochs Ness, Oich, Garry and Quoich (Fig. 19[2]). Raingauges were also added to supplement the British Rainfall Organisation's network. By this time some of McClean's procedures had been modified since the initial work on the River Garry. Under low and medium discharge conditions the hazardous bosun's chair arrangement for flow gauging was replaced by a cableway controlling the position of twin punts from which current metering was undertaken (Plate 3). At some sites an alternative procedure involving a suspended current meter with sinker weight was employed[3]. McClean did not

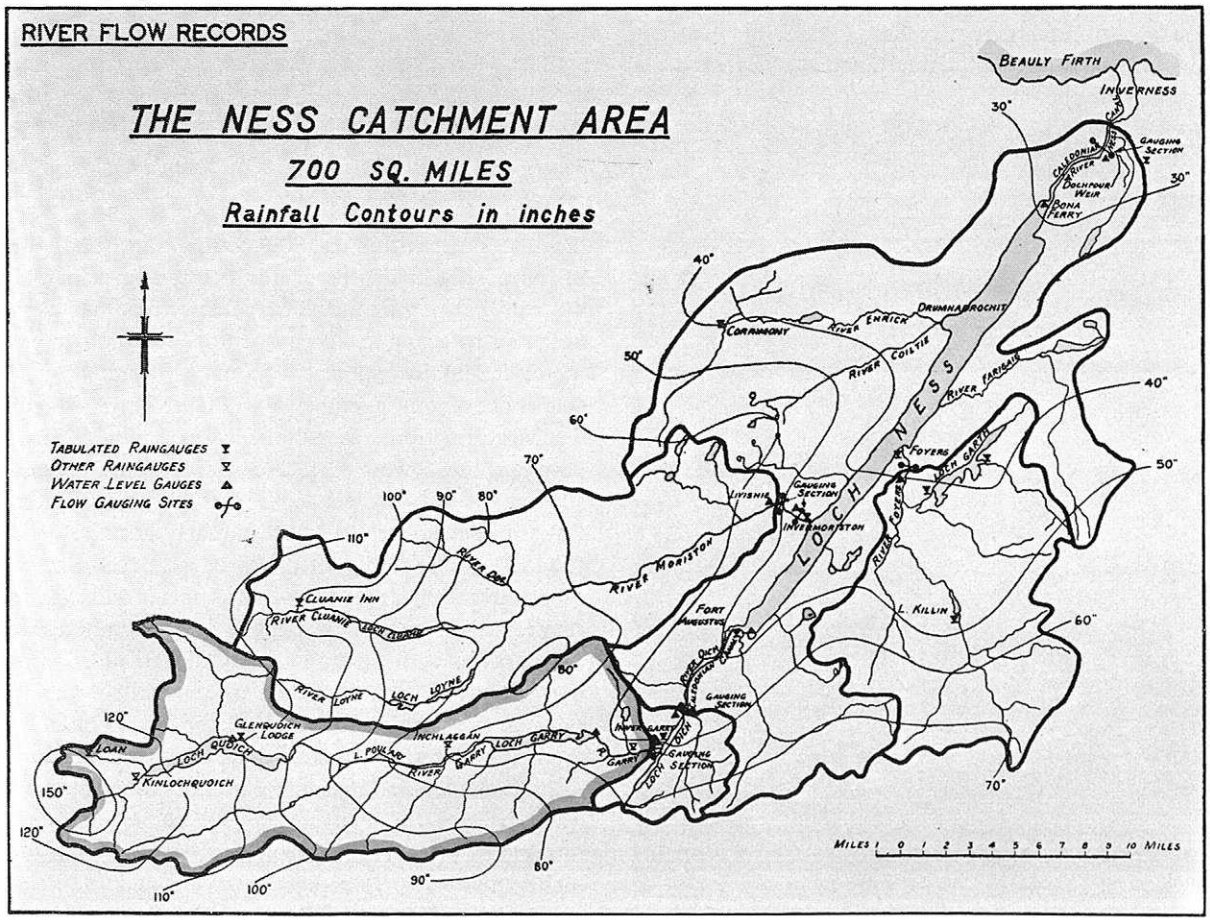


Figure 19. Capt. W. N. McClean's hydrometric network in the River Ness catchment – 1931.

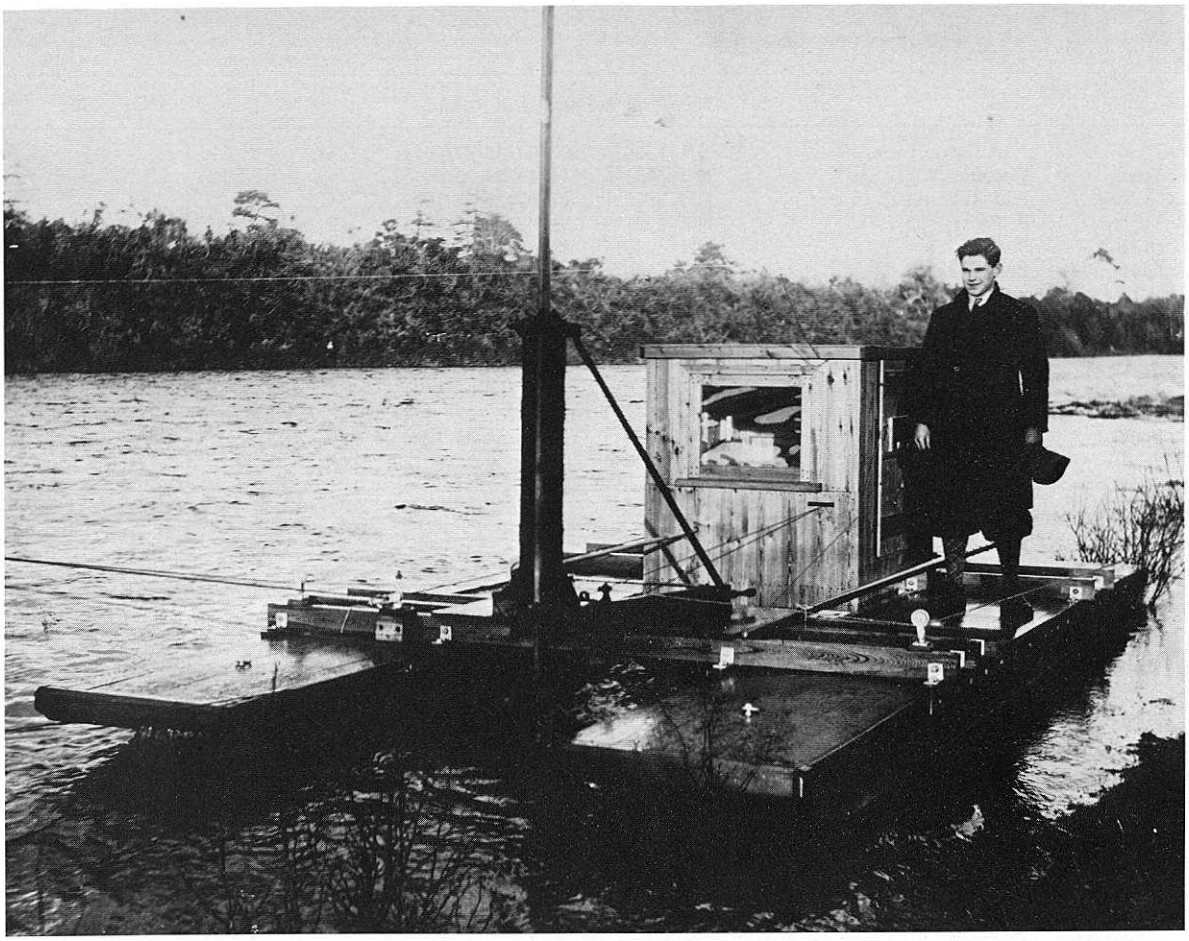


Plate 3. Twin-punt current metering platform in use on the River Ness – 1930.

confine his gauging activities to Scotland and this latter method was subsequently deployed to good effect on the River Dee in North Wales, during 1937/38 and became standard practice throughout the United Kingdom[4].

In 1929, McClean initiated a programme of river flow measurement on the (Scottish) River Dee by the installation of a water level gauge at Cairnton, near Banchory. McClean had hoped to develop this into a series of four gauging stations between Balmoral and Aberdeen. In this he was to fail, and the gauging station at Cairnton – later moved just upstream to Woodend – remained the only gauge on the Dee until 1972. McClean further extended his surface water survey to include gauging stations on the River Spey at Laggan Bridge in 1935 and at Aberlour in 1938. Much of the hydrometeorological network installed by McClean in the early 1930s was to be maintained by him until the late 1940s. By then many of the original gauging stations had either been discontinued or had been taken over by other public authorities associated with the Inland Water Survey. It is noteworthy that two sites (River Dee at Woodend and River Ness at Ness-Side) have unbroken records at or near their original location continuously since 1929. The gauge on the River Spey at Aberlour also has a very long record extending from 1938 up to 1974.

The primary records compiled by 'River Flow Records' are now held by St Andrews University under the custody of the University Librarian with access supervised by Dr A. Werritty of the Geography Department. These records comprise daily rainfall postcards and weekly charts of water level at selected sites including loch levels as well as river gauging stations (Tables 7 and 8). The reduced data are in the form of stage/discharge conversions via rating tables and lists of peak flows and low flows for selected stations. From this database, summary results were published by 'River Flow Records' for each catchment in a tabular format, reporting both daily rainfall and runoff on a quarterly basis[5]. These were later converted into annual reports[6] and ultimately into a series of fifteen year records[7].

In addition to establishing and maintaining 'River Flow Records', McClean was also a strong advocate of a national water survey in which central government would influence and coordinate the measurement of river flows throughout the United Kingdom. In 1933 McClean served as the Secretary of a Committee of the British Association which concluded that a systematic survey of the water resources of Great Britain was urgently required[8]. In 1934, following a severe drought, a joint approach was made by the British Association and the Institution of Civil Engineers urging the Govern-

TABLE 7 McCLEAN: WATER LEVEL RECORDS

Catchment	Station	Nat. Grid Ref.	Dates of Record			
R. Ness	Ness Castle Farm	NH 639410	02/09/30-27/09/41	(M)		
R. Ness	Dochfour Weir	NH 613396	14/10/29-20/04/48			
Loch Ness	Fort Augustus (loch level)	NH 382091	07/09/29-12/10/31	(M)		
R. Foyers	R. Foyers (Foyers)	NH 499199	31/07/30-25/11/43	(P, M)		
Loch Oich	Pier (loch level)	NH 323015	19/06/29-10/09/31	(M)		
R. Garry	Invergarry	NH 314011	01/01/13-31/12/15	(P, M)	04/09/29-05/01/41	(P, M)
Loch Garry	loch level	NH 275025	21/10/31-10/02/37	(P, M)		
Loch Quoich	Glenquoich (loch level)	NH 025031	17/07/33-03/01/43	(M)		
R. Moriston	Invermoriston	NH 412172	23/03/30-27/12/42	(P)		
Loch Arkaig	loch level	*	11/09/33-10/08/40	(P, M)		
R. Lochy	Gairlochy	NN 176842	06/01/36-01/01/43	(M)		
R. Spey	Laggan Bridge	NN 615942	21/02/35-27/11/35	(P, M)	01/08/39-01/11/39	(P, M)
R. Spey	Aberlour	NJ 278439	21/08/38-06/12/43	(P)		
R. Dee	Cairnton	NO 632960	01/10/29-30/09/49	(R)		

(P) : data available on punched cards/magnetic tape
(M) : weekly charts on microfilm
(R) : data only available in reduced form of tabulations of water level every 3 hours
* precise location uncertain

TABLE 8 McCLEAN: DAILY RAINFALL RECORDS

Catchment	Station	Nat. Grid Ref.	Dates of Record	
R. Ness	Inverness (Culduthal Reservoir)	NH 665412	01/01/30-31/12/52	
R. Foyers	Foyers Catchment (4 gauges)	various	01/09/29-31/12/41	
R. Oich	Fort Augustus (Monastery)	NH 381091	01/02/29-20/09/47	
Loch Oich	Loch Oich (Portmacdonell)	NH 323016	23/09/29-12/08/46	
R. Garry	Invergarry (+ 12 other gauges)	NH 308011	01/01/13-31/12/15	
R. Garry	Glenquoich Lodge	NH 030030	01/09/29-07/07/45	(P)
R. Moriston	Invermoriston	NH 412172	01/09/29-31/12/45	(P)
R. Moriston	Cluanie Inn	NH 076118	01/09/29-31/12/45	
R. Moriston	Cluanie Lodge	NH 098109	31/08/30-13/01/40	
R. Enrick	Corrimony	NH 376303	25/01/31-25/12/37	
Loch Arkaig	R. Arkaig (Achnacarry)	NN 179879	27/07/30-05/07/47	
Loch Arkaig	Glen Dessary	NM 968927	03/08/30-05/01/46	(P)
R. Lochy	Gairlochy	NN 177842	02/01/38-05/10/40	
R. Shiel	Glen Shiel	*	01/03/30-28/03/52	
R. Spey	Lochaber district (7 gauges)	various	12/37- 03/47	
R. Dee	Dee catchment (10 gauges)	various	01/10/32-31/08/49	

(P) : data available on punched cards/magnetic tape
* precise location uncertain

ment to carry out a national water survey. As a result the Inland Water Survey Committee was appointed in January 1935, the date at which the national surface water archive can be said to have commenced[9] (see preceeding article). McClean's contribution to the national water survey was explicitly recognised in the Inland Water Survey's Second Annual Report[10] and by the inclusion of data from the Ness basin and the Rivers Dee and Spey in the Surface Water Year-Book for 1935-36[11] and 1936-37[12].

McClean was also very active in promoting the development of hydro-electric power in the Scottish Highlands. The development of the programme of river and rainfall gauging in the Ness basin from 1929 onwards arose directly from McClean giving evidence on behalf of the West Highland Water Power Scheme at a Parliamentary inquiry in 1929. Although this scheme was rejected, the database generated by McClean for the Rivers Garry, Moriston, Foyers and Spey was to prove of great value in the planning and development of subsequent hydro-electric schemes in these catchments.

In addition to establishing the overall relationship between rainfall and runoff in the Scottish Highlands, McClean was also concerned to identify hydrological extremes as represented by both floods and droughts. An interest in identifying the severity and frequency of periods of substantial rainfall defiency formed a major aspect of McClean's work on water resources in Scotland[13]. However, in terms of river gauging the floods were of greater significance. During the period of detailed flow measurements (1930–1945) three significant floods were

recorded in the catchments monitored by McClean. The first was a flow of 10,500 cusecs on the River Garry (15 January 1932). This was succeeded by a more severe flood in the Great Glen (20 December 1936) which produced a peak flow of 16,500 cusecs on the River Moriston. The River Dee, however, produced the most extreme runoff conditions recorded at the flow measurement stations maintained by McClean when a flow of 40,000 cusecs was recorded at Woodend on 24 January 1937 (Fig. 20). This flow, with an estimated return period of at least 200 years, remains the largest gauged flow at that site. McClean notes that a comparable flood also occurred on the Dee on 4 December 1920. This interest in hydrological extremes is also evident in McClean's membership of the 'Committee on Floods in relation to Reservoir Practice' which reported to the Institution of Civil Engineers in 1933[14]. Two of the most extreme floods recorded in Table 1 of that report were based on McClean's work in the Scottish Highlands and include his estimate of a flow of 60,000 cusecs on the Ness in January 1849.

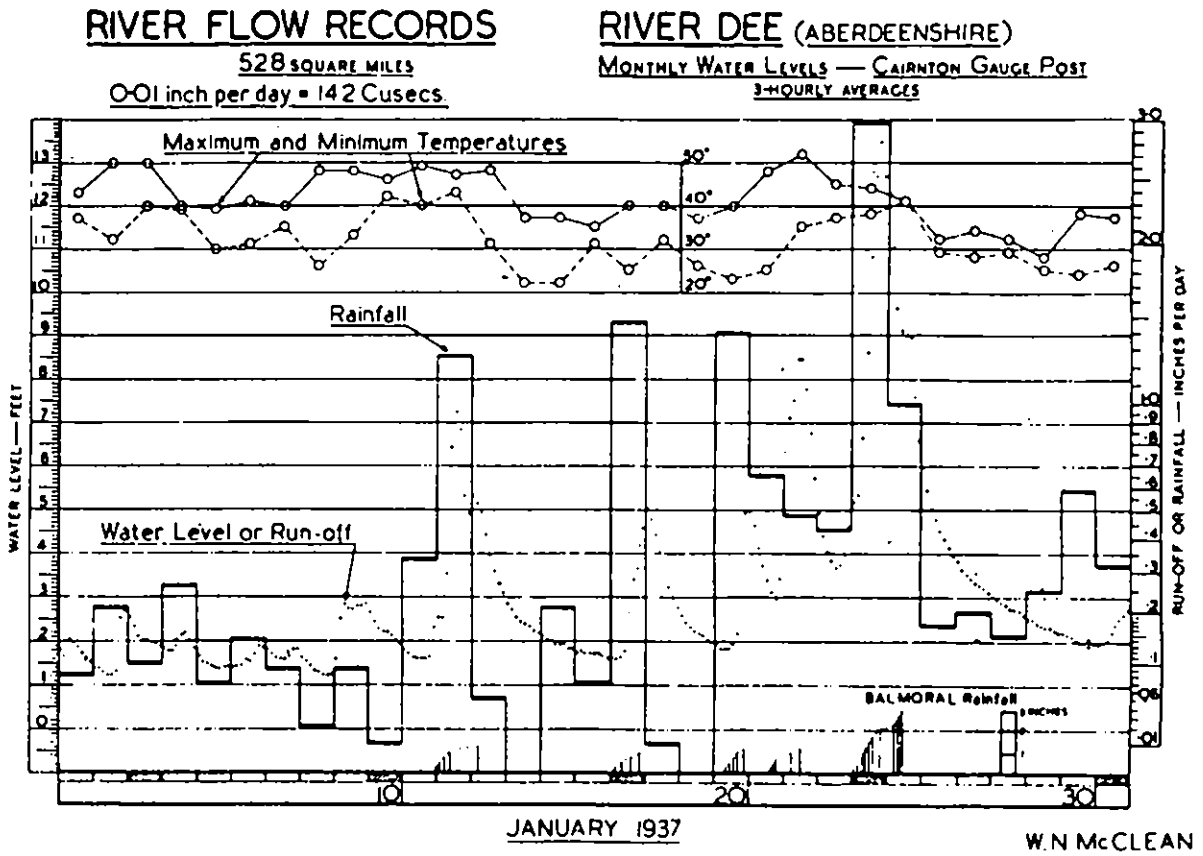


Figure 20. Hydrometric data summary for January 1937 - River Dee at Cairnton.

REFERENCES

1. McClean, W.N. 1927. Rainfall and Flow-off, River Garry, Inverness-shire. Trans. Institution of Water Engineers. 32.
2. McClean, W.N. 1933. Practical riverflow measurement and its place in Inland Water Survey, as exemplified by the Ness (Scotland) basin. Trans. Institution of Water Engineers, 39, 233-276.
3. McClean, W.N. 1934. Flow of the River Dee. Engineering, Sept. 1934.
4. McClean, W.N. 1939. Flow Gauging on the River Dee - Demonstration at Erbistock near Chester. Water and Water Engineering, July 1939.
5. McClean, W.N. 1931. Rivers Garry and Moriston (Inverness-shire). Quarterly records from July 1929 to March 1931. River Flow Records*.
6. McClean, W.N. 1937. Rivers Garry, Moriston

and Ness (Inverness-shire). Graphical records of water level, flow, and rainfall, from September 1929 to December 1935. River Flow Records*.
7. McClean, W.N. 1945. River Garry, monthly and 12-monthly summary of rain and runoff for 15 years. River Flow Records*.
8. British Association 1933. Report of Committee on Inland Water Survey. British Association Reprints (N.S. No. 31), 69 pages.
9. Ministry of Health and Scottish Office 1936. First Annual Report 1935-36. Inland Water Survey Committee.
10. Ministry of Health and Scottish Office 1937. Second Annual Report 1936-37. Inland Water Survey Committee.
11. Ministry of Health and Scottish Office 1938. Surface Water Yearbook for 1935-36 H.M.S.O.
12. Ministry of Health and Scottish Office 1939. Surface Water Yearbook for 1936-37 H.M.S.O.
13. McClean, W.N. 1925. Analysis of Scottish rainfall records. Trans. Institution of Water Engineers. 30.
14. Institution of Civil Engineers 1933. Interim Report of the Committee on Floods in Relation to Reservoir Practice. 42 pages.

* River Flow Records was published privately by McClean. Copies of these papers can be obtained from the Geography Department, University of St Andrews.

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 continuously by pen and chart, or digitally on punched-tape or solid-state logger, generally at regular (normally 15 minute) intervals. This stage data is normally collected routinely, typically at weekly or monthly intervals, and taken to a regional centre for processing. At some gauging stations provision is made for the routine transmission of river levels directly to the processing centre, by telephone line or, less commonly, by radio; on occasions, satellites have been used to receive and retransmit the radio signal. Often, 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 single depth, or 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.

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 surface water 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 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.

Scope of Flow Data Tabulations

River flow data are presented in two parts. In the first, daily mean gauged flows are tabulated for 50 gauging stations; daily naturalised flows (see p. 56) are also tabulated for the River Thames at Kingston. Monthly flow data for a further 160 gauging stations are given in the second part. The featured gauging stations have been selected to give a broad geographical coverage and to typify a wide range of catchment types found throughout the United Kingdom. A map (Fig. 21) is provided on page 60 to assist in locating the gauging stations featured in this section.

For each gauging station, basic reference information is given together with comparative average, and extreme river flow and rainfall figures based upon the archived record.

Explanatory notes precede the two sets of tables and will assist in the interpretation of particular items. The notes relating to the daily flow tables are given below; those relating to the monthly data are given on page 113.

Part (i) – the daily mean flow tabulations

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 surface water 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 continguous river catchments having topographical similarity with separate tidal outlets. In Britain they are numbered from 1 to 97 in clockwise order around the coastline 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 directly on the coast.

The numbers and boundaries of the United Kingdom hydrometric areas are shown in the frontispiece.

The practice followed in the earlier Surface Water: United Kingdom publications of using the fourth digit to denote certain characteristics of a gauging station, or its flow record, has been discontinued. Normally this function is now performed by the station description (see below).

The fourth, fifth and sixth digits comprise the number, usually allocated chronologically, of the gauging station within the hydrometric area.

Where the leading digit, or digits, are zero they may be omitted giving rise to apparent four or five-digit reference numbers.

Measuring Authority

An abbreviation referencing the organisation responsible for the operation of the gauging station. A list of measuring authority codes together with the corresponding names and addressses for all organisations currently contributing data to the surface water archive appears on pages 196 and 197.

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 the identification clear.)

Catchment Area

The surface catchment area (square kilometres), in the horizontal plane, draining to the gauging station in square kilometres. There are a few gauging stations where, because of geological considerations, the groundwater catchment area differs appreciably from the surface water catchment area and, in consequence, the baseflow, whether augmented or diminished, may cause the runoff values to appear anomalous.

First Year

The year in which the station started producing daily mean flow data, usually the first year for which data are held on the surface water archive. Earlier data, often of a sporadic nature or of poorer quality, may occasionally be available from the measuring authorities or other sources.

Level of Station

The level of the station is, generally, the level of the gauge zero in metres 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.

Maximum Altitude

The level to the nearest metre of the highest point in the catchment area.

Table of daily mean gauged (or naturalised) discharges

The mean flow in cubic metres per second (abbreviated to m^3s^{-1} and sometimes also referred to as 'cumecs') in a water-day, normally 0900 am to 0900 am. The naturalised discharge is the gauged discharge adjusted to take account of net abstractions and discharges upstream of the gauging station.

Peak Flow: The highest flow in cubic metres per second for each month. The day of peak generally refers to the water-day but the calendar day is also used, particularly in Scotland. Normally the peak flow corresponds to the highest fifteen minute flow where water levels are recorded digitally, or the highest instantaneous flow associated with maximum stage where analogue recorders are used.

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

$$\text{Runoff in mm} = \frac{\text{Average Flow in Cumecs} \times 86.4 \times n}{\text{Catchment Area (km}^2\text{)}}$$

where n is the number of days in the month. The runoff total is rounded to the nearest millimetre.

Runoff is computed on the basis of naturalised flows (see 'Factors affecting the flow regime') for the minority of catchments where daily, or monthly, naturalised flows are available.

Rainfall: The rainfall over the catchment in millimetres for each month. It is derived by first obtaining the long-period (1941-70) average annual

rainfall for each catchment. Then, for each of a selected number of raingauges chosen to represent the catchment, the monthly rainfall is expressed as a percentage of its annual average rainfall. The percentage values of rainfall for each raingauge are summed and their mean obtained to give a catchment percentage value for the month, which is then converted to monthly mean rainfall. Accuracy therefore 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 small mountainous catchments, raingauges are few and their siting and exposure is not ideal, great precision in the areal rainfall estimates cannot be expected.

Statistics of monthly data for previous record

Only complete monthly records are used in the derivation of the average, low and high values of river flow, runoff and rainfall. The rainfall and runoff statistics are normally directly comparable but full equivalence will not obtain where the pattern of missing data differs between the archived rainfall and runoff data sets.

Where applicable, a guide to the amount of missing data is given following the section heading.

Summary statistics

Current year flow statistics are tabulated alongside the corresponding values for the previous record. Where appropriate, the current year figures are expressed as a percentage of the preceding average.

Mean Flow: The average of all available daily mean flows during the term indicated.

Lowest Daily Mean: The value and date of occurrence of the lowest mean flow in cubic metres per second in a water-day during the term indicated. In a record in which the value recurs, the date is that of the last occasion.

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 reduce the accuracy of computed flows.

The reliability of both the lowest daily mean flow and the 95 percentile flows (see below) as representative measures of low flow must be considered carefully and the values used with caution in view of the increasing proportional variability between the natural flow and the artificial influences, such as abstractions, discharges, and storage changes as the river flow diminishes.

Peak: The peak flow in cubic metres per second during the term indicated. The date of occurrence, normally the water-day, is also indicated. Generally, the peak flows are derived from the record of monthly instantaneous maximum flows stored on the surface water archive. As a result of particular flow-measurement difficulties in the flood range, this peak flow series is often incomplete. Consequently, in some cases, the peak flow from the previous period of record has been abstracted from Volume IV of the Flood Studies Report[1]. Reference to this report should be made to check for historical flood events which may exceed the peak falling within the gauged flow record.

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 ten days, or less, missing on the surface water archive.

50 Percentile: The flow in cubic metres per second which was equalled or exceeded for 50 per cent of the specified term – the median value. The same conditions for completeness of the annual records apply as for the 10 percentile flow.

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 the assessment of river water quality consent conditions. The same conditions for completeness of the annual records apply as for the 10 percentile flow.

Factors affecting flow regime

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 abbreviated descriptions. In Part (ii) – the monthly flow data – each description is shortened to a code letter. An explanation of the abbreviated descriptions and the code letters follows. 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.

[1] Flood Studies Report 1975. Natural Environment Research Council (5 vols.)

CODE	EXPLANATION	ABBREVIATED DESCRIPTION
N	Natural, i.e. there are no abstractions and discharges or the variation due to them is so limited that the gauged flow is within 10% of the natural flow at, or in excess of, the 95 percentile flow.	Natural within 10% at the 95 percentile flow.
	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.	Reservoirs in catchment.
	Regulated river. Under certain flow conditions the river will be augmented from surface water and/or groundwater storage upstream of the gauging station.	Augmentation from surface water and/or groundwater.
	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.	Abstraction for public water supply.
	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.	Flows influenced by groundwater abstraction and/or recharge.
	Effluent return. Outflows from sewage treatment works will augment the river flow if the effluents originate from outside the catchment.	Augmentation from effluent returns.
	Industrial and agricultural abstractions. Direct industrial and agricultural abstractions from surface water and from groundwater may reduce the natural river flow.	Flow reduced by industrial and/or agricultural abstraction.
	Hydro-electric power. The river flow is regulated to suit the need for power generation.	Regulation for HEP.

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 56), the record of individual abstractions, discharges and changes in storage as indicated in the code above is not held centrally.

Station description

A concise description of the gauging station. When appropriate, details of the station history are included together with any factors limiting the availability or accuracy of the associated river flow record.

Comment

A summary of any important factors influencing the accuracy of the current year's flow data specifically; for instance, the reconstruction of a gauging station or the use of extrapolated stage-discharge relations during periods of very low or very high flows.

STATIONS FOR WHICH DAILY OR MONTHLY DATA ARE GIVEN IN THE RIVER FLOW SECTION

continued on p. 61

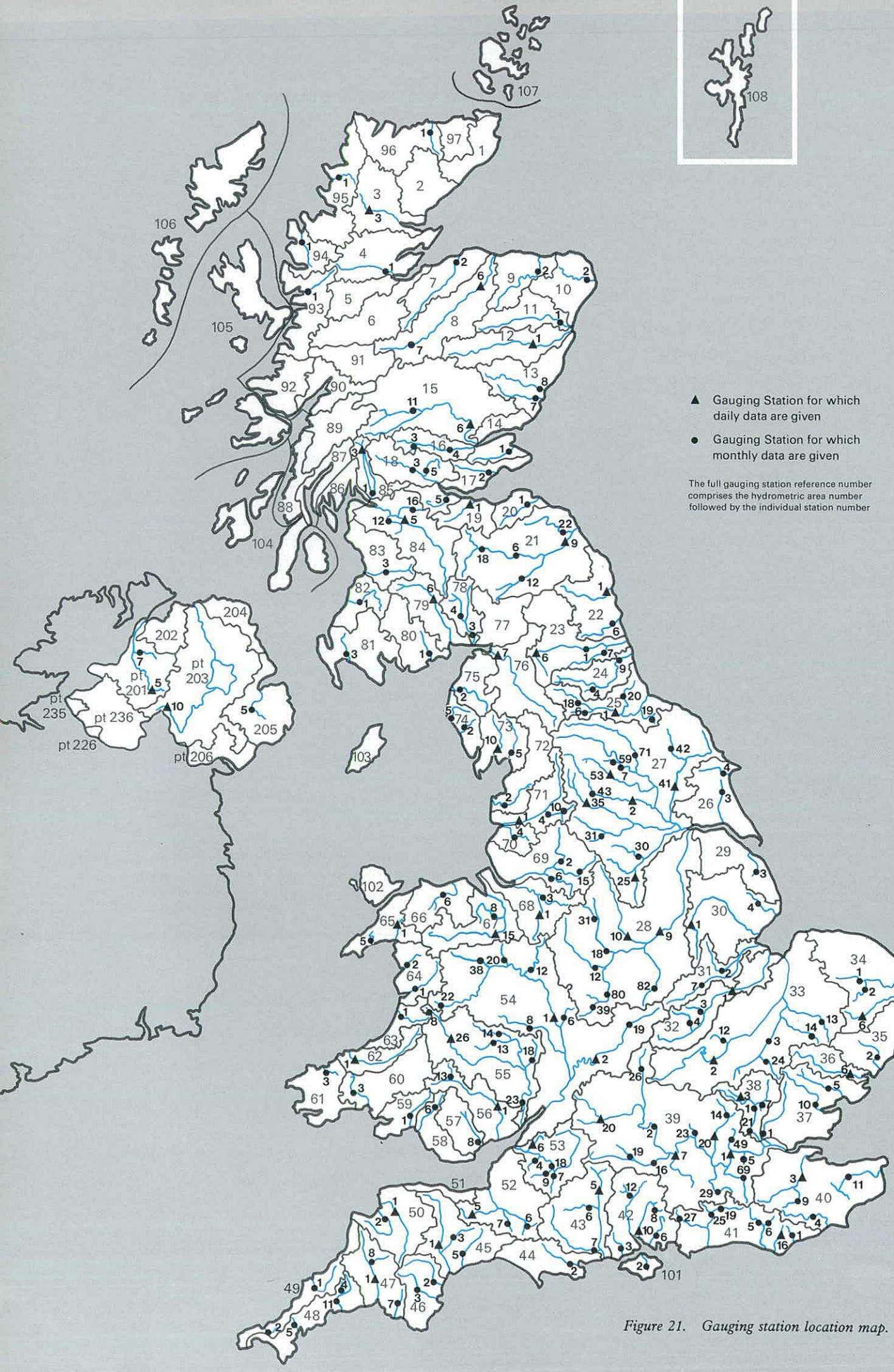


Figure 21. Gauging station location map.

A 'D' indicates that the featured station is in the daily flow section

003003 Oykel at Easter Turnaig 1985

Measuring authority HRPB
First year 1977

Grid reference NC 403001
Level stn (m OD) 15 62

Catchment area (sq km) 330 7
Max alt (m OD) 998

Daily mean gauged discharges (cubic metres per second)

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	13 690	80 280	3 870	62 430	20 050	1 767	2 495	6 317	14 930	19 760	9 340	63 190
2	6 599	41 090	3 152	52 080	9 635	1 444	2 010	26 070	15 810	14 710	6 277	29 180
3	4 751	23 670	2 976	30 630	5 987	1 231	6 923	22 690	34 890	11 820	8 034	60 570
4	3 791	21 670	8 553	15 680	4 500	1 217	3 677	22 280	13 790	33 780	76 950	34 180
5	3 944	11 380	12 670	13 270	3 541	1 976	40 540	23 560	18 420	29 900	41 840	26 790
6	4 546	8 369	7 116	10 500	3 050	1 916	16 840	22 800	18 160	22 410	63 920	22 210
7	4 430	5 314	6 836	9 510	2 732	1 770	6 715	12 100	9 896	12 760	33 270	9 476
8	5 012	3 840	5 003	30 700	2 379	1 473	6 703	9 836	8 937	25 510	40 110	5 490
9	4 270	6 524	12 870	17 850	4 290	1 595	9 552	5 970	42 840	46 340	37 180	3 522
10	3 402	10 010	15 310	8 766	5 555	1 734	45 810	3 680	24 390	29 380	12 070	4 191
11	2 746	8 758	7 805	6 888	3 331	2 453	24 530	2 984	9 951	24 680	7 644	7 821
12	4 854	5 619	6 654	5 817	2 385	24 080	13 180	16 300	7 481	11 010	5 898	18 710
13	5 444	4 035	7 906	7 034	1 930	9 517	7 116	17 210	11 790	7 495	4 932	23 320
14	4 312	2 648	9 604	14 040	1 640	5 995	4 325	19 700	42 010	6 245	26 510	36 890
15	3 371	2 141	8 173	21 160	1 600	5 097	3 431	11 540	43 630	5 659	23 420	44 100
16	4 357	2 043	6 864	26 180	1 451	3 450	3 738	40 170	26 210	4 467	34 260	72 000
17	9 770	2 609	6 147	11 240	2 418	2 788	5 472	8 790	20 010	4 124	12 560	60 820
18	3 657	4 152	5 430	9 758	4 708	5 406	12 570	4 816	10 880	4 074	9 847	47 150
19	2 876	15 350	4 312	25 800	3 726	3 611	15 600	6 468	10 250	3 313	6 163	41 920
20	3 804	7 135	4 493	21 070	2 745	2 579	10 440	30 910	26 260	2 832	4 425	45 160
21	3 574	5 357	4 855	9 988	2 222	1 990	12 040	26 260	11 630	2 545	3 594	39 140
22	2 671	9 621	7 494	6 687	2 001	1 942	6 596	22 820	8 666	2 336	3 376	14 760
23	3 018	36 090	17 150	4 848	1 939	2 221	4 043	41 910	19 640	2 088	4 123	8 380
24	4 173	52 620	29 900	6 133	12 900	1 864	3 159	82 680	16 020	1 935	5 195	9 170
25	8 621	16 210	22 440	5 168	10 210	1 706	16 540	36 580	11 100	1 951	4 876	8 935
26	10 650	8 747	17 330	13 360	10 860	4 024	11 750	21 270	9 021	1 868	3 958	4 606
27	9 916	6 029	13 790	11 640	5 856	15 240	16 600	63 460	53 060	1 812	3 321	3 800
28	9 411	4 648	12 560	12 940	6 421	8 493	7 350	20 460	14 770	1 784	2 760	3 582
29	55 110		7 937	16 350	4 054	4 161	11 130	8 865	7 713	1 730	4 810	6 798
30	128 000		7 376	23 170	2 822	2 692	5 104	43 450	23 600	2 819	29 890	12 350
31	85 230		32 540		2 196		3 526	18 300		3 446		15 640
Average	13 550	14 500	10 290	17 020	4 811	4 181	10 950	22 590	19 530	11 120	17 690	25 290
Lowest	2 671	2 043	2 976	4 848	1 451	1 217	2 010	2 984	7 481	1 730	2 760	3 522
Highest	128 000	80 280	32 540	62 430	20 050	24 080	45 810	82 680	53 060	46 340	76 950	72 000
Peak flow	197 100	142 100	45 000	121 600	27 750	63 270	75 580	156 500	99 880	82 430	131 300	169 900
Day of peak	31	2	31	2	1	12	5	16	27	9	6	16
Monthly total (million cu m)	36 29	35 07	27 57	44 12	12 89	10 84	29 33	60 50	50 61	29 77	45 84	67 72
Runoff (mm)	110	106	83	133	39	33	89	183	153	90	139	205
Rainfall (mm)	124	63	128	151	59	86	133	249	189	110	173	241

Statistics of monthly data for previous record (Nov 1977 to Dec 1984)

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Mean flows	Avg	28 390	16 740	20 820	9 609	5 909	6 927	7 177	8 248	24 020	29 000	30 400	23 860
	Low	16 030	9 324	6 649	5 445	1 067	0 752	2 853	2 332	17 680	7 328	14 420	8 245
	(year)	1980	1982	1980	1980	1980	1987	1978	1984	1984	1979	1983	1977
	High	43 980	25 370	40 740	17 720	14 380	14 140	15 690	17 230	31 870	41 100	49 380	38 210
	(year)	1983	1984	1983	1979	1982	1980	1979	1982	1981	1980	1981	1980
Runoff	Avg	230	124	169	75	48	54	58	67	188	235	238	193
	Low	130	68	54	43	9	6	23	19	139	59	113	67
	High	356	197	330	139	116	111	127	140	250	333	387	309
Rainfall	Avg	259	105	187	86	73	109	97	116	248	276	288	218
	Low	150	66	76	50	29	44	60	52	209	96	92	82
	High	408	162	308	129	154	176	169	244	326	401	458	361

Summary statistics

	For 1985		For record preceding 1985		1985 As % of pre 1985
Mean flow (m^3s^{-1})	14 290		17 600		81
Lowest yearly mean			15 020	1984	
Highest yearly mean			20 250	1981	
Lowest monthly mean	4 181	Jun	0 752	Jun 1982	
Highest monthly mean	25 290	Dec	49 380	Nov 1981	
Lowest daily mean	1 217	4 Jun	0 353	26 Jun 1982	
Highest daily mean	128 000	30 Jan	404 800	29 Jan 1982	
Peak	197 100	31 Jan	847 500	5 Oct 1978	
10 %ile	36 090		41 200		88
50 %ile	8 269		9 225		90
95 %ile	1 930		0 957		202
Annual total (million cu m)	450 60		555 40		81
Annual runoff (mm)	1363		1680		81
Annual rainfall (mm)	1706		2062		83
(1941-70 rainfall average (mm)			1967)		

Factors affecting flow regime

- Natural to within 10% at 95 percentile flow

Station description
Velocity-area station. Flow contained under cableway up to 3 8 m

008006 Spey at Boat o Brig 1985

Measuring authority: NERPB
First year 1952

Grid reference: NJ 318518
Level stn (m OD) 43 12

Catchment area (sq km) 2861 2
Max alt (m OD) 1309

Daily mean gauged discharges (cubic metres per second)

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	64 870	207 600	44 370	141 900	72 900	46 140	55 970	44 650	362 400	74 530	37 830	358 300
2	61 670	214 200	40 520	187 400	62 590	42 540	49 960	46 380	179 600	71 040	38 770	268 000
3	59 340	148 600	37 680	176 400	52 820	39 450	46 220	47 230	170 300	70 320	33 450	309 900
4	67 190	195 500	42 350	131 600	47 390	37 030	43 330	44 420	136 400	94 640	34 620	231 400
5	85 400	128 200	43 710	121 800	43 490	36 100	56 290	85 640	156 200	148 100	108 000	181 700
6	89 990	94 410	41 350	115 700	40 380	36 010	99 100	106 900	113 700	110 800	79 500	156 300
7	88 230	74 200	51 440	100 200	38 990	34 770	65 890	82 770	89 460	107 800	92 060	106 900
8	68 670	62 200	43 450	102 700	39 090	33 460	54 550	64 120	79 230	80 290	103 200	85 830
9	65 940	52 650	59 810	109 400	48 120	33 870	54 090	48 730	88 890	68 970	227 200	74 400
10	57 420	47 030	96 630	82 460	86 990	42 790	47 480	47 380	78 790	63 020	112 100	67 420
11	50 610	43 530	67 350	69 630	61 920	42 680	43 400	50 790	66 780	57 710	77 380	76 760
12	41 400	38 220	52 660	62 630	47 480	141 100	44 250	90 500	62 120	53 040	63 240	137 900
13	39 960	35 450	51 690	58 790	42 970	102 700	46 850	57 820	61 490	48 630	54 780	118 000
14	40 680	36 230	45 380	91 830	43 240	79 440	40 770	55 020	58 340	45 460	85 720	88 230
15	39 970	33 600	42 550	76 210	45 590	66 430	39 030	76 450	74 670	43 150	129 600	86 200
16	38 840	33 510	40 400	76 360	46 150	55 410	37 220	140 300	74 350	41 410	93 930	88 280
17	38 970	33 360	38 700	70 940	48 060	46 240	36 580	113 500	78 460	40 450	74 370	144 200
18	38 080	33 580	36 110	61 800	66 640	45 870	35 100	75 590	65 450	39 390	86 270	118 600
19	35 580	34 630	34 990	76 020	76 360	51 500	34 990	78 170	69 970	37 890	71 640	89 090
20	34 830	33 740	33 920	89 210	59 940	48 820	33 960	68 790	64 590	36 110	57 420	104 100
21	34 500	32 930	33 890	82 800	49 980	40 680	31 680	63 610	106 300	34 730	53 750	175 600
22	40 390	34 110	33 690	70 050	46 120	50 630	30 470	56 640	110 700	33 780	66 650	160 600
23	30 670	103 000	41 960	61 360	49 350	49 960	30 080	52 100	176 300	33 400	85 100	116 700
24	33 100	140 700	68 710	54 770	78 060	67 260	31 080	93 360	113 500	32 690	99 010	101 100
25	30 360	85 730	63 010	53 160	88 290	145 800	37 610	162 300	91 010	31 880	85 670	95 690
26	32 170	60 220	69 340	50 510	172 000	123 800	39 400	140 400	83 450	31 470	70 980	77 150
27	32 790	50 970	64 740	52 240	91 290	136 000	118 600	170 700	73 530	30 680	60 020	62 820
28	38 020	46 380	55 080	49 770	126 400	92 270	78 060	124 600	66 040	31 380	54 320	54 280
29	49 660		48 950	57 630	76 520	76 570	79 480	85 870	58 950	31 580	47 160	45 550
30	84 070		45 480	78 980	59 520	61 020	74 800	87 780	54 780	31 010	59 080	42 390
31	203 400		73 490		51 200		52 990	87 470		33 750		50 300
Average	55 380	76 210	49 790	87 140	61 290	63 540	50 620	80 320	102 200	54 330	78 090	125 000
Lowest	30 360	32 930	33 690	49 770	38 990	33 460	30 080	44 420	54 780	30 680	33 450	42 390
Highest	203 400	214 200	96 630	187 400	126 400	145 800	118 600	162 300	362 400	148 100	227 200	358 300
Peak flow	220 200	242 700	111 200	223 500	157 100	234 200	198 600	235 100	536 700	174 900	302 200	436 000
Day of peak	31	2	31	2	28	12	27	25	*	5	9	1
Monthly total (million cu m)	148 30	184 40	133 30	225 90	164 10	164 70	135 60	215 10	264 90	145 50	202 40	334 70
Runoff (mm)	52	64	47	79	57	58	47	75	93	51	71	117
Rainfall (mm)	95	29	84	92	88	115	107	175	116	43	139	110

Statistics of monthly data for previous record (Oct 1952 to Dec 1984)

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Mean flows	Avg	85.920	71 090	73 790	68 900	58 240	41 120	39 570	47 880	49 060	69 920	77 080	86 960
	Low	41 070	26 470	35.750	33 580	26 910	17 890	17 910	11 310	14 090	13 340	30 140	38 790
	(year)	1979	1963	1964	1974	1960	1967	1984	1955	1972	1972	1958	1976
	High	145 900	159 100	145 300	135 200	103 400	103 000	79 860	119 600	105.500	153 900	147 000	198 600
	(year)	1983	1962	1978	1979	1968	1966	1980	1956	1965	1981	1984	1954
Runoff	Avg	80	61	69	62	55	37	37	45	44	65	70	81
	Low	38	22	33	30	25	16	17	11	13	12	27	36
	High	137	135	136	122	97	93	75	112	96	144	133	186
Rainfall	Avg	108	71	80	63	77	73	86	95	98	127	111	114
	Low	38	26	29	19	24	30	20	19	21	30	12	11
	High	183	123	179	128	146	181	158	188	178	335	213	211

Summary statistics

	For 1985		For record preceding 1985		1985 As % of pre-1985
Mean flow (m^3s^{-1})	73 530		64 130		115
Lowest yearly mean			44 200	1972	
Highest yearly mean			82 810	1954	
Lowest monthly mean	49 790	Mar	11 310	Aug 1955	
Highest monthly mean	125 000	Dec	198 600	Dec 1954	
Lowest daily mean	30 080	23 Jul	9 311	16 Aug 1955	
Highest daily mean	362 400	1 Sep	1089 000	17 Aug 1970	
Peak	536 700	1 Sep	1675 000	17 Aug 1970	
10 %ile	126 300		120 400		105
50 %ile	61 020		49 340		124
95 %ile	33 150		39 050		174
Annual total (million cu m)	2319 00		2024 00		115
Annual runoff (mm)	810		707		115
Annual rainfall (mm)	1193		1103		108
[1941-70 rainfall average (mm)			1168]		

Factors affecting flow regime

- Regulation for HEP
- Flow reduced by industrial and/or agricultural abstractions

Station description
Velocity-area station. 399 sq km Developed for hydro-electric power production

012001 Dee at Woodend 1985

Measuring authority: NERPB
First year: 1929
Grid reference: NO 635956
Level stn (m OD) 70 49
Catchment area (sq km) 1370.0
Max alt (m OD) 1310

Daily mean gauged discharges (cubic metres per second)

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	36 050	102 800	28 070	86 930	35 090	26 670	40 950	26 370	152 200	51 020	12.730	215 800
2	32 380	99 300	24.490	101.000	31.470	24 230	34.340	32.960	92 780	42 300	12 960	154 700
3	29.810	63 520	23 560	116 800	27 260	22.280	31.180	28 370	89 880	65 610	12 040	268.700
4	29 800	94 790	38 890	91 920	24 060	20.710	28 930	24 210	66 550	112 300	13 720	103 800
5	32 050	66 110	33 230	105.600	22 350	19 870	37 330	36 470	78 100	96 810	44.130	88 430
6	34 170	53 610	28 020	105.400	20 940	19 510	44 060	42.210	57 070	82 630	23 590	80 040
7	34 360	43 430	48 210	70 800	20 140	18 000	31 380	33 140	46 770	58 980	23 040	56 890
8	29 440	36 610	32 410	74 520	20 960	16.740	27 520	33.320	43 970	48 790	59.090	46.710
9	26 840	30.320	51 550	66 950	25 010	18 160	26 150	33 740	51.200	42 510	79 640	41.110
10	24 850	28.100	67 500	53 280	30 720	21.030	24 090	35.930	41.330	37 240	36 940	36.640
11	21.820	25 560	38.970	53 830	26 750	20 150	22 930	30 220	34 230	34 560	26.940	46 630
12	15 850	22 560	31 450	45 050	23 230	42 300	22.270	59 170	31 680	29.790	23 090	103 800
13	19 070	21 310	33 640	41 590	22 550	41 930	26 690	36 810	30 830	27 120	20 490	70 960
14	21 220	20 730	25 870	50 360	24 660	33 330	22 030	66 550	28.290	24 910	24 030	50.820
15	19 770	17 740	22 740	41 760	28 680	30 290	20 100	110 300	32 080	23.280	31 670	54 480
16	19.770	17 990	20 960	47 400	30 520	25 520	20 930	128 300	30 860	21.810	29.770	54 350
17	21.370	18 030	20 230	46 200	27 700	22 210	19 240	73.280	34 890	20 540	24 900	81 070
18	18 990	17 950	18 960	39.020	37 640	22 460	20 510	55.710	29 380	19 830	25 160	63 720
19	18 480	17 940	18.470	49 250	50 730	25 840	19 830	60 330	47.410	18 750	24.950	47 510
20	18 630	18 780	17 480	50 950	34 550	23 130	17 040	56 260	33 200	17 850	21.160	59 560
21	19 660	18 040	17 500	48 110	29 120	25 510	15 660	55 410	97 020	17 100	19 420	118 600
22	20 050	18.920	17 700	39 740	26 400	74.390	15 370	41 140	90 070	16 320	20 890	62.040
23	14 090	100 600	20 450	35 960	28 880	55 340	15 800	37 750	137 800	15 720	22 940	48 550
24	17 470	114 100	28 280	31 450	71 630	95 690	17 960	100 600	72 320	15 190	28 780	48 140
25	18 590	53.660	27 370	30 860	52.880	112 400	17 780	84 010	57 210	14 700	23 910	41 660
26	19 290	36.160	25 990	26.990	73.360	89 100	18 670	61.690	51 690	14 320	21 120	32.490
27	18 240	30 990	23 810	27 390	52 940	82 500	49 860	68 100	45 160	13 820	18 530	21 660
28	18 390	28 700	22 290	25 260	71 660	62 340	28 150	65 600	40 360	13 630	17 900	18 820
29	19.980		21 560	29.330	42.230	50 420	82 520	43 360	35 810	13 510	14 010	16 850
30	35 910		21 830	40 120	33 830	43 290	48 120	54 960	33 540	13 090	28 330	18 190
31	82 110		39 920		29 710		31 500	54 470		13 040		28 510
Average	25 440	43 510	28 750	55 790	34 760	39 510	28 350	53 890	57 120	33 450	26 200	70 360
Lowest	14 090	17.740	17 480	25 260	20 140	16 740	15 370	24 210	28 290	13 040	12.040	16 850
Highest	82 110	114 100	67 500	116 800	73 360	112 400	82 520	128 300	152 200	112.300	79 640	268 700
Peak flow	90 680	179 400	85 710	132 700	101.100	189.100	133 800	162 700	224 700	197.200	174 000	421 300
Day of peak	31	23	10	3	24	24	29	24	1	4	8	3
Monthly total (million cu m)	68 13	105 30	77 02	144 60	93 11	102 40	75.94	144 40	148 10	89 60	67 90	188 50
Runoff (mm)	50	77	56	106	68	75	55	105	108	65	50	138
Rainfall (mm)	116	23	75	79	85	144	101	171	123	45	109	113

Statistics of monthly data for previous record (Oct 1929 to Dec 1984)

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Mean flows	Avg	48 260	40 430	42 250	44 970	35.570	21.970	18 190	21 810	25 690	39 880	47 750	49.150
	Low	15 450	13 420	15 160	11.370	12 130	7.342	7 258	5 141	6 491	6.798	12.230	22 020
	(year)	1940	1947	1973	1938	1946	1940	1984	1984	1972	1972	1983	1976
	High	127 800	90 110	88 680	113 300	77.100	56 080	36 710	63 860	71 820	138 200	127 500	108 400
	(year)	1937	1945	1977	1947	1951	1948	1958	1948	1930	1982	1984	1954
Runoff:	Avg	94	72	83	85	70	42	36	43	49	78	90	96
	Low	30	24	30	22	24	14	14	10	12	13	23	43
	High	250	159	173	214	151	106	72	125	136	270	241	212
Rainfall:	Avg	119	76	76	69	80	66	89	93	95	120	115	120
	Low	36	10	16	12	21	16	24	13	13	8	22	43
	High	374	148	175	196	179	160	206	185	227	310	320	282

Summary statistics

	For 1985		For record preceding 1985		1985 As % of pre-1985
Mean flow (m^3s^{-1})	41 380		36 310		114
Lowest yearly mean			24.190	1973	
Highest yearly mean			49 050	1982	
Lowest monthly mean	25.440	Jan	5.141	Aug 1984	
Highest monthly mean	70 360	Dec	138 200	Oct 1982	
Lowest daily mean	12.040	3 Nov	3.536	27 Aug 1976	
Highest daily mean	268 700	3 Dec	648 500	24 Jan 1937	
Peak	421 300	3 Dec	1133.000	24 Jan 1937	
10 %ile	81 360		72 700		112
50 %ile	31.230		25.490		123
95 %ile	15 960		8 340		191
Annual total (million cu m)	1305.00		1146.00		114
Annual runoff (mm)	953		836		114
Annual rainfall (mm)	1184		1118		106
[1941-70 rainfall average (mm)			1156]		

Factors affecting flow regime

- Natural to within 10% at 95 percentile flow.

Station description

Velocity-area station. The lowest flows prior to 1971 are considered to be of limited accuracy.

015006 Tay at Ballathie 1985

Measuring authority: TRPB
First year: 1952

Grid reference: NO 147367
Level stn. (m OD): 26.29

Catchment area (sq km): 4587.1
Max alt. (m OD): 1214

Daily mean gauged discharges (cubic metres per second)

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	199.400	410 100	129.200	318 500	104 300	79 430	58 440	159.900	432 500	358 300	95 480	483 600
2	179 500	405.800	122.500	300 600	102.600	71.110	55 690	206.900	347 000	335 900	102 500	416 000
3	180 900	295 100	123 300	333 300	88 650	72 440	54 470	187.200	353.000	372 200	101.400	650 400
4	159.700	321.600	177 100	278 300	80 210	58.790	56 420	167.000	301 300	525 200	139 200	449 500
5	124 100	275 500	155 000	387.300	75 200	57 040	76 160	154.900	316 300	505.300	210.100	412 300
6	121.000	242 600	144 200	387.700	76 020	58 410	88 040	136.800	263 400	492 900	183 400	372 900
7	127 500	219 200	178 300	305 100	65 290	55 320	65 280	143.100	240 100	454 000	202.100	341 200
8	132 400	170 000	165.100	251 100	66 120	53 630	61.340	124 100	217.800	412 500	232.200	304 900
9	128.200	138 500	151 200	223.200	63 380	52.610	58 450	154.100	214 400	351 400	344 700	290 300
10	128 000	128 500	173 200	189.600	65 920	49 390	58.650	159 000	186 000	323 600	206.000	248 400
11	123 300	137.300	142 700	193.200	61 260	49.950	59.770	141.500	167.600	316 000	189.600	237 600
12	108 400	134 400	139 600	167.600	58 340	55.520	69.970	171.300	145.700	286 100	171 400	443 500
13	100 000	127 500	140 200	169 200	70 340	56 500	84.380	166 600	149.900	255 800	174.000	363.900
14	107 000	115 200	146 400	163 700	70 280	53 030	69.850	330.500	175.900	241.900	174.300	294 800
15	102 400	109 000	147 000	157.500	71 010	50.430	69 420	441 000	187.700	228 200	169 800	279 600
16	101 100	92 670	109 700	162 500	71 450	46 160	84 890	512.100	195 000	214 800	176.700	267 800
17	110 300	91 490	104.500	151 700	62 200	44.830	97 380	384.300	201 300	205 800	155 700	317 100
18	116 700	89.730	106 600	134.900	65 310	46.310	112 900	332 000	205 600	189.500	161 000	305 600
19	104.700	99.270	95 660	141.500	68 100	45 560	111 200	334 600	294.600	164 500	145.600	306 600
20	95 280	97 340	93 210	128 200	65 000	46 610	121 200	375 700	257 200	151 600	129.900	459 600
21	109 200	109 500	90 500	120 700	61.370	48 680	116 000	374 600	511.100	133 500	122.600	790 800
22	118.600	113 400	89 840	116 300	58 910	171 300	107.200	312 000	461.200	125 100	117.800	540 300
23	104 600	253 400	86 200	117 000	63.540	115.000	103 800	342.500	572 700	120.600	101 200	453 500
24	102 000	272 000	98 020	116.100	140 700	101 500	115 600	569 500	419 300	112 200	92 950	418 700
25	93 880	192.700	99 590	107.100	114 100	110 100	125 200	427 200	343.300	99 530	93.410	363 000
26	85 310	159 300	90 140	105 600	155 400	81 670	248 200	328.200	319 800	86 330	101 500	316 800
27	84 200	135 400	83 070	99 220	119 700	83 850	493 700	369 300	286 800	83 650	91 000	264 600
28	89 960	127 900	78 440	98 050	111 500	73 630	328 700	384 500	257 500	88 590	81 150	240 100
29	98 520		78 430	107.000	100 600	66 360	332 400	302.800	239 200	84 040	84 690	220 300
30	136 000		84 440	110 500	88 290	61 220	247 900	330 000	252.700	78 780	130 600	194 500
31	330 700		162 200		83 460		175.100	344.800		78.430		201.100
Average	125.900	180 900	122 100	188 100	82 210	67.210	126 100	286 100	283.900	241 100	149 400	362.900
Lowest	84 200	89 730	78 430	98.050	58 340	44 830	54.470	124 100	145.700	78 430	81.150	194 500
Highest	330 700	410 100	178 300	387 700	155 400	171 300	493 700	569 500	572.700	525 200	344 700	790 800
Peak flow	389 500	459.400	263 200	443.700	201 500	217.900	619.300	740 900	676 300	700 400	495 900	920 100
Day of peak	31	1	31	5	24	22	27	24	23	4	9	21
Monthly total (million cu m)	337 20	437 60	327 10	487.50	220 20	174 20	337 60	766 20	735 80	645 80	387 20	971 90
Runoff (mm)	74	95	71	106	48	38	74	167	160	141	84	212
Rainfall (mm)	91	40	83	106	79	87	169	250	179	91	131	219

Statistics of monthly data for previous record (Oct 1952 to Dec 1984)

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Mean flows	Avg	238 600	203 500	200 300	143 400	118 300	81.070	65 520	79 610	117 600	186 100	214.600	240 700
	Low	92 910	52 560	69 380	75 210	45 500	42 080	31 390	14 690	40 650	39.680	89 160	112.800
	(year)	1963	1963	1953	1974	1980	1957	1984	1955	1955	1972	1972	1952
	High	515 800	353 700	424 800	231 200	230 800	190 400	111 500	161 100	207.700	390 500	407.700	491'400
	(year)	1974	1962	1967	'960	1983	1966	1970	1956	1982	1982	1984	1954
Runoff	Avg	139	108	117	81	69	46	38	46	66	109	121	141
	Low	54	28	41	43	27	24	18	9	23	23	50	66
	High	301	187	248	131	135	108	65	94	117	228	230	287
Rainfall	Avg	156	103	116	71	97	84	91	102	133	151	147	165
	Low	33	31	39	10	26	49	21	14	11	63	38	64
	High	393	182	224	150	200	181	144	184	266	269	311	271

Summary statistics

	For 1985		For record preceding 1985		1985 As % of pre-1985
Mean flow (m^3s^{-1})	184 800		157 300		117
Lowest yearly mean			107 300	1955	
Highest yearly mean			207 900	1954	
Lowest monthly mean	67 210	Jun	14 690	Aug 1955	
Highest monthly mean	362 900	Dec	515 800	Jan 1974	
Lowest daily mean	44 830	17 Jun	11 460	6 Aug 1955	
Highest daily mean	790 800	21 Dec	1223 000	27 Nov 1954	
Peak	920 100	21 Dec	1570 000	30 Jan 1974	
10 %ile	369 600		304 600		121
50 %ile	139 000		127 400		109
95 %ile	56 800		42 550		133
Annual total (million cu m)	5828 00		4964 00		117
Annual runoff (mm)	1270		1082		117
Annual rainfall (mm)	1525		1416		108
[1941-70 rainfall average (mm)			1442]		

Factors affecting flow regime

- Reservoir(s) in catchment
- Regulation for HEP.
- Abstraction for public water supplies.
- Flow reduced by industrial and/or agricultural abstractions.

Station description

Velocity-area station. 1980 sq km developed for hydro-electric power production, 73 sq km for water supply purposes. Due to implementation of Hydro Board schemes, the river was partially regulated up to the end of 1957, and totally regulated after this date.

019001 Almond at Craigiehall 1985

Measuring authority: FRPB
First year: 1957
Grid reference: NT 165752
Level stn (m OD): 22.90
Catchment area (sq km): 369.0
Max alt (m OD): 518

Daily mean gauged discharges (cubic metres per second)

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	4 493	14 340	2.136	39 440	2 059	1 450	1 428	6 067	13 000	34 180	2 197	30 580
2	3.850	11 860	2 085	17 360	1 850	1 346	1 313	11 110	13 650	12 800	2 097	21 170
3	3 411	7 872	2.372	10.040	1 722	1 318	1 280	9.830	23 930	11.780	2 119	16 340
4	3.089	6 304	3 272	7 142	1 615	1 317	1 270	6 696	11 580	19 940	2.986	11 130
5	3 011	5.193	2.637	7.348	1 612	1.244	2 273	4 980	8 811	12 040	5 681	12 020
6	3 011	4 293	2 229	20 670	1 712	1.166	1 659	3 652	6 019	8 394	6 205	21 760
7	2.993	3 791	1 976	11.990	1 621	1.287	1 327	3 021	7.579	6 630	6 931	47 780
8	2 910	3 438	1 819	12 540	1 522	1 209	1 498	2 705	18 760	5 704	6 818	34 250
9	2.719	2 859	1.722	11.240	1 457	1 374	1 369	2 484	9 308	5 914	14 020	16 080
10	2 572	2 516	1 912	8 235	1 383	1 438	1 190	2.197	6 357	6 761	8 074	10 980
11	2 381	2 186	1 721	11.280	1 276	1 619	1 315	7 912	5 020	6 885	5 284	10 880
12	2.090	2 019	1 682	8 799	1 272	1 958	2 247	11 520	4 313	4 761	4 779	14 800
13	2.140	1.946	1 716	7 269	1 255	2 424	2 277	7 491	3 793	4 165	3 531	11.150
14	2 080	1 829	1 655	5 602	2 082	2 033	3 366	29 270	4.266	3 947	4.130	7 975
15	2 089	1 652	1.645	4 621	2 427	1.740	2 163	18 270	5 735	3 681	5 080	7 600
16	2.320	1.795	1 507	4 496	1 792	1 465	2 906	12 980	6 508	3 352	8 664	7 017
17	2 620	1 793	1 402	3 678	1 609	1 454	5 154	7.742	7 270	3 221	5 704	10 140
18	2 574	1 674	1 341	3 296	2 887	1 481	5 105	5 638	18 440	3 070	4 476	11 130
19	2 548	1 801	1 329	3.547	4 122	1 475	2 669	4.738	29 920	2 838	3 956	11 180
20	2 444	1 925	1 341	2 758	2 781	1 412	2 310	12 440	21 030	2 704	3 993	26 740
21	4 005	1 768	1 343	2 453	2 224	1 562	2 214	13 320	142 300	2 641	4 439	45 680
22	5.555	1 869	1 641	2 170	1 994	1 607	16 900	9 514	107 900	2 549	4 240	15 470
23	4 157	5 923	2 558	1 941	2 219	1 577	7 787	8 276	45.720	2 504	3 887	13 490
24	3 302	4 689	6 683	1 920	4 391	2.192	8 349	10 580	19 700	2 462	4 508	9 843
25	3 000	3 213	8 119	1 855	7 846	1 801	4 028	10 030	13 110	2 310	4.170	19 920
26	2 307	2 737	6 002	1 812	6 240	2.757	43 700	6 523	10 660	2 753	3 607	15 000
27	2.423	2.404	4 067	1 763	3 512	2 046	57 030	10 110	8 757	2 216	3 172	7 655
28	2 659	2 187	3 176	1 952	2 562	1 664	24 260	9 483	7 647	2 243	2 709	5 408
29	21 780		3.705	1.956	1 974	1.541	48 710	5 810	6 672	2 174	2 264	4 198
30	13 710		38 490	2.028	1 709	1 486	19 090	5 132	23 130	2 244	12 550	4 096
31	17 590		58 380		1 559		8 567	6 080		2 235		4 820
Average	4 382	3 781	5 538	7 373	2 396	1 615	9 186	8 568	20 360	6 064	5 056	15 690
Lowest	2 080	1 652	1 329	1 763	1 255	1.166	1 190	2 197	3 793	2 174	2 097	4 096
Highest	21 780	14 340	58 380	39 440	7 846	2 757	57 030	29 270	142 300	34 180	14 020	47 780
Peak flow	38 030	16 430	81 320	51 630	13 130	4.089	106 200	66 880	169 700	87 390	65 210	77 410
Day of peak	29	1	31	1	25	13	27	14	21	1	30	7
Monthly total (million cu m)	11.74	9 15	14 83	19 11	6 42	4.19	24 60	22 95	52 78	16 24	13.10	42 01
Runoff (mm)	32	25	40	52	17	11	67	62	143	44	36	114
Rainfall (mm)	40	17	82	63	52	56	173	134	195	30	72	129

Statistics of monthly data for previous record (Jan 1957 to Dec 1984)

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Mean flows	Avg	9.024	7 532	6 251	3.947	3 052	2 386	2 046	2 872	4 104	6 190	9 586	8 712
	Low	3 574	1 782	1 918	1 409	1 091	0 817	0 951	0 869	0 668	0 668	1 862	3 016
	(year)	1963	1963	1973	1974	1961	1961	1960	1983	1959	1972	1972	1975
	High	16 300	15 450	14 300	8 374	11.170	8.572	9 224	8.434	12 680	15.120	21 660	16 280
	(year)	1984	1984	1979	1972	1968	1966	1958	1966	1962	1981	1963	1974
Runoff	Avg	65	50	45	28	22	17	15	21	29	45	67	63
	Low	26	12	14	10	8	6	7	6	5	5	13	22
	High	118	105	104	59	81	60	67	61	89	110	152	118
Rainfall	Avg	79	56	65	49	61	60	68	80	88	89	94	82
	Low	28	17	22	8	16	24	23	19	14	23	19	21
	High	145	107	127	88	123	136	165	142	159	177	190	154

Summary statistics

	For 1985		For record preceding 1985		1985 As % of pre-1985
Mean flow (m^3s^{-1})	7 519		5 465		138
Lowest yearly mean			2 890	1973	
Highest yearly mean			7 503	1982	
Lowest monthly mean	1 615	Jun	0 668	Sep 1959	
Highest monthly mean	20 360	Sep	21 660	Nov 1963	
Lowest daily mean	1 166	6 Jun	0 241	9 Oct 1959	
Highest daily mean	142 300	21 Sep	120 400	22 Nov 1969	
Peak	169 700	21 Sep	199 600	3 Nov 1984	
10 %ile	16 260		12 550		130
50 %ile	3 578		2 736		131
95 %ile	1 355		0 852		159
Annual total (million cu m)	237 10		172 50		137
Annual runoff (mm)	643		467		137
Annual rainfall (mm)	1043		871		120
[1941-70 rainfall average (mm)			916]		

Factors affecting flow regime

- Abstraction for public water supplies
- Flow reduced by industrial and/or agricultural abstractions
- Augmentation from effluent returns

Station description

Velocity-area station

021009 Tweed at Norham 1985

Measuring authority TWRP
First year: 1959

Grid reference NT 898477
Level stn. (m OD) 4.27

Catchment area (sq km) 4390.0
Max alt. (m OD) 839

Daily mean gauged discharges (cubic metres per second)

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	65.980	253.500	32.620	409.900	39.920	32.290	21.980	121.800	143.200	83.130	28.100	309.900
2	67.470	197.400	32.570	296.200	35.760	29.920	20.560	121.800	108.000	83.220	27.260	205.200
3	71.850	137.400	32.650	220.200	33.650	28.040	19.390	109.100	186.700	137.800	26.250	226.800
4	72.200	116.000	52.310	178.900	32.450	25.760	18.870	90.280	132.300	216.800	25.090	122.600
5	71.550	98.450	51.140	204.000	31.240	25.070	18.670	91.380	115.900	173.000	38.160	132.500
6	69.880	84.200	40.340	183.100	30.510	24.670	18.950	88.820	94.000	154.000	44.230	144.900
7	69.350	75.000	38.400	153.800	29.530	24.010	17.730	72.560	100.900	135.300	46.720	266.100
8	69.460	68.670	36.880	139.700	27.840	23.970	16.910	64.650	176.500	111.300	40.250	214.200
9	68.400	60.060	34.120	133.600	26.470	24.310	17.220	64.650	118.400	94.580	105.100	154.100
10	66.400	54.040	34.620	126.900	28.090	24.730	17.180	61.270	100.100	81.550	93.800	120.100
11	60.950	49.930	36.400	223.500	28.830	22.690	16.740	81.400	86.070	81.100	56.420	119.500
12	51.100	45.130	32.960	218.100	25.880	33.860	18.230	201.500	76.100	68.310	46.200	121.500
13	50.000	44.010	32.050	169.500	24.310	47.360	24.470	133.800	67.960	60.630	41.200	172.300
14	47.960	41.360	30.710	156.500	25.500	45.940	31.390	261.900	65.230	56.280	38.870	113.400
15	49.790	34.020	29.880	122.200	41.090	36.720	34.530	406.600	68.660	52.040	49.860	100.800
16	47.980	34.250	31.120	105.100	36.390	29.940	25.460	349.800	61.920	49.060	67.230	87.310
17	49.570	36.430	31.260	90.760	29.360	26.820	27.360	212.400	66.720	45.500	70.470	81.160
18	47.980	34.510	31.430	79.710	28.660	25.850	82.150	156.200	78.380	43.480	52.990	87.180
19	46.670	32.880	31.740	71.070	75.090	25.340	71.440	163.700	251.500	40.920	47.210	88.300
20	44.650	32.410	31.050	63.300	55.010	26.160	47.050	152.200	126.000	38.970	45.060	189.600
21	65.400	32.590	30.900	59.470	40.980	24.360	38.520	161.400	786.700	37.130	45.040	682.500
22	103.700	32.860	44.830	56.610	36.580	26.140	81.110	137.700	772.900	34.930	42.640	288.200
23	75.440	45.450	149.900	51.130	33.670	28.710	100.800	110.100	521.600	33.740	44.780	224.400
24	54.350	56.420	212.700	47.470	63.010	54.620	67.660	190.500	306.300	32.610	49.320	169.000
25	51.900	43.370	168.600	44.800	89.320	42.780	55.990	149.700	204.200	30.940	64.610	143.700
26	43.890	37.230	115.100	42.460	93.730	34.680	176.600	131.700	162.100	29.900	61.700	152.900
27	34.620	34.200	89.470	41.560	61.300	34.400	505.200	134.200	131.000	28.690	50.990	111.800
28	49.000	32.360	71.280	39.740	55.320	31.560	253.300	187.600	109.400	27.450	44.450	89.960
29	196.200		70.260	42.210	44.890	29.000	293.300	131.600	94.340	26.980	40.620	77.260
30	309.100		295.100	42.250	38.230	26.310	329.700	104.900	84.280	26.540	40.580	74.560
31	368.000		372.200		35.600		176.900	90.460		27.210		91.150
Average	81.960	65.860	74.990	127.100	41.230	30.530	85.330	146.300	179.900	69.130	49.170	166.500
Lowest	34.620	32.360	29.880	39.740	24.310	22.690	16.740	61.270	61.920	26.540	25.090	74.560
Highest	368.000	253.500	372.200	409.900	93.730	54.620	505.200	406.600	786.700	216.800	105.100	682.500
Peak flow	449.100	273.900	483.900	508.600	123.800	74.120	620.900	578.800	1016.000	290.400	135.500	873.700
Day of peak	31	1	30	1	26	24	27	14	21	4	9	21
Monthly total (million cu m)	219.50	159.30	200.80	329.50	110.40	79.14	228.60	391.90	466.30	185.20	127.50	446.10
Runoff (mm)	50	36	46	75	25	18	52	89	106	42	29	102
Rainfall (mm)	79	15	109	78	69	73	160	165	153	44	81	130

Statistics of monthly data for previous record (Oct 1982 to Dec 1984)

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Mean flows	Avg	121.900	103.800	104.000	64.730	57.000	36.950	28.800	37.960	50.370	80.640	115.400	111.100
	Low	50.320	37.180	26.290	25.180	17.950	15.550	11.650	9.883	10.990	10.180	24.710	40.700
	(year)	1973	1963	1973	1974	1980	1974	1984	1976	1972	1972	1973	1975
	High	249.700	173.300	236.400	142.200	153.300	66.210	67.680	116.500	125.600	176.300	271.700	197.900
	(year)	1982	1978	1963	1979	1967	1981	1965	1966	1965	1967	1963	1979
Runoff	Avg	74	58	63	38	35	22	18	23	30	49	68	68
	Low	31	20	16	15	11	9	7	6	6	6	15	25
	High	152	99	144	84	94	39	41	71	74	108	160	121
Rainfall	Avg	95	66	81	57	75	69	69	85	95	94	103	89
	Low	45	23	21	12	22	25	24	21	19	25	16	23
	High	165	125	138	98	181	129	140	188	164	163	224	175

Summary statistics

	For 1985		For record preceding 1985		1985 As % of pre-1985
Mean flow (m^3s^{-1})	93.360		75.950		123
Lowest yearly mean			33.910	1973	
Highest yearly mean			102.400	1963	
Lowest monthly mean	30.530	Jun	9.883	Aug 1976	
Highest monthly mean	179.900	Sep	271.700	Nov 1963	
Lowest daily mean	16.740	11 Jul	7.427	28 Aug 1976	
Highest daily mean	786.700	21 Sep	1138.000	4 Jan 1982	
Peak	1016.000	21 Sep	1518.000	4 Jan 1982	
10 %ile	198.400		162.000		122
50 %ile	59.250		51.140		116
95 %ile	24.480		13.860		177
Annual total (million cu m)	2944.00		2397.00		123
Annual runoff (mm)	671		546		123
Annual rainfall (mm)	1156		978		118
[1941-70 rainfall average (mm)			1039]		

Factors affecting flow regime

- Reservoir(s) in catchment
- Abstraction for public water supplies

Station description
Velocity-area station

022001 Coquet at Morwick 1985

Measuring authority: NWA
First year: 1966

Grid reference: NU 234044
Level stn (m OD) 5.25

Catchment area (sq km) 569.8
Max alt (m OD) 776

Daily mean gauged discharges (cubic metres per second)

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	9.222	9 222	4.908	36 800	4 419	3 523	3 732	7 453	11 600	4 593	2 345	44 680
2	16 320	16 320	6 025	20 760	3 965	3 117	2 643	7 298	11 840	4 315	2 386	22 840
3	17 110	17 110	7.001	15 100	3 666	2.836	2 485	6 156	16 770	6 695	2 398	22 120
4	20 960	20 960	11 080	15 080	3 481	2 685	1 880	5 271	9 313	8 499	2.342	12 710
5	19.890	19 890	7 962	21 070	3 385	2.634	2.385	10 640	8 284	7.656	2.892	14 310
6	19.630	19 630	5 880	17 050	3 339	2.671	2 297	12 380	7 405	6 022	4 654	21 500
7	14.590	14 590	5.292	13 890	3 317	2 620	2.193	8 228	13 600	5 464	3 620	37 270
8	10 720	10 720	4 821	16 910	3 147	2 511	2 085	6 276	22 370	5 551	4 206	31 020
9	13.240	9 641	4.460	17 260	3 095	2 642	2 266	6 293	10 570	4 983	34 530	16 510
10	13 830	8 839	4 463	15 620	3 041	2 476	2 127	4.980	8 226	4 532	20 700	12 400
11	9 691	8 247	4 779	42 250	2 989	2 592	1 974	6 508	6 805	4 180	8 917	15.870
12	7.262	6 996	4 298	23.200	2.938	4 720	1 974	12 710	5 956	3 834	8 849	14 980
13	8 135	6.137	4.063	15 590	2 886	11 650	1 996	7.115	5 263	3.658	7 529	14 030
14	7.672	5 751	3 820	16 630	3 370	11 210	2 134	22 560	4 914	3 568	5 857	10 620
15	7 271	5 332	3.669	13.570	8 375	6 865	2 118	21 400	4 500	3 388	7 603	8.974
16	7.497	5 016	3 886	10 550	5 909	5.074	2 004	18.900	4 096	3.264	13.400	7.856
17	8.321	4 846	4 154	8 836	4 122	4 220	1 970	11 000	3 988	3 150	10 980	7 553
18	8 313	3 845	4 536	7 731	9 901	3 768	1 944	8 351	3 830	3.054	7 458	8 953
19	8 195	4 413	4 441	6 977	21 670	3 601	2 101	7 766	5 969	2 938	6 436	8 141
20	7 387	4 324	4 303	6 227	7 921	3.383	1 983	6.918	5 245	2.836	6.456	9 942
21	39 620	4 156	4 244	6 466	5 390	3.148	1 924	7 091	39 250	2.768	7 530	31.590
22	31 030	3 947	14 000	6.430	4 557	3 412	2 710	6 522	50 740	2.694	6 495	17 720
23	12.910	3 930	44.890	5 420	4 091	5 051	5 041	5 410	25 880	2 637	6 980	15 050
24	8 651	4 281	24 940	4.976	7 274	12 680	3 085	11 610	13 730	2.573	8 444	14 780
25	7.955	4 470	17.650	4 618	7 191	7 980	2 426	8 607	9 713	2 530	11 210	10 790
26	6.814	6 263	12.880	4 374	5 795	5 164	3 266	7 211	8 019	2 485	11.290	13 200
27	5 745	6 805	10 990	4 249	6 604	4 338	24 200	5 678	6 869	2 416	7.910	9 190
28	12.490	6 823	8.761	4 159	9 070	3.878	14 890	21 970	5 959	2 387	6 431	7 610
29	47 130		12.180	4 380	5 287	3 488	22 440	10 590	5 393	2 352	5 534	6 779
30	45.070		50 490	4 759	4 246	3 076	31 510	8 605	4 949	2 336	9 493	6 895
31	56 320		34.370		3 779		10 910	7 302		2 331		13 950
Average	16.420	8 661	10.940	13 030	5 426	4.567	5 377	9 639	11 370	3 861	8 163	15.800
Lowest	5 745	3 845	3 669	4.159	2 886	2.476	1 880	4.980	3 830	2 331	2.342	6 779
Highest	56 320	20 960	50 490	42 250	21 670	12 680	31 510	22.560	50 740	8.499	34 530	44 680
Peak flow	80 300	25 780	61 540	56 070	38.770	23.780	45 230	56.450	55 800	11 520	41 050	57 370
Day of peak	31	5	30	11	18	24	30	14	22	3	9	21
Monthly total (million cu m)	43 98	20 95	29 31	33 78	14 53	11 84	14 40	25 82	29 47	10 34	21 16	42 32
Runoff (mm)	77	37	51	59	26	21	25	45	52	18	37	74
Rainfall (mm)	116	18	94	72	72	74	108	121	89	22	101	87

Statistics of monthly data for previous record (Nov 1963 to Dec 1984—incomplete or missing months total 0.1 years)

Mean flows	Avg	14 940	13 700	13 040	8 091	5.949	3.712	3 105	3 688	4 451	7 852	12.790	13 010
	Low	5 421	2 673	1.730	2.928	2 038	1.141	1 168	1.232	1 418	1 083	1.926	4 563
	(year)	1973	1973	1973	1974	1984	1970	1984	1983	1972	1972	1973	1971
	High	32.310	26 350	31.390	15 810	15 410	6.355	7 969	12 720	14 240	26 860	31 370	33 340
	(year)	1982	1978	1979	1983	1983	1969	1968	1966	1965	1976	1965	1978
Runoff	Avg	70	59	61	37	28	17	15	17	20	37	58	61
	Low	25	11	8	13	10	5	5	6	6	5	9	21
	High	152	112	148	72	72	29	37	60	65	126	143	157
Rainfall (1966-1984)	Avg	89	61	81	51	67	57	62	68	81	77	88	83
	Low	38	15	18	8	18	8	19	18	15	19	19	31
	High	140	120	144	118	127	129	101	132	215	176	214	251

Summary statistics

	For 1985		For record preceding 1985		1985 As % of pre-1985
Mean flow (m^3s^{-1})	9 446		8 672		109
Lowest yearly mean			3 716	1973	
Highest yearly mean			11 380	1969	
Lowest monthly mean	3 861	Oct	1 083	Oct 1972	
Highest monthly mean	16 420	Jan	33 340	Dec 1978	
Lowest daily mean	1 880	4 Jul	0 510	14 Jul 1964	
Highest daily mean	56.320	31 Jan	203 200	3 Jan 1982	
Peak	80 300	31 Jan	289 700	4 Jan 1982	
10 %ile	20 430		18 900		108
50 %ile	6 700		4 925		136
95 %ile	2 333		1 341		174
Annual total (million cu m)	297 90		273 70		109
Annual runoff (mm)	523		480		109
Annual rainfall (mm)	974		865		113
[1941-70 rainfall average (mm)			880]		

Factors affecting flow regime

- Natural to within 10% at 95 percentile flow.

Station description
Velocity-area station. Informal flat V weir installed 1976

023006 South Tyne at Featherstone 1985

Measuring authority: NWA
First year: 1966
Grid reference: NY 672611
Level stn. (m OD) 131.70
Catchment area (sq km) 321.9
Max alt. (m OD): 893

Daily mean gauged discharges (cubic metres per second)

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	6 098	22.190	3 489	41 030	5 403	2 675	2.413	5 590	30.910	4 692	2 805	39 180
2	5.371	11 820	3 226	15 300	3 699	2 352	2.210	15 250	30 020	4 692	3.218	13 830
3	4.882	8 816	4 500	11.000	3 061	2 121	2.009	16 620	43.250	18.000	2 678	14 340
4	4.949	7 635	20 760	14 510	2 782	2 023	1 853	49 280	13 410	20 060	2 963	7 607
5	4 939	5 852	8 672	12.530	2 687	1 998	1 961	34 650	10 570	8 613	22 660	8 310
6	4.785	4 961	5 240	10 520	2 818	1 995	1.899	23.740	7.513	8 201	11 200	15.220
7	4 415	4.487	4 773	9 615	2 415	2.090	1.738	11 940	41 870	12.130	10.240	20 810
8	4 085	3.790	3 807	10 310	2 208	2 175	3 254	9.557	20 660	11 350	41 950	15 380
9	3 841	3 030	3 383	8 411	2.157	13 840	4 289	7.736	9 569	13 630	36 590	8 401
10	3.668	2.815	4.597	7.611	2 359	4.784	2.339	5.626	7.014	17 520	12.830	8 823
11	3 039	2 509	3 818	47 680	2 265	33 570	2 080	26 610	5 851	12 000	7 308	8 612
12	3.194	2 411	3.212	22 660	2 059	22 750	5.116	17 200	5.151	6 787	5.587	52 630
13	3 181	2 748	4 249	30 290	2 014	10 530	11 030	9 646	4 783	5 602	4.708	32 850
14	3 006	2 182	3.369	17.280	13 190	6 425	15 210	32 960	7 651	4 955	6 938	11 540
15	2.990	2 028	3.221	10.750	10 870	4 670	4.605	51 840	10 660	4 571	9 792	11 010
16	2 986	2 222	3.272	8 697	5 597	3 634	4 194	24 260	30 560	4 226	23.120	9.259
17	2.908	2 168	3.176	7 274	3 819	3.195	18 690	13 880	12 090	3.926	8 853	33 710
18	2.926	2.061	3.144	5.795	5.293	3.147	9 218	10 250	35.390	3 718	6 049	22 800
19	2.856	2 078	2 943	4 890	6 359	2 813	8 691	15.620	26.750	3 482	5.213	30 370
20	2 635	2 291	2 781	4 223	4 046	2 717	11 330	16 110	23 230	3 294	5 014	108 500
21	6.859	2 430	2.533	5.028	3 159	2 841	6 885	11 270	177 200	3 151	5 060	91 780
22	8 308	6 224	7 571	4 437	2 816	4 428	17 300	9 876	61 380	3 014	4 617	28 370
23	4 385	24.570	13 140	3 751	2.627	10 350	9.706	18.500	29 640	2 874	10 590	46 330
24	4 145	8.594	13 700	3.314	14.870	8.887	8 630	19 030	16 250	2.783	9 222	19.770
25	3 703	5 297	11 270	3.051	14.230	4.533	5 019	44 680	11 010	2.689	8.814	16 420
26	3.203	4.488	7 852	2.993	11 720	3 408	54 540	12 870	11 850	2 613	6 125	15 740
27	3 078	3.887	5 899	2 979	15 950	3 272	27 090	28 250	8.399	2 541	4 403	9 398
28	7 435	3 622	5 591	2 894	10 190	3 770	23 690	17 370	6 682	2 475	3 834	5 115
29	48 350		54 400	3.835	5 015	3 019	17 910	9 905	5 760	2 433	3 517	4 029
30	42 460		64 490	6 974	3 817	2 528	14 330	7 674	5.117	2 376	12.680	4.743
31	31 200		27.000		3 133		7 328	18 770		2 628		7 759
Average	7 738	5 615	9 970	11 320	5 569	5 885	9 889	19 240	23.670	6 485	9 953	23.310
Lowest	2 635	2 028	2.533	2 894	2 014	1.995	1 738	5 590	4 783	2 376	2.678	4 029
Highest	48 350	24 570	64 490	47.680	15 950	33 570	54 540	51 840	177 200	20 060	41.950	108 500
Peak flow	86 060	49 240	120 400	84 110	54 370	102 100	113 000	151 700	251 300	40 690	156 700	208 300
Day of peak	30	23	29	11	14	11	26	15	21	4	8	20
Monthly total (million cu m)	20 73	13 58	26 70	29 34	14 92	15 25	26 49	51.54	61 36	17 37	25.80	62 44
Runoff (mm)	64	42	83	91	46	47	82	160	191	54	80	194
Rainfall (mm)	74	28	129	107	83	110	165	248	233	59	126	200

Statistics of monthly data for previous record (Oct 1966 to Dec 1984—incomplete or missing months total 0.2 years)

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Mean flows	Avg	16 100	12 080	13 370	8 493	6 285	5 094	4 416	5 783	9 071	12 680	16 130	14 450
	Low	10.540	5.122	5 860	1 850	1 311	1 465	1 255	0 960	1 467	1 181	6 616	5 110
	(year)	1970	1968	1975	1974	1980	1978	1984	1976	1972	1972	1983	1971
	High	25 510	19 760	30.210	16 210	13 850	12.740	9 385	13 140	17 780	30 330	24 670	28 810
	(year)	1975	1974	1979	1979	1983	1980	1968	1967	1968	1967	1984	1974
Runoff	Avg	134	92	111	68	52	41	37	48	73	106	130	120
	Low	88	40	49	15	11	12	10	8	12	10	53	43
	High	212	148	251	131	115	103	78	109	143	252	199	240
Rainfall	Avg	136	85	117	70	85	91	91	103	128	138	147	127
	Low	74	31	44	11	40	44	43	25	40	27	63	42
	High	213	166	199	133	178	215	141	182	239	331	245	215

Summary statistics

	For 1985		For record preceding 1985		1985 As % of pre-1985
Mean flow (m^3s^{-1})	11 590		10 320		112
Lowest yearly mean			7 630	1971	
Highest yearly mean			12 920	1979	
Lowest monthly mean	5 569	May	0 960	Aug 1976	
Highest monthly mean	23.670	Sep	30 330	Oct 1967	
Lowest daily mean	1 738	7 Jul	0 713	26 Aug 1976	
Highest daily mean	177 200	21 Sep	174 000	3 Jan 1982	
Peak	251 300	21 Sep	309 900	3 Nov 1984	
10 %ile	27 640		24 390		113
50 %ile	5 922		5 236		113
95 %ile	2 175		1 345		162
Annual total (million cu m)	365 50		325 70		112
Annual runoff (mm)	1135		1012		112
Annual rainfall (mm)	1562		1318		119
* [1941-70 rainfall average (mm)			1441]		

Factors affecting flow regime

- Natural to within 10% at 95 percentile flow

Station description
Compound Crump weir Two crests 15.2 m and 29.6 m broad

025001 Tees at Broken Scar 1985

Measuring authority: NWA
First year: 1956

Grid reference: NZ 259137
Level stn. (m OD) 37.20

Catchment area (sq km) 818.4
Max alt. (m OD) 893

Daily mean gauged discharges (cubic metres per second)

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	8.493	50 690	4 126	66 380	4 966	8.395	3 264	9 909	41 230	7 906	3 942	86 690
2	8 431	26 780	3 966	34 800	4 176	4 715	3 270	22 360	27 980	7 592	5.767	30 540
3	11.790	17.340	7.506	26 690	3.916	6.695	3 352	38 570	50 800	11 450	5.020	30 850
4	11.740	16 800	18 760	36 130	4 697	8 667	3 434	82 380	21 320	13 080	4.626	17 170
5	8 481	13 010	10.910	40 280	4.747	8.769	3 627	74 110	18 810	10 760	29 630	23 210
6	8.771	12 660	5 590	25.650	4 624	8.197	3 374	31.160	13 600	24 060	17 070	26 990
7	8 864	12 370	4 892	27.280	3 425	7 772	3 561	23 360	40 460	34 880	20 700	37 830
8	7 978	10 190	4 190	29 100	4 585	5 927	4 015	16.440	45 310	28 290	32 520	36 350
9	8 050	8 247	3 514	17 860	3 394	13 110	4 579	11 520	19 920	23 000	54 950	18 660
10	7.982	7 983	3 410	14 140	2 794	10 530	3 395	6 044	15 920	18 540	42 850	13 680
11	6 981	7.370	3 293	75 520	3 180	9 501	3 360	28 360	12 120	24 160	18 850	20 140
12	5 702	6 928	2 675	45 090	3 367	27 940	7 303	35 370	10.200	15 690	9 725	21 670
13	5.743	6.192	2 982	60 610	3 582	14 880	11 420	14 210	8 465	13 760	7.152	40 090
14	3 815	4 956	3 655	41 030	70 770	10 930	11 790	51 490	11.100	8 242	5 676	20 340
15	4.411	2 839	3.329	20 090	45 340	9.195	4 164	51.740	19 380	6.795	6 588	20 270
16	4.778	5 233	3.360	15 780	18 060	8 493	3 295	39.730	21 660	6 718	15 790	15 830
17	5 117	5 139	3 220	10 950	10 200	8 113	6 295	25 040	26.830	6 208	17.990	17 950
18	5.445	4 062	3 626	8 297	7 762	6 727	10 590	12 280	16 870	5 995	11 380	22 790
19	7 717	4 813	3 787	7 599	9 357	3.974	4 557	17 490	25.830	7 212	7 647	22.430
20	7.521	4 417	3 738	7 319	7 911	3 737	9 683	23 980	13 420	6 059	7 041	81 560
21	17.140	4 022	3 023	7.729	5 810	4.987	9 112	22 450	100 500	5 051	6 302	160 100
22	25 400	4 185	18 720	6 673	5 066	10 420	12 510	15 050	76.250	4 858	7 436	55.310
23	13.480	14 790	45.590	5 106	4 581	7.311	11 020	13 890	34 620	4 534	22 750	61 730
24	10 060	11.140	28 170	4 934	21.680	7 968	8 603	30 260	22 450	4 085	20.600	41 280
25	8.748	6 862	21.950	5.257	23 150	5 211	6 998	33 220	16 950	4 061	13 700	54 020
26	7 383	8.746	14 450	4 914	19 470	4 058	29 220	18 640	19 600	4 061	9 557	41 060
27	6 917	4 970	10 810	5 533	15 350	3.720	29 320	39 640	15 180	3 964	6.073	27 000
28	10 670	4.106	8 167	5 274	20 480	4 417	34 920	53 310	9.758	3 978	4.256	23 060
29	66 260		22 700	5 251	12.670	3.528	27 030	17 910	8 915	3 751	4 006	20 210
30	101 000		79 650	5 936	10 790	3 179	22 440	14 130	8 545	3 747	5.371	16 280
31	78 590		37.510		9 681		12 860	10 110		3 855		23 610
Average	15 920	10 240	12 620	22 240	11 920	8.036	10 080	28 520	25 800	10 530	14 170	36 410
Lowest	3 815	2.839	2.675	4 914	2 794	3.179	3 264	6 044	8 465	3 747	3.942	13 680
Highest	101 000	50 690	79 650	75 520	70 770	27 940	34 920	82 380	100.500	34.880	54.950	160.100
Peak flow	193 600	77.860	122.800	124 500	311 500	58.510	113 500	249 400	240 400	66 840	89.840	285 000
Day of peak	30	1	30	11	14	12	26	4	21	7	9	21
Monthly total (million cu m)	42 63	24 78	33.81	57.65	31 93	20.83	26 99	76.39	66.87	28 20	36.72	97 52
Runoff (mm)	52	30	41	70	39	25	33	93	82	34	45	119
Rainfall (mm)	95	16	90	86	96	59	101	181	98	40	102	127

Statistics of monthly data for previous record (Oct 1956 to Dec 1984)

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Mean flows	Avg	29 050	23 560	23 000	17.780	10 190	6 370	6 068	9 164	10 790	17 830	22 860	27.190
	Low	2.906	2 804	5.482	2 539	2 008	0 502	1 794	0 458	0 638	2 707	4 060	5 778
	(year)	1963	1963	1975	1957	1959	1957	1969	1959	1959	1969	1958	1971
	High	50.240	51 540	68 660	60 870	27 020	15 270	15 090	24 830	24 350	53 940	51.580	50 040
	(year)	1982	1966	1979	1977	1967	1972	1961	1957	1968	1967	1963	1979
Runoff	Avg	95	70	75	56	33	20	20	30	34	58	72	89
	Low	10	8	18	8	7	2	6	2	2	9	13	19
	High	164	152	225	193	88	48	49	81	77	177	163	164
Rainfall	Avg	120	86	95	74	79	76	81	97	101	105	114	121
	Low	51	23	29	10	18	22	28	23	19	27	25	43
	High	183	175	224	150	167	182	150	190	222	226	221	268

Summary statistics

	For 1985		For record preceding 1985		1985 As % of pre-1985
Mean flow (m^3s^{-1})	17.260		16 970		102
Lowest yearly mean			9 383	1973	
Highest yearly mean			23 220	1979	
Lowest monthly mean	8 036	Jun	0 458	Aug 1959	
Highest monthly mean	36 410	Dec	68 660	Mar 1979	
Lowest daily mean	2 675	12 Mar	0 023	16 Oct 1959	
Highest daily mean	160 100	21 Dec	391 500	3 Jan 1982	
Peak	311 500	14 May	679 300	23 Mar 1968	
10 %ile	39 800		42 830		93
50 %ile	10 280		7 868		131
95 %ile	3 393		1.312		259
Annual total (million cu m)	544 30		535.60		102
Annual runoff (mm)	665		654		102
Annual rainfall (mm)	1091		1149		95
[1941-70 rainfall average (mm)			1226]		

Factors affecting flow regime

- Reservoir(s) in catchment.
- Abstraction for public water supplies
- Augmentation from surface water and/or groundwater.

Station description

Compound Crump weir 64 m broad with two low sills each 4 6 m broad. Excess flows from Cocker Beck (R Skerne) diverted into catchment via Baydale Beck. See 025010 Mowden Bridge

027002 Wharfe at Flint Mill Weir 1985

Measuring authority: YWA
First year: 1937
Grid reference: SE 422473
Level stn. (m OD) 13.67
Catchment area (sq km): 758.9
Max alt. (m OD): 704

Daily mean gauged discharges (cubic metres per second)

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	12 740	54.160	5 978	41 720	5.959	6.485	3 002	9 988	23.290	6 652	4.562	21 670
2	10 580	31 550	5.968	28 680	5 533	5 909	2.752	9 668	22 810	6 295	4 295	31 500
3	9 743	22 330	6 997	24.290	5.200	5 521	2 592	19 490	51 730	9 349	3 754	31 660
4	8 556	20 180	18 800	36 230	5 038	5.207	2 454	43 210	38.500	12 630	3.754	18.140
5	8 029	15 540	13 650	38 830	5 312	4 943	2 232	110 800	24 550	8 699	9.905	15 250
6	7 907	12 870	9 528	25 790	5.483	4 646	2 098	35.740	16 190	33 060	13.730	22 070
7	7 779	11 540	8.864	36 080	5.529	4 844	2 589	20.700	12 450	42.950	24 860	36 200
8	7.197	10 620	8.364	39.820	5 127	5.155	2 517	15 720	34 990	37 140	27 810	33.150
9	6 864	9 068	7 061	26 560	4 743	5.115	2 146	15 360	18 760	49 150	71.710	18 680
10	6 760	7 885	6 474	21.650	4.505	5 084	2 086	10 430	12 920	27 740	48.150	14 120
11	6 478	7.514	6 103	80 960	4 269	4.773	2 119	18 460	10 090	31 980	20.780	14.260
12	6 005	7 205	5 776	55.330	4 102	36 880	5 622	45 820	8 790	17 020	12 730	15 780
13	6 069	6 903	5 729	50 240	4 097	14 780	19 790	21 200	7 553	12 320	9 662	54 410
14	5 893	6.605	5 462	48.980	12 460	8 693	9 461	23 090	7 019	10 010	8.877	31 040
15	5 665	6 316	5 238	28.160	36 130	6.719	5.931	38 720	7.905	8 724	9.564	27 000
16	5 300	6 032	5 185	20 070	16 800	5 597	4 355	49 400	17.490	7 866	12 620	21 380
17	5 216	5 788	5 042	15.830	9 933	4 983	4 442	22 630	28 870	7.149	17 790	17 380
18	4 634	5 482	4 776	13 000	7 816	4 333	5 793	15 230	13.940	6 564	11 580	25 440
19	4 145	5 281	4 709	11.380	6 988	4 412	5 735	18 870	15 310	6 160	9 653	22 280
20	4 206	5 247	4 619	9.991	6 594	3 997	9 076	34 290	11 830	5 751	8 614	43 200
21	17 460	5 373	4 469	9 121	6 459	4 222	10 360	28 860	54 660	5 496	7 845	144 200
22	40 960	5.525	5 351	8.574	5 974	5 538	9 356	17 770	74 260	5 500	7 437	86 570
23	27 440	6 465	15 400	7 787	5 630	8 866	12 880	14 380	33 670	5 250	8 119	42 450
24	18 170	11 320	17 970	7.220	8 123	9 491	6.757	53 250	27 420	5.169	13.290	30 860
25	12 160	8 052	12 430	6 766	15 020	6 422	5.911	47 920	16 330	4 930	11 190	26 110
26	10 200	7 543	10 710	6.448	20 740	5 194	29 340	31 640	12.680	4.539	9 297	22 290
27	9 040	6 935	8 487	6.220	14 800	4 459	46 870	18 730	11 990	4 170	7 809	16 770
28	16 760	6 080	7 073	6 134	23 280	4 100	22 170	29.240	9 404	4 008	6 851	13 030
29	67 470		15 360	6 346	12 690	3 561	33 450	18 280	7.868	4.115	6 314	10 620
30	65 620		40 890	6.276	9 178	3 285	26 360	12 940	7 087	3 799	6 419	10 100
31	68 290		18 910		7 413		14 600	11 050		4 203		18.790
Average	15 900	11 260	9 720	24.150	9 385	6 774	10 160	27 830	21 350	12 850	13 970	30 210
Lowest	4 145	5 247	4 469	6 134	4 097	3.285	2 086	9 668	7 019	3 799	3 754	10.100
Highest	68 290	54.160	40 890	80 960	36 130	36 880	46 870	110 800	74 260	49 150	71 710	144 200
Peak flow	110 800	70 430	59 970	128 300	45 120	56 350	118 000	185 000	122 600	94 560	101.500	189 900
Day of peak	29	1	30	11	15	12	26	5	21	6	9	21
Monthly total (million cu m)	42 58	27 25	26 03	62 60	25 14	17.56	27.20	74 55	55 33	34 47	36 20	80 90
Runoff (mm)	56	36	34	82	33	23	36	98	73	45	48	107
Rainfall (mm)	89	14	74	108	90	58	123	173	96	65	90	148

Statistics of monthly data for previous record (Jan 1937 to Dec 1984—incomplete or missing months total 17.7 years)

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Mean flows	Avg	27 860	24 160	21 420	15.180	11 250	7 680	7 644	11 160	13 330	18 300	23 360	27 100
	Low	4 471	2 974	6 741	4 389	2 312	1 546	1 675	0 992	1 420	3 026	5 027	10 230
	(year)	1963	1963	1961	1982	1980	1957	1976	1976	1959	1972	1937	1963
	High	42 880	54 590	53 940	35.240	26 750	18 520	16 440	41 340	33 520	54 000	51 090	62 090
	(year)	1984	1966	1981	1970	1967	1972	1963	1956	1968	1967	1963	1965
Runoff	Avg	98	78	76	52	40	26	27	39	46	65	80	96
	Low	16	9	24	15	8	5	6	4	5	11	17	36
	High	151	174	190	120	94	63	58	146	115	191	174	219
Rainfall	Avg	115	89	81	72	76	74	86	103	102	107	119	114
	Low	32	20	13	8	13	10	20	14	8	32	17	41
	High	248	197	222	147	181	183	185	226	241	229	264	233

Summary statistics

	For 1985		For record preceding 1985		1985 As % of pre-1985
Mean flow (m^3s^{-1})	16 160		17 350		93
Lowest yearly mean			11 420	1975	
Highest yearly mean			23 300	1966	
Lowest monthly mean	6 774	Jun	0.992	Aug 1976	
Highest monthly mean	30 210	Dec	62 090	Dec 1965	
Lowest daily mean	7 086	10 Jul	0 425	23 Jun 1957	
Highest daily mean	144 200	21 Dec	233 600	4 Dec 1960	
Peak	189 900	21 Dec	380 000	3 Jan 1982	
10 %ile	36.600		41 450		88
50 %ile	9 496		9 678		98
95 %ile	4 065		2 162		188
Annual total (million cu m)	509 60		547 50		93
Annual runoff (mm)	672		721		93
Annual rainfall (mm)	1128		1138		99
[1941-70 rainfall average (mm)			1161]		

Factors affecting flow regime

- Reservoir(s) in catchment.
- Abstraction for public water supplies
- Flow reduced by industrial and/or agricultural abstractions
- Augmentation from surface water and/or groundwater

Station description
Broad crested weir. 47.3 m broad, rated by current meter gauging from a cableway 1.5 km upstream of the station. Pre-1/10/65 rating may be less reliable

027025 Rother at Woodhouse Mill 1985

Measuring authority YWA
First year 1961

Grid reference: SK 432857
Level stn. (m OD) 28.72

Catchment area (sq km): 352.2
Max alt. (m OD) 367

Daily mean gauged discharges (cubic metres per second)

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	3.353	8.237	2.854	3.143	2.388	1.774	1.792	1.420	1.539	1.268	1.788	3.305
2	3.199	6.227	2.638	2.716	2.232	1.772	1.600	1.339	1.788	1.222	1.472	4.390
3	3.060	5.212	4.129	2.963	2.111	1.777	1.544	1.326	1.970	1.755	1.330	3.851
4	2.988	4.832	3.396	3.186	2.091	2.426	1.489	4.039	1.730	1.342	1.367	6.026
5	2.806	4.384	2.648	3.135	2.292	4.993	1.493	3.436	1.596	1.240	2.139	10.470
6	2.759	4.083	2.400	3.018	2.057	7.214	1.416	2.008	1.432	7.883	2.196	20.570
7	2.648	3.789	2.517	7.861	2.036	9.558	1.426	1.789	1.395	5.205	2.019	15.090
8	2.524	3.724	2.338	7.441	2.249	4.693	1.428	1.710	1.442	2.910	6.763	7.203
9	2.483	3.463	2.247	4.925	1.968	3.553	1.410	2.357	1.439	3.117	10.450	5.247
10	2.458	3.138	2.213	4.125	2.102	2.933	1.361	1.591	1.413	2.065	7.979	5.053
11	2.373	2.883	2.113	21.780	1.824	3.700	1.412	3.899	1.379	1.732	3.767	5.073
12	2.309	2.799	2.078	11.900	1.892	4.607	1.394	2.464	1.373	1.502	2.856	4.125
13	2.605	2.686	2.087	8.905	2.616	2.926	3.240	1.911	1.326	1.466	2.336	4.823
14	2.527	2.617	2.104	8.186	7.523	2.670	4.276	2.483	1.391	1.435	2.379	4.111
15	2.476	2.382	2.096	5.569	8.376	2.355	1.918	2.250	1.337	1.386	3.764	3.573
16	2.381	2.339	2.144	4.646	4.390	2.251	1.904	1.846	1.380	1.442	3.624	3.250
17	2.291	2.299	1.996	4.040	3.089	2.273	1.688	1.692	1.589	1.410	3.372	3.236
18	2.352	2.273	1.965	3.603	2.690	2.192	1.570	1.764	1.348	1.378	2.629	2.984
19	2.310	2.144	1.923	3.364	2.810	2.058	1.788	2.029	1.317	1.325	2.387	2.873
20	2.293	2.222	1.966	3.135	5.155	2.028	1.657	2.477	1.295	1.336	2.816	3.388
21	23.680	2.188	2.337	3.034	4.205	2.333	1.664	1.987	1.289	1.361	2.803	14.430
22	13.730	2.304	3.862	2.790	3.284	2.738	1.701	1.789	1.319	1.339	2.428	23.040
23	7.196	2.345	6.170	2.606	2.903	2.764	1.497	3.762	1.332	1.345	2.303	9.405
24	7.346	2.316	4.379	2.439	2.700	2.314	1.426	5.128	1.309	1.206	2.358	8.863
25	8.909	2.263	3.381	2.326	2.585	2.041	1.398	2.616	1.302	1.266	2.527	9.112
26	6.254	2.209	2.941	2.351	3.379	1.946	1.419	2.040	1.308	1.262	2.314	7.923
27	5.303	2.156	2.598	2.699	2.738	1.798	1.414	1.833	1.300	1.240	2.273	5.501
28	8.980	2.143	2.450	3.005	2.424	1.771	2.240	1.738	1.266	1.300	2.062	4.504
29	13.570		2.750	2.860	2.109	1.707	2.178	1.648	1.270	1.277	1.834	3.810
30	11.870		2.929	2.555	1.962	1.855	2.095	1.556	1.308	1.256	2.264	3.899
31	10.860		2.991		1.828		1.553	1.478		1.708		5.616
Average	5.480	3.202	2.730	4.810	2.968	2.967	1.755	2.239	1.416	1.838	3.020	6.927
Lowest	2.291	2.143	1.923	2.326	1.824	1.707	1.361	1.326	1.266	1.206	1.330	2.873
Highest	23.680	8.237	6.170	21.780	8.376	9.558	4.276	5.128	1.970	7.883	10.450	23.040
Peak flow	33.930	9.455	7.148	32.740	14.020	13.450	11.410	7.938	2.871	16.220	15.290	42.270
Day of peak	21	1	23	11	14	6	13	4	3	6	9	21
Monthly total (million cu m)	14.68	7.75	7.31	12.47	7.95	7.69	4.70	6.00	3.67	4.92	7.83	18.55
Runoff (mm)	42	22	21	35	23	22	13	17	10	14	22	53
Rainfall (mm)	62	8	46	69	63	78	50	84	16	51	72	87

Statistics of monthly data for previous record (Oct 1961 to Dec 1984—incomplete or missing months total 2.5 years)

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Mean flows	Avg	6.581	7.078	6.635	4.963	3.865	2.901	1.947	1.982	2.233	2.737	4.710	6.119
	Low	1.287	1.424	1.830	1.400	1.569	1.166	0.934	0.760	0.712	0.693	1.023	2.393
	(year)	1963	1963	1976	1976	1976	1976	1976	1976	1964	1972	1964	1971
	High	12.020	22.440	14.330	13.160	10.110	10.840	4.907	3.323	7.786	6.596	8.200	18.140
	(year)	1977	1977	1979	1966	1967	1982	1968	1966	1965	1966	1969	1965
Runoff	Avg	50	49	50	37	29	21	15	15	16	21	35	47
	Low	10	10	14	10	12	9	7	6	5	5	8	18
	High	91	154	109	97	77	80	37	25	57	50	60	138
Rainfall	Avg	69	61	66	58	63	59	55	61	69	59	76	71
	Low	20	18	13	11	15	11	10	6	18	12	33	13
	High	128	180	132	122	157	202	170	101	171	140	150	194

Summary statistics

	For 1985		For record preceding 1985		1985 As % of pre-1985
Mean flow (m^3s^{-1})	3.283		4.298		76
Lowest yearly mean			2.540	1964	
Highest yearly mean			6.364	1966	
Lowest monthly mean	1.416	Sep	0.693	Oct 1972	
Highest monthly mean	6.927	Dec	22.440	Feb 1977	
Lowest daily mean	1.206	24 Oct	0.393	14 Jun 1973	
Highest daily mean	23.680	21 Jan	78.320	29 Dec 1978	
Peak	42.270	21 Dec	105.400	23 Jun 1982	
10 %ile	6.204		9.232		67
50 %ile	2.351		2.633		89
95 %ile	1.314		0.952		138
Annual total (million cu m)	103.50		135.60		76
Annual runoff (mm)	294		385		76
Annual rainfall (mm)	686		767		89
[1941-70 rainfall average (mm)			764]		

Factors affecting flow regime

- Reservoir(s) in catchment.
- Flow influenced by groundwater abstraction and/or recharge
- Abstraction for public water supplies
- Flow reduced by industrial and/or agricultural abstractions.
- Augmentation from effluent returns.

Station description
Velocity-area station rated by current meter gauging from a cableway 35m downstream.

027035 Aire at Kildwick Bridge 1985

Measuring authority: YWA
First year: 1970
Grid reference: SE 013457
Level stn (m OD) 87.32
Catchment area (sq km): 282.3
Max alt (m OD): 594

Daily mean gauged discharges (cubic metres per second)

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	5.122	15.930	2.299	12.530	1.751	2.014	1.018	4.108	7.982	2.415	1.356	8.325
2	4.459	9.820	2.422	6.461	1.560	1.773	0.965	3.790	11.150	2.190	1.352	13.430
3	3.906	8.532	3.755	8.396	1.374	1.663	0.821	8.165	19.130	3.526	1.259	8.933
4	3.613	7.286	3.904	13.540	1.327	1.605	0.762	28.600	13.800	3.035	1.463	6.971
5	3.300	5.879	3.330	12.520	1.594	1.388	0.768	38.220	9.409	2.327	8.919	7.865
6	3.242	4.893	2.668	12.860	1.478	1.367	0.738	16.220	6.484	26.640	7.060	12.010
7	3.111	4.466	2.557	15.550	1.199	1.398	0.669	9.649	11.690	17.520	7.187	17.660
8	2.860	4.000	2.156	15.850	1.135	1.400	0.709	6.678	16.940	15.770	15.350	11.110
9	2.639	3.364	1.920	9.966	1.077	1.680	0.710	5.230	8.379	17.810	32.800	7.503
10	2.464	3.065	1.853	9.667	1.085	1.424	0.671	3.998	6.264	12.650	14.540	6.803
11	2.319	2.791	1.757	37.750	0.986	1.959	0.674	11.870	5.024	10.600	8.155	6.680
12	2.064	2.529	1.665	20.310	0.933	6.912	0.815	12.890	4.129	7.199	5.904	6.669
13	2.161	2.278	1.766	21.690	0.945	2.777	1.150	9.675	3.324	5.713	4.699	24.970
14	2.016	2.141	1.624	19.770	6.435	2.022	1.253	10.460	4.034	4.781	4.315	13.570
15	1.968	2.067	1.522	11.100	10.520	1.649	0.944	13.370	4.488	4.190	4.610	11.360
16	1.958	1.984	1.584	8.284	4.258	1.448	0.857	14.430	5.845	3.738	6.063	9.459
17	1.844	1.885	1.416	6.472	2.932	1.331	0.879	8.751	5.975	3.357	5.438	10.870
18	1.837	1.729	1.364	5.225	2.379	1.261	0.982	7.174	4.828	3.057	4.395	12.890
19	1.721	1.627	1.315	4.290	2.110	1.129	0.983	11.060	4.666	2.799	3.898	11.620
20	1.677	1.832	1.248	3.509	1.899	1.202	1.559	15.510	3.988	2.590	3.499	35.200
21	13.800	2.007	1.222	3.165	1.765	2.091	1.462	10.120	20.620	2.397	3.138	60.890
22	12.390	2.022	1.601	2.697	1.673	2.991	3.266	7.135	16.220	2.205	2.979	54.430
23	6.415	3.056	2.787	2.417	1.921	4.692	2.125	10.160	9.651	2.086	3.078	29.900
24	4.849	2.792	2.934	2.177	3.375	2.342	1.447	17.400	7.687	1.970	2.877	18.160
25	5.907	2.371	2.540	2.012	3.170	1.665	1.223	21.670	5.722	1.857	2.827	14.270
26	5.221	2.356	2.033	1.874	5.710	1.475	20.990	12.390	4.768	1.761	2.826	9.915
27	4.154	2.146	1.543	1.867	8.207	1.378	15.170	8.199	4.092	1.687	2.531	7.417
28	16.680	2.049	1.271	1.983	8.816	1.183	13.580	10.020	3.502	1.666	2.251	5.742
29	35.220		3.973	2.081	4.221	1.054	16.420	6.703	3.083	1.557	2.153	4.704
30	24.470		7.587	2.039	3.069	1.046	11.000	5.232	2.742	1.465	3.720	4.522
31	21.710		4.501		2.410		5.910	4.867		1.380		8.487
Average	6.616	3.818	2.391	9.268	2.946	1.911	3.565	11.410	7.854	5.546	5.688	14.910
Lowest	1.677	1.627	1.222	1.867	0.933	1.046	0.669	3.790	2.742	1.380	1.259	4.522
Highest	35.220	15.930	7.587	37.750	10.520	6.912	20.990	38.220	20.620	26.640	32.800	60.890
Peak flow	49.400	20.130	10.570	53.780	22.580	11.970	50.690	57.670	36.050	48.550	47.890	70.760
Day of peak	29	1	31	11	27	12	26	4	21	6	9	22
Monthly total (million cu m)	17.72	9.24	6.40	24.02	7.89	4.95	9.55	30.56	20.36	14.86	14.74	39.95
Runoff (mm)	63	33	23	85	28	18	34	108	72	53	52	142
Rainfall (mm)	77	14	62	99	75	64	113	171	97	69	81	168

Statistics of monthly data for previous record (Dec 1968 to Dec 1984—incomplete or missing months total 0.2 years)

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Mean flows	Avg	10.830	8.285	7.721	4.315	2.929	2.469	1.565	2.526	3.614	7.082	10.730	10.330
	Low	4.463	4.737	2.652	0.922	0.611	0.605	0.298	0.289	1.147	0.788	3.583	3.175
	(year)	1973	1982	1975	1974	1974	1970	1984	1976	1971	1972	1975	1971
	High	18.580	13.220	22.520	9.586	8.174	6.416	5.927	7.020	10.360	17.570	16.540	20.820
	(year)	1984	1984	1981	1970	1983	1982	1973	1980	1974	1981	1984	1979
Runoff	Avg	103	72	73	40	28	23	15	24	33	67	99	98
	Low	42	41	25	8	6	6	3	3	11	7	33	30
	High	176	117	214	88	78	59	56	67	95	167	152	198
Rainfall	Avg	124	77	104	65	75	78	71	88	117	113	135	117
	Low	67	35	44	3	10	23	17	17	27	37	55	42
	High	222	139	233	135	142	155	151	151	250	213	187	238

Summary statistics

	For 1985		For record preceding 1985		1985 As % of pre-1985
Mean flow (m^3s^{-1})	6.350		6.025		105
Lowest yearly mean			3.655	1971	
Highest yearly mean			8.060	1981	
Lowest monthly mean	1.911	Jun	0.289	Aug 1976	
Highest monthly mean	14.910	Dec	22.520	Mar 1981	
Lowest daily mean	0.669	7 Jul	0.180	23 Aug 1976	
Highest daily mean	60.890	21 Dec	79.900	27 Oct 1980	
Peak	70.760	22 Dec	98.130	5 Dec 1972	
10 %ile	15.060		15.250		99
50 %ile	3.410		3.038		112
95 %ile	0.989		0.504		196
Annual total (million cu m)	200.30		190.20		105
Annual runoff (mm)	709		674		105
Annual rainfall (mm)	1090		1164		94
[1941-70 rainfall average (mm)			1126]		

Factors affecting flow regime

- Reservoir(s) in catchment.

Station description

Velocity-area station with bridge invert as control. Current meter gauging from cableway downstream. Low flow control removed in 1969. New rating used from 1970

027041 Derwent at Buttercrambe 1985

Measuring authority: YWA
First year: 1973
Grid reference: SE 731587
Level stn. (m OD) 9.50
Catchment area (sq km): 1586.0
Max alt. (m OD): 454

Daily mean gauged discharges (cubic metres per second)

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	16.700	69.270	12.130	19.100	14.390	10.300	7.777	9.664	8.999	6.366	8.526	32.650
2	25.550	64.120	12.340	18.030	13.930	9.955	7.638	8.324	9.020	6.225	8.553	31.250
3	31.780	44.680	12.900	17.910	13.390	9.656	7.496	7.918	10.370	6.493	8.074	27.990
4	38.850	33.490	16.340	25.280	13.060	9.434	7.210	7.822	10.380	6.258	7.232	22.200
5	34.520	28.550	13.050	22.110	12.960	9.559	6.997	14.640	9.407	6.192	10.590	22.600
6	37.950	25.750	11.900	20.530	12.730	9.535	6.910	20.330	8.965	7.655	12.790	27.240
7	35.250	23.680	12.140	20.610	12.200	9.459	6.706	16.540	8.642	18.830	9.828	29.300
8	25.880	22.360	11.640	33.430	12.600	9.165	6.631	12.560	12.620	14.320	11.190	23.420
9	22.620	20.560	11.180	26.530	15.250	9.453	6.744	10.440	13.130	16.510	26.570	19.800
10	23.370	19.220	11.180	23.080	14.170	10.070	6.624	9.267	10.340	13.080	25.910	18.100
11	24.300	18.350	11.260	48.990	12.760	9.790	6.554	8.955	9.031	10.110	18.070	19.330
12	21.230	17.480	10.890	74.730	12.240	11.890	6.447	11.750	8.530	8.786	13.530	18.970
13	20.550	16.660	10.820	62.980	12.190	17.180	6.515	10.130	8.176	8.150	13.980	18.720
14	19.670	16.060	10.600	48.950	16.760	14.060	7.174	9.296	7.885	7.876	14.340	20.030
15	21.450	14.830	10.470	52.250	21.600	11.350	7.250	12.050	7.884	7.621	16.180	17.840
16	20.650	14.630	11.020	37.150	16.380	10.190	6.635	11.510	7.742	7.470	22.390	16.380
17	19.470	14.340	11.270	28.560	13.980	9.463	6.478	10.490	7.645	7.363	23.820	18.230
18	18.590	13.890	11.350	24.930	14.200	9.108	6.447	9.758	7.361	7.296	17.740	23.950
19	17.970	13.170	11.140	22.910	18.460	8.939	6.549	9.351	7.347	7.224	15.220	22.130
20	17.460	13.140	11.120	21.200	15.790	8.739	6.478	9.752	7.327	7.213	16.650	21.280
21	49.850	13.060	11.170	22.160	14.200	8.697	6.350	10.630	7.409	7.074	18.750	30.070
22	74.920	12.960	11.610	21.070	13.560	9.483	6.405	9.819	7.883	6.851	22.550	42.640
23	58.510	13.430	28.610	18.830	13.150	10.200	6.541	9.157	7.899	6.721	27.330	32.870
24	38.500	13.910	30.130	17.670	14.090	9.632	6.207	11.680	7.290	6.652	28.600	25.390
25	28.060	13.150	21.110	16.810	14.780	8.765	5.784	12.760	6.905	6.538	23.200	25.610
26	24.530	12.560	17.390	16.240	15.380	8.310	5.791	16.990	6.737	6.501	23.300	26.250
27	22.250	12.070	15.440	15.990	15.260	8.321	8.868	12.840	6.638	6.455	22.200	22.130
28	27.290	11.870	14.420	15.390	13.460	8.424	9.739	10.850	6.538	6.376	18.210	19.680
29	34.230		14.210	15.430	12.060	8.097	12.640	9.764	6.428	6.358	15.890	18.050
30	42.060		19.160	15.290	11.210	7.858	14.780	9.309	6.397	6.462	16.010	17.420
31	59.420		17.810		10.710		13.030	8.987		6.588		27.820
Average	30.760	21.690	14.060	27.470	14.090	9.836	7.529	11.080	8.364	8.181	17.240	23.850
Lowest	16.700	11.870	10.470	15.290	10.710	7.858	5.784	7.822	6.397	6.192	7.232	16.380
Highest	74.920	69.270	30.130	74.730	21.600	17.180	14.780	20.330	13.130	18.830	28.600	42.640
Peak flow	76.410	71.210	35.980	76.950	23.580	19.220	15.260	21.680	15.440	22.870	32.110	45.370
Day of peak	22	2	23	12	15	13	30	6	8	7	9	22
Monthly total (million cu m)	82.38	52.47	37.65	71.21	37.75	25.50	20.17	29.66	21.68	21.91	44.69	63.88
Runoff (mm)	52	33	24	45	24	16	13	19	14	14	28	40
Rainfall (mm)	103	5	64	81	67	60	79	94	40	43	102	73

Statistics of monthly data for previous record (Oct 1973 to Dec 1984)

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Mean flows	Avg.	30.670	28.880	28.180	18.520	15.370	10.720	7.644	7.746	8.025	14.600	15.940	25.910
	Low	16.780	15.260	8.799	6.927	7.852	5.342	3.884	3.215	4.730	5.554	7.404	13.460
	(year)	1983	1982	1976	1976	1982	1974	1976	1976	1975	1975	1978	1984
	High	48.190	49.290	56.110	33.670	29.840	21.260	11.810	15.440	14.710	36.810	25.220	42.740
	(year)	1977	1978	1979	1979	1979	1979	1981	1980	1976	1976	1980	1978
Runoff	Avg	52	45	48	30	26	18	13	13	13	25	26	44
	Low	28	23	15	11	13	9	7	5	8	9	12	23
	High	81	75	95	55	50	35	20	26	24	62	41	72
Rainfall	Avg	79	50	73	45	61	55	58	62	81	80	66	86
	Low	34	18	6	11	22	11	18	10	21	21	28	36
	High	132	101	143	102	142	149	123	126	192	158	111	180

Summary statistics

	For 1985		For record preceding 1985		1985 As % of pre-1985
Mean flow (m^3s^{-1})	16.140		17.650		91
Lowest yearly mean			11.720	1975	
Highest yearly mean			25.320	1979	
Lowest monthly mean	7.529	Jul	3.215	Aug 1976	
Highest monthly mean	30.760	Jan	56.110	Mar 1979	
Lowest daily mean	5.784	25 Jul	2.697	23 Aug 1976	
Highest daily mean	74.920	22 Jan	121.400	29 Dec 1978	
Peak	76.950	12 Apr	124.800	5 Jan 1982	
10 %ile	27.560		35.930		77
50 %ile	12.970		12.980		100
95 %ile	6.499		4.836		134
Annual total (million cu m)	509.00		557.00		91
Annual runoff (mm)	321		351		91
Annual rainfall (mm)	811		796		102
(1941-70 rainfall average (mm)			784)		

Factors affecting flow regime

- Abstraction for public water supplies

Station description

Crump weir 19.987 m broad. Catchment area includes 33.2 sq km 027033 Sea Cut at Scarborough, but flow data do not include flood diversions

027053 Nidd at Birstwith 1985

Measuring authority: YWA
First year: 1975
Grid reference: SE 230603
Level stn. (m OD) 67.40
Catchment area (sq km): 217.6
Max alt. (m OD): 705

Daily mean gauged discharges (cubic metres per second)

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	2 948	14.450	1.644	4 114	1.823	1 857	1.338	1 341	2.992	2.182	2 351	4 380
2	2.952	8 077	1 720	2 488	1 759	1.799	1.296	1 318	4.131	2.152	2.233	5 742
3	2.879	6 917	2.490	4 082	1.738	1.759	1.091	1.768	9.055	2.323	2.197	5.760
4	2 833	6.501	2.100	5.324	1.730	1.743	1 068	14.710	6.984	2.201	2.279	5.718
5	2.748	6 040	1 709	4 159	2.474	1.721	1 068	14 380	6.197	2.128	3 317	4 181
6	2.957	5.718	1.647	3.969	2.150	1.751	1 058	6.859	3.042	13.070	3.147	5.144
7	2.832	5 581	1.851	10 240	1.813	1.856	1 037	6 112	2.569	8.172	5 455	6 618
8	2.693	5 404	1 608	10.320	1.810	1.739	1 049	3 002	2.444	9 134	9.720	6 890
9	2.627	3 497	1.516	7.756	1.743	1.734	1 034	2.260	5.566	8 457	23.160	6.433
10	2.606	2.940	1 479	4 325	1.684	1.653	1 033	1 879	5.743	5.970	13 600	6 533
11	2.546	2 838	1 435	33 840	1.644	1 843	1.078	4 592	2.610	4.491	10 990	4 143
12	2.501	2.735	1 401	13.470	1.605	2.147	1 081	5.468	2.278	3 322	6.279	3 807
13	2.602	2 659	1 415	18.630	1.717	1.753	1.132	4 829	1.791	2.843	3.841	8 395
14	2.524	2 588	1.355	13.140	10 770	1 667	1 108	8 330	1.756	2.670	3.288	7 004
15	2.495	2.565	1 320	7.254	10 800	1.599	1 041	10.480	1.741	2.597	3.302	6 693
16	2.492	2 489	1 400	5.700	5.381	1.553	1.046	9.624	1.929	2.543	3 673	4 223
17	2.460	2 420	1 389	3.793	3.116	1 528	1 062	5.277	5.342	2 465	3.223	3.863
18	2 413	2 368	1 392	2.861	2.358	1 498	1.037	4 836	2.519	2.394	2 953	4 382
19	2.378	1 774	1 377	2.918	2.246	1 477	1 072	4.864	1 805	2 360	2 881	4 977
20	2.342	1.709	1 353	2 675	2.474	1 476	1 129	6.596	1.658	2 309	2.780	9 349
21	7 464	1 701	1 341	2 471	2.233	1 634	1 029	5 014	4 654	2 273	2.708	48.420
22	5.925	1.593	2 808	2.271	2 060	1 677	1 262	4 448	10.150	2.254	2 675	27 280
23	3.848	1 746	4.603	2 136	2 083	1 841	1.061	7.391	7 156	2.240	3 052	14 050
24	3.361	1 699	2 613	2 065	3 373	1 547	1 008	8 733	6 458	2 218	2 811	12.300
25	3.455	1.614	2.158	2 009	5 002	1.471	0 992	6 719	6.100	2.210	2 746	8 147
26	3.157	1 572	1 881	1 988	3 895	1 397	4 184	5 056	2.788	2 191	2 621	9 606
27	2 949	1 498	1.713	1 946	3 492	1.386	1 823	4 558	2.392	2.179	2 487	9 027
28	5 941	1 496	1 698	1 938	3 603	1 379	2.475	4 609	2 309	2 154	2.422	5 949
29	17 940		3 202	2 022	2 472	1 340	3 777	4 301	2.266	2 150	2 380	5 243
30	13.550		3.058	1 862	2 084	1.327	2 345	4.129	2.238	2.142	3 298	3 171
31	16 980		2.703		1 927		1.569	2 924		2 558		3 616
Average	4 432	3 650	1 915	6 059	3 002	1 638	1 399	5 690	3.955	3.495	4 596	8 421
Lowest	2 342	1 496	1.320	1 862	1 605	1 327	0 992	1.318	1 658	2.128	2 197	3 171
Highest	17 940	14 450	4 603	33 840	10 800	2 147	4.184	14.710	10 150	13.070	23.160	48 420
Peak flow	28.320	18 710	6 714	52 070	36 100	2.560	13.210	48 140	14.700	27 610	37 550	91.430
Day of peak	29	1	31	11	14	11	26	4	22	6	9	21
Monthly total (million cu m)	11 87	8.83	5 13	15 70	8.04	4 25	3 75	15 24	10 25	9 36	11 91	22.55
Runoff (mm)	55	41	24	72	37	20	17	70	47	43	55	104
Rainfall (mm)	111	16	90	120	109	60	114	192	87	77	109	150

Statistics of monthly data for previous record (Apr 1975 to Dec 1984—incomplete or missing months total 0.1 years)

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Mean flows	Avg.	10.110	8.517	9 243	3 463	3 067	1.982	1 205	1 436	2.028	5 270	7 542	10 400
	Low	6.927	3 215	2.497	1.681	1 064	1 015	0.815	0 655	1 263	1 508	1.893	3 612
	(year)	1980	1982	1976	1984	1984	1975	1984	1984	1977	1978	1975	1975
	High	15.960	16 010	21.140	7.247	7 061	3 131	1 556	2 493	3 920	15.120	12 830	20 280
	(year)	1984	1984	1979	1979	1983	1982	1982	1979	1976	1976	1984	1979
Runoff:	Avg.	124	96	114	41	38	24	15	18	24	65	90	128
	Low	85	36	31	20	13	12	10	8	15	19	23	44
	High	196	184	260	86	87	37	19	31	47	186	153	250
Rainfall (1976-1984)	Avg.	149	95	138	61	85	85	46	92	132	138	143	164
	Low	106	57	75	11	27	16	18	22	80	36	62	80
	High	250	182	243	144	149	185	68	147	253	223	208	258

Summary statistics

	For 1985		For record preceding 1985		1985 As % of pre-1985
Mean flow (m^3s^{-1})	4 024		5.349		75
Lowest yearly mean			4.915	1978	
Highest yearly mean			7.148	1979	
Lowest monthly mean	1 399	Jul	0 655	Aug 1984	
Highest monthly mean	8 421	Dec	21 140	Mar 1979	
Lowest daily mean	0 992	25 Jul	0 392	21 Aug 1984	
Highest daily mean	48.420	21 Dec	109 400	28 Dec 1978	
Peak	91 430	21 Dec	204 400	13 Jan 1984	
10 %ile	8 120		13 080		62
50 %ile	2 543		2.677		95
95 %ile	1 086		0 996		109
Annual total (million cu m)	126 90		168.80		75
Annual runoff (mm)	583		776		75
Annual rainfall (mm)	1235		1328		93
[1941-70 rainfall average (mm)			860]		

Factors affecting flow regime

- Reservoir(s) in catchment
- Abstraction for public water supplies.
- Augmentation from surface water and/or groundwater.

Station description
Velocity-area station with natural rock control

028009 Trent at Colwick 1985

Measuring authority: STWA
First year: 1958
Grid reference: SK 620399
Level stn. (m OD): 16.00
Catchment area (sq km): 7486.0
Max alt. (m OD): 636

Daily mean gauged discharges (cubic metres per second)

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	88.490	199.800	88.600	76.160	58.980	49.510	54.200	46.770	42.890	37.980	35.260	65.120
2	79.480	149.400	102.100	72.420	54.020	46.270	50.980	42.270	43.910	32.950	34.570	79.320
3	73.040	117.600	91.280	63.800	51.410	45.650	46.470	40.130	51.610	33.890	34.540	97.890
4	67.890	105.100	104.200	73.580	50.310	57.260	44.830	41.780	54.430	40.590	34.450	90.960
5	63.020	96.690	83.360	97.520	49.610	113.800	42.490	68.010	54.020	35.350	37.080	167.800
6	59.930	89.820	72.330	99.460	50.450	123.000	42.880	62.720	46.920	57.760	47.660	271.900
7	60.870	88.640	80.320	95.490	47.140	231.400	39.880	50.610	40.770	163.800	48.330	338.900
8	57.720	111.200	93.280	193.100	47.120	220.200	42.920	48.620	38.770	105.400	99.580	271.200
9	56.090	101.600	79.480	186.000	45.200	158.500	41.220	45.100	40.430	89.720	187.400	160.600
10	54.990	85.860	71.560	123.400	44.820	106.100	39.610	44.560	40.390	71.210	187.100	118.200
11	53.250	82.710	66.350	174.400	43.980	85.230	35.770	44.170	39.370	55.950	139.500	124.100
12	50.720	80.600	63.120	296.500	43.550	133.100	35.870	82.910	38.760	48.410	95.290	115.200
13	50.670	74.640	61.750	212.200	52.290	119.300	36.860	66.460	37.220	44.560	71.800	140.000
14	51.330	69.930	60.410	196.800	75.470	83.060	47.640	57.270	37.780	41.800	63.350	168.900
15	51.280	64.600	61.230	167.600	120.700	69.300	48.240	57.140	39.720	41.330	80.710	122.900
16	51.150	58.250	60.510	126.600	93.530	60.320	46.620	54.910	37.700	39.820	77.240	101.900
17	49.670	57.750	59.210	106.300	63.600	56.620	46.630	65.350	38.340	39.540	90.940	90.980
18	49.370	57.730	57.350	94.850	55.350	58.320	40.710	55.540	41.520	38.560	75.690	95.360
19	48.330	56.970	57.300	86.140	53.050	57.980	41.830	54.160	38.740	38.390	64.940	90.880
20	47.180	56.340	56.840	79.980	81.200	59.770	49.560	61.830	37.150	37.520	62.250	82.660
21	124.300	65.390	57.640	78.140	123.000	64.750	42.960	58.040	36.650	37.400	63.680	79.420
22	265.000	82.310	70.010	71.390	96.090	70.270	41.870	53.860	35.770	36.710	59.940	211.200
23	200.300	99.180	93.290	63.090	73.420	70.290	45.860	51.430	35.310	36.040	54.650	227.900
24	122.900	104.300	86.600	58.920	70.140	71.570	39.750	88.470	34.890	36.850	54.130	224.500
25	124.300	87.470	81.480	57.240	68.230	65.850	36.460	77.020	34.490	36.700	54.720	261.100
26	128.100	77.120	73.860	55.250	88.710	62.090	35.910	65.890	34.030	34.730	53.260	255.400
27	108.300	74.340	64.580	54.320	86.480	56.740	36.430	55.750	33.980	34.280	52.950	207.400
28	138.100	73.400	60.070	55.530	89.220	51.440	42.820	50.450	33.840	35.280	52.540	134.300
29	209.400		59.630	67.560	72.550	57.330	55.980	49.430	33.090	36.110	50.380	102.100
30	303.200		62.930	62.530	59.420	59.140	71.700	46.770	32.780	35.140	52.050	88.680
31	275.000		66.310		52.630		58.130	45.170		35.750		89.720
Average	102.000	88.170	72.480	108.700	66.500	85.470	44.600	55.890	39.510	47.890	70.530	150.900
Lowest	47.180	56.340	56.840	54.320	43.550	45.650	35.770	40.130	32.780	32.950	34.450	65.120
Highest	303.200	199.800	104.200	296.500	123.000	231.400	71.200	88.470	54.430	163.800	187.400	338.900
Peak flow	320.500	227.900	115.600	305.400	135.700	244.400	80.420	113.000	61.410	186.300	209.100	342.000
Day of peak	30	1	1	12	15	7	30	24	3	7	9	7
Monthly total (million cu m)	273.30	213.30	194.10	280.50	178.10	221.50	119.50	149.70	102.40	128.30	182.80	404.00
Runoff (mm)	37	28	26	37	24	30	16	20	14	17	24	54
Rainfall (mm)	57	25	46	69	71	101	59	79	24	45	78	97

Statistics of monthly data for previous record (Oct 1958 to Dec 1984)

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Mean flows	Avg	139.600	136.100	112.700	89.150	73.080	53.770	44.840	46.550	51.060	66.980	90.190	123.600
	Low	52.910	49.980	47.180	35.240	32.250	24.690	19.450	18.450	23.080	25.270	34.170	46.260
	(year)	1963	1976	1976	1976	1976	1976	1976	1976	1959	1959	1975	1975
	High	210.900	384.000	227.600	179.500	175.100	87.220	104.100	76.500	121.100	187.000	231.700	351.600
	(year)	1959	1977	1981	1966	1969	1982	1968	1966	1965	1960	1960	1965
Runoff	Avg	50	44	40	31	26	19	16	17	18	24	31	44
	Low	19	17	17	12	12	9	7	7	8	9	12	17
	High	75	124	81	62	63	30	37	27	42	67	80	126
Rainfall	Avg	73	55	60	57	61	59	56	70	70	64	74	77
	Low	23	8	13	9	18	14	18	21	3	12	38	15
	High	138	175	116	116	144	148	114	120	149	141	145	173

Summary statistics

	For 1985		For record preceding 1985		1985 As % of pre-1985
Mean flow (m^3s^{-1})	77.610		85.430		91
Lowest yearly mean			47.020	1976	
Highest yearly mean			124.000	1966	
Lowest monthly mean	39.510	Sep	18.450	Aug 1976	
Highest monthly mean	150.900	Dec	384.000	Feb 1977	
Lowest daily mean	32.780	30 Sep	14.700	23 Aug 1976	
Highest daily mean	338.900	7 Dec	854.900	26 Feb 1977	
Peak	342.000	7 Dec	956.700	25 Feb 1977	
10 %ile	133.300		169.000		79
50 %ile	59.900		60.540		99
95 %ile	35.300		28.390		124
Annual total (million cu m)	2448.00		2696.00		91
Annual runoff (mm)	327		360		91
Annual rainfall (mm)	751		776		97
(1941-70 rainfall average (mm)			776)		

Factors affecting flow regime

- Reservoir(s) in catchment.
- Flow influenced by groundwater abstraction and/or recharge.
- Abstraction for public water supplies
- Flow reduced by industrial and/or agricultural abstractions.
- Augmentation from surface water and/or groundwater
- Augmentation from effluent returns

Station description
Velocity-area station

028010 Derwent at Longbridge Weir 1985

Measuring authority: STWA
First year: 1935

Grid reference: SK 356363
Level stn. (m OD) 44.40

Catchment area (sq km): 1054.0
Max alt. (m OD): 636

Daily mean gauged discharges (cubic metres per second)

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	14.320	41.530	11.410	13.270	11.200	8.969	8.357	7.829	10.220	7.395	6.673	11.490
2	13.710	31.940	11.280	12.310	10.710	8.592	7.978	7.613	11.030	7.359	6.465	14.390
3	13.020	25.910	14.080	12.470	10.160	8.263	7.787	7.650	11.310	7.883	6.249	13.490
4	12.490	23.620	12.950	14.290	10.030	10.050	7.596	9.057	11.110	6.140	6.231	17.480
5	12.010	20.640	11.290	14.800	10.280	12.680	7.494	10.780	11.050	5.836	7.370	33.470
6	11.920	18.780	10.530	14.930	9.846	18.140	7.297	8.999	10.090	26.470	8.831	54.050
7	11.170	17.650	11.070	24.570	9.066	21.700	7.244	8.528	9.613	20.570	9.174	46.200
8	10.750	17.280	10.630	32.130	8.794	12.600	7.146	8.361	9.556	12.470	19.340	30.730
9	10.480	16.030	10.090	24.440	8.555	11.100	7.093	8.595	9.714	15.400	37.050	24.000
10	10.220	14.590	9.883	20.580	8.460	10.300	7.056	7.917	9.236	12.730	26.970	21.200
11	9.830	13.830	9.556	54.890	8.237	12.760	7.389	10.770	9.064	10.750	17.780	20.980
12	9.551	13.380	9.310	45.000	8.330	18.180	7.068	10.780	8.890	9.859	15.110	18.290
13	9.753	12.790	9.139	39.530	9.397	12.930	7.983	9.419	8.689	9.338	12.600	25.830
14	9.439	12.250	9.165	49.620	14.940	11.330	11.210	9.462	8.867	8.912	11.740	21.430
15	9.347	11.520	9.230	40.290	21.680	10.530	8.176	9.798	8.670	8.473	13.160	18.610
16	9.283	10.940	9.127	32.620	13.060	9.912	8.090	11.180	8.824	8.155	12.420	17.080
17	9.143	10.770	8.914	28.780	10.330	9.603	7.709	10.270	10.110	7.996	12.840	16.230
18	9.031	10.470	8.771	26.070	9.349	9.434	7.603	9.580	9.957	7.772	11.130	15.970
19	8.707	10.140	8.798	24.210	9.765	9.394	7.906	9.795	9.503	7.491	10.790	14.640
20	8.521	10.200	8.684	22.650	17.820	9.355	7.993	10.790	9.145	7.394	11.840	15.580
21	40.300	10.620	8.783	21.850	16.700	10.170	7.960	10.350	8.851	7.256	11.430	26.230
22	27.480	10.820	10.580	17.530	13.010	11.100	8.042	9.711	8.754	6.974	10.450	50.850
23	18.210	11.280	12.560	14.210	11.770	11.060	7.435	14.050	8.392	6.921	10.150	33.750
24	18.520	10.710	11.860	12.930	11.340	10.130	7.238	20.950	8.274	7.005	10.260	31.930
25	27.260	10.380	10.830	12.480	11.300	9.303	7.019	15.360	8.198	6.696	10.110	31.320
26	21.960	10.060	10.030	11.900	13.410	8.864	7.124	14.630	8.162	6.682	9.642	28.880
27	18.480	9.931	9.440	11.950	11.630	8.494	7.227	13.130	8.124	6.561	9.582	22.660
28	35.480	9.788	9.407	12.240	11.390	8.444	9.015	12.540	7.514	6.457	8.931	19.370
29	46.830		10.330	12.210	10.560	8.179	9.157	11.930	7.483	6.495	8.326	17.660
30	48.860		11.660	11.760	9.485	8.532	8.912	10.850	7.533	6.401	9.102	16.390
31	46.470		11.440		9.261		8.236	10.450		6.393		19.410
Average	18.150	15.280	10.350	22.880	11.290	11.000	7.856	10.680	9.198	9.104	12.060	24.180
Lowest	8.521	9.788	8.684	11.760	8.237	8.179	7.019	7.613	7.483	5.836	6.231	11.490
Highest	48.860	41.530	14.080	54.890	21.680	21.700	11.210	20.950	11.310	26.470	37.050	54.050
Peak flow	57.730	44.890	16.700	73.230	27.380	28.960	14.020	26.060	12.570	51.140	51.140	79.760
Day of peak	29	1	3	11	15	7	14	24	5	6	9	6
Monthly total (million cu m)	48.60	36.97	27.72	59.31	30.23	28.52	21.04	28.61	23.84	24.39	31.25	64.76
Runoff (mm)	46	35	26	56	29	27	20	27	23	23	30	61
Rainfall (mm)	85	16	59	100	74	100	68	115	42	69	91	132

Statistics of monthly data for previous record (Jan 1936 to Dec 1984—incomplete or missing months total 0.5 years)

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Mean flows	Avg.	29.650	29.250	22.820	17.480	12.890	10.220	8.821	9.183	10.670	13.720	22.130	26.220
	Low	9.751	8.086	9.110	7.677	6.284	4.806	4.211	3.648	3.957	4.156	4.302	8.480
	(year)	1963	1963	1976	1976	1976	1976	1976	1976	1959	1959	1975	1975
	High	67.000	76.780	69.530	39.590	26.410	18.010	28.660	33.840	32.940	35.130	54.320	88.690
	(year)	1939	1977	1947	1966	1967	1969	1958	1956	1946	1960	1940	1965
Runoff	Avg	75	68	58	43	33	25	22	23	26	35	54	67
	Low	25	19	23	19	16	12	11	9	10	11	11	22
	High	170	176	177	97	67	44	73	86	81	89	134	225
Rainfall (1935-1984)	Avg	104	80	75	64	70	69	77	83	84	89	107	100
	Low	33	8	16	8	15	15	16	10	3	17	16	20
	High	215	236	185	132	163	188	158	185	199	178	232	246

Summary statistics

	For 1985		For record preceding 1985		1985 As % of pre-1985
Mean flow (m^3s^{-1})	13.480		17.700		76
Lowest yearly mean			9.625	1976	
Highest yearly mean			25.200	1966	
Lowest monthly mean	7.856	Jul	3.648	Aug 1976	
Highest monthly mean	24.180	Dec	88.690	Dec 1965	
Lowest daily mean	5.836	5 Oct	1.819	30 Aug 1952	
Highest daily mean	54.890	11 Apr	334.200	10 Dec 1965	
Peak	79.760	6 Dec			
10 %ile	24.070		36.160		67
50 %ile	10.460		12.070		87
95 %ile	7.059		4.993		141
Annual total (million cu m)	425.10		558.60		76
Annual runoff (mm)	403		530		76
Annual rainfall (mm)	951		1002		95
1941-70 rainfall average (mm)			1020		

Factors affecting flow regime

- Reservoir(s) in catchment
- Flow influenced by groundwater abstraction and/or recharge
- Abstraction for public water supplies
- Flow reduced by industrial and/or agricultural abstractions
- Augmentation from surface water and/or groundwater.
- Augmentation from effluent returns.

Station description

Velocity-area station with a broad crested horseshoe weir as control

030001 Witham at Claypole Mill 1985

Measuring authority: AWA
First year: 1959

Grid reference: SK 842480
Level stn (m OD) 16 90

Catchment area (sq km): 297.9
Max alt. (m OD): 158

Daily mean gauged discharges (cubic metres per second)

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	1 963	3 876	1 973	2 988	1 703	2 051	1 864	0 873	0 640	0 622	0 664	0 791
2	1 810	3 236	2 131	2 633	1 614	1 890	1 678	0 847	0 645	0 530	0 653	0 929
3	1.680	2 860	2 033	2 497	1 628	1 846	1 384	0.766	0 726	0 605	0.626	1.036
4	1 549	2 768	1.988	2 365	1 621	1 933	1.327	0 930	0 636	0 626	0 658	1 026
5	1.503	2 685	1 760	2 277	1 592	3 416	1 307	1.067	0 677	0 550	0.646	2.744
6	1.521	2.554	1 793	2 232	1.561	3 781	1 365	0 879	0 658	0 695	0.632	6.121
7	1 428	2 438	1.864	2.500	1.532	10 850	1.319	0.964	0 756	1.121	0.637	0 475
8	1.429	2.510	1 843	2 460	1.593	7 436	1 230	0 791	0 813	0 651	1.531	2 690
9	1 363	2 343	1 824	2 484	1 549	4.884	1.251	0.746	0.723	0.766	1 017	1.999
10	1.294	2.070	1 734	2 287	1 489	4 040	1 267	0 759	0 767	0 769	1.169	1.521
11	1 313	2.110	1 717	5 261	1 480	3 532	1 149	0 690	0 725	0 726	0 795	1 509
12	1.284	2.193	1 683	7 730	1.450	3.405	1 233	0.713	0.702	0.592	0 740	1 471
13	1 309	2 086	1 645	4 350	1 613	2 964	1 194	0 750	0 724	0 533	0 703	1.392
14	1.314	1.941	1 662	3 424	3.016	2.862	1 201	0.780	0.770	0 502	0 680	1 471
15	1 315	1 868	1 655	2 840	3 999	2 817	1 205	0 791	0 746	0 523	0 863	1 432
16	1.304	1 818	1 619	2 547	2 378	2 583	1 394	0 810	0 738	0 566	0.778	1.317
17	1.270	1.747	1.971	2 468	1.807	2.466	1 271	1 171	0.726	0 565	0.709	1.281
18	1.306	1 736	2 075	2 432	1.948	2 480	1.160	0 769	0 707	0 520	0.660	1 192
19	1.257	1.719	2.608	2 340	1 976	2 416	1.049	0 814	0 694	0 514	0.691	1.176
20	1.241	1.688	3 408	2.234	3 508	2 348	1 026	0 885	0 719	0 492	0.947	1.159
21	8.754	1 823	4 948	2.165	5 778	2 472	1 048	0 887	0.747	0 459	0.869	0.941
22	8.907	1.887	9 731	2 117	3.338	2 453	0.969	0 849	0 689	0.459	0 875	1.434
23	3 875	2.158	8.200	2 028	2 794	2 406	0 914	0.794	0.532	0 484	0.855	1.462
24	3 091	2.318	5.194	1.918	2.741	2.277	0.808	0.974	0 577	0 496	0 997	5 110
25	3 109	2 065	5 211	1.917	2 356	2.519	0 800	0 806	0 575	0 628	0.970	5.607
26	2 782	1.792	4 136	1 887	3 703	3 158	0 830	0 725	0 570	0 607	0.896	4.730
27	2.522	1.769	3 441	1 879	3.785	2.339	0 937	0 659	0.594	0 574	0 837	3 000
28	2 970	1 679	3.185	1 989	4.292	2.143	0 873	0 677	0.595	0 599	0 756	2 246
29	5.702		3 117	1 880	2 833	2.268	1 104	0 667	0 568	0 626	0 721	1 797
30	7 496		2.969	1.916	2.416	2.193	1.134	0 671	0 590	0 640	0 783	1 636
31	4 783		2.846		2.157		1 035	0.662		0 627		1.484
Average	2 659	2.205	2 967	2.668	2 427	3.141	1.172	0 812	0 678	0 602	0.812	2.006
Lowest	1.241	1.679	1 619	1.879	1 450	1.846	0 800	0 659	0 532	0 459	0.626	0.475
Highest	8.907	3.876	9.731	7 730	5.778	10.850	1 864	1.171	0 813	1 121	1 531	6 121
Peak flow	12.660	4.206	10 570	9 630	7.256	12.250	2 391	1 655	0 900	2 046	2.280	8 070
Day of peak	22	1	22	12	21	7	1	17	8	6	8	6
Monthly total (million cu m)	7.12	5 33	7 95	6 92	6 50	8 14	3 14	2.17	1.76	1.61	2 10	5 37
Runoff (mm)	24	18	27	23	22	27	11	7	6	5	7	18
Rainfall (mm)	49	12	52	47	79	93	38	56	16	23	60	76

Statistics of monthly data for previous record (May 1959 to Dec 1984)

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Mean flows	Avg	2 813	3 309	2 973	2 235	1.720	1.046	0 766	0 785	0 727	0 930	1 440	2 158
	Low	0 673	0.491	0 453	0 364	0 311	0 184	0 062	0 136	0 232	0 218	0.278	0 311
	(year)	1965	1976	1976	1978	1978	1976	1976	1976	1959	1959	1959	1964
	High	5.527	10 690	6 995	5 748	4 651	2 904	2 119	2 376	2 886	3 906	6.526	7 879
	(year)	1961	1977	1979	1979	1983	1983	1968	1980	1968	1960	1960	1965
Runoff	Avg	25	27	27	19	15	9	7	7	6	8	13	19
	Low	6	4	4	3	3	2	1	1	2	2	2	3
	High	50	87	63	50	42	25	19	21	25	35	57	71
Rainfall	Avg	54	41	49	49	51	51	51	62	53	49	57	56
	Low	20	3	8	10	11	3	9	5	3	5	24	13
	High	117	140	92	103	130	148	132	127	127	137	115	142

Summary statistics

	For 1985		For record preceding 1985		1985 As % of pre-1985
Mean flow (m^3s^{-1})	1 843		1 734		106
Lowest yearly mean			0.594	1976	
Highest yearly mean			2 807	1979	
Lowest monthly mean	0 602	Oct	0 062	Jul 1976	
Highest monthly mean	3 141	Jun	10.690	Feb 1977	
Lowest daily mean	0 459	21 Oct	0 021	24 Jul 1976	
Highest daily mean	10 850	7 Jun	31.600	11 Feb 1977	
Peak	12.660	22 Jan	37.540	11 Feb 1977	
10 %ile	3 363		3.813		88
50 %ile	1.481		1 008		147
95 %ile	0 574		0 330		174
Annual total (million cu m)	58.12		54.72		106
Annual runoff (mm)	195		184		106
Annual rainfall (mm)	601		623		96
[1941-70 rainfall average (mm)			622]		

Factors affecting flow regime

- Flow influenced by groundwater abstraction and/or recharge.
- Abstraction for public water supplies.
- Flow reduced by industrial and/or agricultural abstractions.
- Augmentation from surface water and/or groundwater.

Station description
Compound broad crested weir. Range 0.03-42.9 cu m/s

032001 Nene at Orton 1985

Measuring authority: AWA
First year: 1939

Grid reference TL 166972
Level stn. (m OD) 3.35

Catchment area (sq km): 1634.3
Max alt. (m OD): 224

Daily mean gauged discharges (cubic metres per second)

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	15.380	30 500	13.660	11 970	3.178	3 716	5.603	5 066	3.327	3 032	2 072	1.981
2	12.350	16.580	16.630	13.740	4.271	5 999	5.554	5 402	4.707	3 037	2.022	5 698
3	12.280	16.070	16 210	7 644	4.239	3 290	5 099	4 869	3 261	3.204	1.926	6.768
4	11.000	12.840	17.020	3.782	4.237	3 446	4.998	4 808	3.540	3.340	1.881	8 420
5	9.376	12.790	14 620	6.758	5.445	4 479	5.002	8 187	4.160	3 421	2.043	17.170
6	7.493	13 510	11.450	5.766	2 885	10 070	4.658	7.985	3.616	4.293	2.107	36 470
7	8 124	12.240	9.704	4.745	3.721	33 890	4.595	5.899	2.900	6.228	2.110	37 610
8	9 562	12.280	10.380	9 065	3.852	36 890	4 392	2.553	2.693	7 072	2.797	34 810
9	8 396	12.110	9.307	17 460	3 907	29 110	4 236	3 620	2 160	3.744	5 701	28.390
10	6 585	11 900	8.720	12.500	3 823	10 960	4 276	3.369	2.112	2.969	3 390	12 040
11	5 793	11 820	8 723	30 680	3.721	13.070	3 825	3 160	2 253	2 917	6 394	14.510
12	5 071	11 840	8 549	30 660	3 813	8 866	4 161	2 856	2 486	3.077	3 398	13 670
13	4.895	12.700	7.318	13.990	4 625	11 550	4 073	2 790	2.154	2 961	3 613	15.170
14	6 309	9.765	7.902	12 220	6.996	10.740	4.183	2 978	2 162	2 710	4 010	8 693
15	6 237	9 135	7.753	8.125	7.382	10 390	4.150	3 389	2.137	2.533	3 547	10.550
16	6 259	8 495	5.302	7 388	9.751	8.829	4 200	4 197	2.243	2.499	3 604	9 707
17	5 791	5 320	5.294	7.687	5.700	6 250	4 497	3.225	1.966	2.317	3.465	6.709
18	5.751	9 621	7.190	8.195	5.891	8 653	4 429	3.158	2 411	2 306	4 094	8 436
19	5 096	6.628	4.975	5.779	6 098	6.505	4 689	3 387	3 159	2.317	3 452	7 621
20	5 790	8 224	7 132	5 843	8 396	8 275	6 825	5 630	3.296	2 496	3 795	7.122
21	42 390	8 085	6 032	6 565	8 413	5 235	4.419	3 531	3.267	2.943	4 312	7.108
22	49 290	9 268	6 716	7 732	4.777	6 197	5 128	5 268	3.179	2 498	6 345	6 809
23	42.460	31 090	8 025	6 040	4 198	7 138	3 918	4 964	3 083	2 767	3 001	9 012
24	36 000	34 600	9 299	5.161	4 439	8 414	4.123	2 848	3 009	2.349	3 704	28.500
25	29.270	30 260	10 430	4 054	3.839	7 368	3 890	3.696	3 015	2 638	6 357	53 720
26	34 560	13 720	10.270	3.875	6 063	8 882	3.835	3 507	3 051	2.914	5 298	68 270
27	32.240	13 180	10 300	5.848	7 800	7 710	3.691	3 875	3 124	2 295	5.663	68.570
28	30 380	10.980	9 347	3 626	7 978	5 716	3.963	5.592	3 243	2 590	4 508	62 670
29	33 710		8 001	5.182	6.505	5.462	6.122	2 624	3 148	2.589	4 614	51 380
30	39.650		4 078	5.395	3 686	5 923	8.302	2.799	3.120	2.183	1 755	24.760
31	35 950		9 887		4 455		9.229	3 326		2 060		21 350
Average	18 110	14 130	9 362	9 243	5.293	10 100	4.841	4 147	2.933	3.042	3 699	22.380
Lowest	4.895	5.320	4 078	3 626	2.885	3 290	3 691	2.553	1 966	2 060	1.755	1.981
Highest	49 290	34.600	17 020	30 680	9 751	36 890	9 229	8 187	4 707	7 072	6 394	68 570
Peak flow	54.580	37 310	18 950	44 090	11 700	39 040	11.160	13.140	7 907	7.657	9 536	71 260
Day of peak	22	24	4	12	16	7	31	5	2	8	11	26
Monthly total (million cu m)	48.51	34 18	25 08	23.96	14 18	26.18	12 97	11 11	7 60	8 15	9 59	59.94
Runoff (mm)	30	21	15	15	9	16	8	7	5	5	6	37
Rainfall (mm)	46	21	37	40	59	97	54	53	14	37	58	98

Statistics of monthly data for previous record (Jan 1939 to Dec 1984—incomplete or missing months total 1 3 years)

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Mean flows	Avg	16.980	18 290	16 520	10 180	7 397	4 995	3 711	3 680	3 221	4 454	9 382	12.790
	Low	2 020	1 608	1 440	1 299	0.915	0 536	0 842	0 482	0.738	1 013	1 141	1 641
	(year)	1939	1939	1939	1939	1939	1944	1943	1944	1943	1947	1947	1947
	High	48 200	49.750	79 660	35 040	27.690	13.010	20 060	20 470	20 090	22 140	40 580	42 580
	(year)	1959	1977	1947	1979	1983	1977	1968	1980	1968	1960	1960	1954
Runoff	Avg	28	28	27	16	12	8	6	6	5	7	15	21
	Low	3	2	2	2	2	1	1	1	1	2	2	3
	High	79	69	131	56	45	20	34	34	33	36	64	70
Rainfall (1940-1984)	Avg	55	42	48	42	54	54	51	63	54	52	61	55
	Low	20	3	5	8	10	5	6	3	3	5	10	13
	High	109	111	132	91	117	156	123	110	127	130	155	124

Summary statistics

	For 1985		For record preceding 1985		1985 As % of pre-1985
Mean flow (m^3s^{-1})	8 924		9 257		96
Lowest yearly mean			2 895	1944	
Highest yearly mean			16.170	1979	
Lowest monthly mean	2 933	Sep	0 482	Aug 1944	
Highest monthly mean	22 380	Dec	79 660	Mar 1947	
Lowest daily mean	1 755	30 Nov	0 085	29 Jul 1948	
Highest daily mean	68.570	27 Dec	320 000	18 Mar 1947	
Peak	71 260	26 Dec	382.300	18 Mar 1947	
10 %ile	16 430				
50 %ile	5 658				
95 %ile	2.275				
Annual total (million cu m)	281 40		292 10		96
Annual runoff (mm)	172		179		96
Annual rainfall (mm)	614		631		97
[1941-70 rainfall average (mm)			624]		

Factors affecting flow regime

- Reservoir(s) in catchment.
- Abstraction for public water supplies
- Flow reduced by industrial and/or agricultural abstractions.
- Augmentation from effluent returns

Station description

Group of weirs and sluices with regulated by-pass channels. High flows measured at Wansford 032010. Flows influenced by transfer of water to Rutland Water reservoir

033002 Bedford Ouse at Bedford 1985

Measuring authority: AWA
First year: 1933
Grid reference: TL 055495
Level stn. (m OD) 24.75
Catchment area (sq km): 1460.0
Max alt. (m OD): 247

Daily mean gauged discharges (cubic metres per second)

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	20 800	32.000	16.800	13 800	5 400	5 900	5 900	5.200	3 100	2 700	2 740	4 200
2	17 400	24 100	25 000	12 800	5.100	5 300	6 300	4 300	3 200	2.500	2 300	5 200
3	14 600	18 000	23 200	8.900	4.800	5 000	5 600	3.800	3 500	2.400	2 400	8 700
4	13.100	16.700	22.100	8.900	4 300	4 900	5 100	4 300	3 700	2.300	2 500	8 900
5	12 000	15 600	18 200	8 800	4 000	7 100	4 900	5.200	3 200	2 500	2 800	12 500
6	11 200	13 500	14 200	8 200	4 000	10 700	4 500	7 200	3 300	2.800	2 700	37 700
7	10 800	12 400	13 000	8 000	4.200	32 200	4 200	7 100	3 200	3 500	3 000	50 600
8	9 900	16 800	12 400	9 100	4 200	46 100	4 100	5 100	2 900	5.900	3 200	45 800
9	9 500	26 700	11 200	9 200	4 000	56 900	4 100	4 600	2 800	6 700	4 800	24 900
10	9 100	25 400	10 500	8.200	4 200	33 100	4 000	4 400	2 900	4 100	5 900	15 600
11	8.700	17 000	9 200	9 600	3 500	15 200	4 200	4 100	3 000	3 600	4 900	12 600
12	7 700	18 500	8 800	10 300	3 900	15 400	4 000	3 800	3 400	3.300	3 300	12 800
13	7 700	16 200	8 700	9 800	4 400	18 300	4 000	3.900	3 000	2 900	3 400	14 700
14	7 600	12 900	8.000	8 100	5 700	15.300	3 600	4 100	2 800	2.700	3 300	9 300
15	7.300	11 200	8 400	7 600	10 500	13.200	3 900	4 800	2 240	2 800	3 700	9 100
16	6.800	10 500	8 700	5 700	12 500	9.600	4 200	4.900	2 600	3 200	5 000	8 100
17	6 500	10 000	8 400	6.000	11 400	7.800	4 500	4 800	3 100	2.900	4 800	7 600
18	6.500	9 400	7 700	5 800	6 400	7.600	4 600	4 400	3 000	2 700	5 300	7 300
19	6 800	8 900	6 900	5.700	5.600	7 400	4 400	4 400	2 800	3.900	5.100	7.300
20	7.100	8 900	6 700	5 600	5 600	7.200	5 400	4.500	2 600	3 200	4 500	6 800
21	21.400	9 300	6 800	5 600	11 200	7 400	5 700	5.100	2 600	2 500	4 900	6 500
22	53.100	15.300	6 900	5.600	14 800	8.900	4 900	4 900	2 800	2 800	4 200	6 800
23	63 400	25 600	7.600	5.400	13 000	8.700	4 600	4.500	3 500	2 600	4 100	11 100
24	43 500	31 300	8 000	5 300	8.500	8.700	4 100	4 400	3 300	2 500	4 000	31 600
25	30 100	26 700	8 200	5.000	7.100	16.900	3 700	4 200	2 900	2 400	3 700	59.500
26	41 300	20 600	8 000	4.900	6.400	16 200	3 300	4 100	2 800	2.400	3 100	64 800
27	53 100	17 400	9 100	5 200	8 100	13 100	3 000	3 900	2 800	2 300	2 700	82 600
28	35 900	16 400	9 200	5.000	11.700	9 500	4 300	3 800	2 600	2 300	2 700	90 400
29	37 000		11 200	5.200	14 200	7 800	4 200	3 400	2.700	1 980	2 800	53 100
30	42 400		15 100	5 800	8.700	6 900	6 200	3 300	2 600	2 150	2 900	27 400
31	41 300		14 200		6 800		6 500	3.200		2 300		23 300
Average	21 410	17 400	11 370	7.437	7 232	14 280	4 581	4 506	2.965	2 995	3 675	24 740
Lowest	6 500	8 900	6 700	4 900	3 500	4 900	3 000	3 200	2 240	1.980	2 240	4 200
Highest	63.400	32 000	25 000	13 800	14 800	56 900	6 500	7 200	3 700	6 700	5 900	90 400
Peak flow	66.200	37 000	28 300	15.700	17.100	59 500	7.600	8 800	4 100	8.100	6 800	94 500
Day of peak	23	1	2	1	29	9	30	7	4	9	10	28
Monthly total (million cu m)	57 34	42.10	30 45	19.28	19.37	37 01	12 27	12 07	7.68	8.02	9.52	66 25
Runoff (mm)	39	29	21	13	13	25	8	8	5	5	7	45
Rainfall (mm)	46	30	37	32	66	107	51	57	18	32	47	99

Statistics of monthly data for previous record (Jan 1933 to Dec 1984)

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Mean flows	Avg.	19 250	20 290	17 380	10 840	7 150	4 287	3 085	2 707	2 764	5.142	11 190	15 220
	Low	2 606	2 233	2 409	1.994	1 412	0 484	0 098	0 038	0 270	0 452	1 149	1 537
	(year)	1934	1965	1944	1976	1934	1934	1934	1934	1934	1934	1934	1964
	High	55 190	53 300	62 010	31 460	28 290	11 950	19 080	14 400	18 000	26 420	43 800	40 400
	(year)	1939	1977	1947	1951	1983	1954	1968	1980	1968	1966	1960	1960
Runoff	Avg	35	34	32	19	13	8	6	5	5	10	20	28
	Low	5	4	4	4	3	1	0	0	0	1	2	3
	High	101	88	114	56	52	21	35	26	32	48	79	74
Rainfall (1934-1984)	Avg	58	42	49	44	55	52	52	61	55	59	65	60
	Low	15	3	5	3	10	8	5	3	3	4	10	13
	High	124	111	140	96	113	119	120	138	110	137	178	128

Summary statistics

	For 1985		For record preceding 1985		1985 As % of pre-1985
Mean flow (m^3s^{-1})	10.190		9 893		103
Lowest yearly mean			2.401	1934	
Highest yearly mean			18.890	1937	
Lowest monthly mean	2.965	Sep	0 038	Aug 1934	
Highest monthly mean	24 740	Dec	62 010	Mar 1947	
Lowest daily mean	1 980	29 Oct	0 008	31 Aug 1934	
Highest daily mean	90 400	28 Dec	278.100	15 Mar 1947	
Peak	94 500	28 Dec			
10 %ile	21 540				
50 %ile	6 056				
95 %ile	2 565				
Annual total (million cu m)	321 40		312 20		103
Annual runoff (mm)	220		214		103
Annual rainfall (mm)	622		652		95
[1941-70 rainfall average (mm)			650]		

Factors affecting flow regime

- Reservoir(s) in catchment
- Flow influenced by groundwater abstraction and/or recharge.
- Abstraction for public water supplies.
- Flow reduced by industrial and/or agricultural abstractions.
- Augmentation from effluent returns.

Station description
Three broad crested weirs, supplemented by three vertically lifting sluice gates for high flows

034006 Waveney at Needham Mill 1985

Measuring authority: AWA
First year: 1963

Grid reference: TM 229811
Level stn. (m OD) 16 50

Catchment area (sq km): 370.0
Max alt (m OD): 65

Daily mean gauged discharges (cubic metres per second)

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	3.265	5 057	1.920	2.131	0.896	0.667	1.696	0 785	0.585	0 426	0.516	0 981
2	3.358	3.884	2 492	1.757	0 827	0 618	1 403	0 771	0.573	0.424	0 510	0 955
3	3.110	2.986	2.827	1 405	0.800	0 610	1.226	0 864	0 608	0 439	0.556	1.158
4	2.924	2.707	3.189	1 356	0 793	0 635	1.117	0 846	0 693	0 423	0.528	0 975
5	2.433	2 494	2.270	1 327	0 783	1 060	1 404	0 859	0 633	0 416	0 483	3.132
6	2.223	2.082	1.790	1 220	0.768	3 448	1.954	0 907	0 591	0 397	0.424	5 263
7	1.832	1 913	1.672	1 145	0 713	6.595	1 147	1.182	0.559	0.420	0 432	4.608
8	1 639	1.925	1.531	1.714	0 698	4 443	0 982	1 086	0.537	0 483	0 543	3 556
9	1 673	1.580	1 368	2 583	1.253	3 260	0 888	1 005	0.532	0 485	0.547	2 584
10	1 476	1 207	1 318	1 806	1 066	2.965	0 838	1 036	0 544	0 445	0 536	1 913
11	1.327	1.802	1.253	3 746	0.834	3 072	0 787	0 919	0.536	0 434	0 529	1 415
12	1 435	1 456	1 214	11 480	0 783	8 050	0 750	0 886	0 516	0 415	0 527	1 197
13	1.780	1 365	1.257	5 808	0 953	4.797	0 696	0 930	0 502	0 394	0 513	1 238
14	1.693	1.271	1.275	7 966	9 523	9 868	0.896	1 028	0 499	0.391	0.496	1 489
15	1 594	1.127	1 378	12 700	12 420	11 660	0 817	0 844	0 477	0 412	0.509	1 463
16	1.592	1 039	1 471	5 932	4 310	5.354	0 687	0 755	0 476	0 427	0 542	1 314
17	1 614	0.903	1.225	3 563	2.766	3 075	0 660	0 773	0 487	0 441	0 801	1 234
18	1 736	1 105	1 110	2 818	2 148	2.306	0 624	0 760	0 483	0 450	0 564	1 214
19	1.614	1 034	1 180	2 407	1 667	2.201	0 754	0 866	0 486	0 443	0 516	1 164
20	1 726	1.050	1 578	2 020	1.827	2 074	1 000	1 059	0 477	0 407	0.513	1 123
21	15.720	1 192	1.761	1 472	1 615	2.215	0 795	0 948	0 482	0 405	0 558	1 070
22	29 760	1.274	1.701	1 307	2 038	3.366	0.747	0 936	0 463	0.505	0 624	1 050
23	20 260	1.574	1.528	1 190	1 618	2 583	0 685	0 907	0 435	0 306	0 611	1 034
24	6.187	1 926	1 574	1 084	1 325	6.780	0 621	0 907	0 444	0 406	0 603	2 013
25	5 124	1.889	1 774	1 054	1.108	13 630	0 590	0 900	0 450	0 401	0.614	5 320
26	9.163	1 790	1 888	0 993	1 079	8 803	0 580	0 807	0 450	0 443	0 648	17 210
27	5 962	1.639	1 768	1 026	1.368	5 755	0 569	0 726	0 447	0 462	0 641	19.950
28	3.729	1 601	1 519	0 974	1 153	3.927	0 580	0 672	0 445	0 469	0 663	7 060
29	5 337		1.466	0 889	0 842	2 849	0 784	0 646	0 418	0 483	0 680	2 478
30	10 880		1 505	0 920	0 767	2 390	1 059	0 647	0 413	0 491	0.835	2 337
31	7.474		1 389		0 746		0 928	0 615		0 497		2 379
Average	5 150	1.816	1 651	2 860	1 919	4 302	0 911	0 867	0 508	0 433	0 562	3.222
Lowest	1.327	0 903	1.110	0 889	0 698	0 610	0 569	0 615	0 413	0.306	0 424	0.955
Highest	29 760	5 057	3 189	12 700	12 420	13 630	1 954	1.182	0 693	0 505	0 835	19 950
Peak flow		5 958	3 414	14 770	14 250	14 670	2 692	1 226	0 773	0 702	0 976	23 400
Day of peak		1	4	15	14	25	6	7	23	22	30	27
Monthly total (million cu m)	13 79	4 39	4.42	7 41	5 14	11 15	2 44	2.32	1 32	1.16	1.46	8 63
Runoff (mm)	37	12	12	20	14	30	7	6	4	3	4	23
Rainfall (mm)	65	10	38	51	63	132	51	58	13	10	47	78

Statistics of monthly data for previous record (Dec 1983 to Dec 1984)

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Mean flows	Avg.	3 666	3.625	2 604	1 945	1 157	0 637	0 493	0 479	0.904	0 869	1 884	2.909
	Low	0.609	0 722	0 591	0 487	0 369	0 286	0 285	0 282	0.261	0 352	0 397	0 492
	(year)	1973	1965	1973	1974	1974	1974	1974	1973	1964	1964	1964	1964
	High	7 132	10.670	7 666	5 646	3 255	1 131	0 880	1 250	9 754	2 912	8 852	8 380
	(year)	1969	1979	1981	1983	1969	1984	1969	1968	1968	1974	1974	1965
Runoff	Avg.	27	24	19	14	8	4	4	3	6	6	13	21
	Low	4	5	4	3	3	2	2	2	2	3	3	4
	High	52	70	55	40	24	8	8	9	68	21	62	61
Rainfall	Avg	51	39	43	43	47	48	59	47	57	51	65	54
	Low	16	17	10	9	10	10	11	7	2	4	25	18
	High	90	72	96	86	97	104	364	101	161	116	150	100

Summary statistics

	For 1985		For record preceding 1985		1985 As % of pre-1985
Mean flow (m^3s^{-1})	2 018		1 755		115
Lowest yearly mean			0 537	1973	
Highest yearly mean			2.730	1969	
Lowest monthly mean	0 433	Oct	0 261	Sep 1964	
Highest monthly mean	5 150	Jan	10 670	Feb 1979	
Lowest daily mean	0 306	23 Oct	0 189	23 Aug 1973	
Highest daily mean	29 760	22 Jan	89 760	16 Sep 1968	
Peak			113.300	16 Sep 1968	
10 %ile	4 119		4 123		100
50 %ile	1.093		0 757		144
95 %ile	0 430		0 321		134
Annual total (million cu m)	63 64		55 39		115
Annual runoff (mm)	172		150		115
Annual rainfall (mm)	616		604		102
[1941-70 rainfall average (mm)			603]		

Factors affecting flow regime

- Flow reduced by industrial and/or agricultural abstractions.
- Augmentation from surface water and/or groundwater.

Station description
Compound Crump weir in main channel plus single crested Crump in mill bypass

036006 Stour at Langham 1985

Measuring authority: AWA
First year: 1962
Grid reference: TM 020344
Level stn. (m OD) 6.40
Catchment area (sq km): 578.0
Max alt. (m OD) 128

Daily mean gauged discharges (cubic metres per second)

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	5.256	6.975	4.149	3.194	1.920	1.191	1.704	2.054	0.868	0.798	0.828	1.189
2	4.232	5.128	9.102	3.062	1.872	1.317	1.665	2.023	0.912	0.806	1.012	1.229
3	4.007	4.084	7.468	2.774	1.730	1.268	1.550	2.027	0.923	0.785	0.894	1.181
4	3.842	3.857	6.904	2.722	1.735	1.336	1.439	2.028	0.859	0.814	0.853	1.145
5	3.292	3.267	4.812	2.829	1.754	1.471	1.365	2.085	1.048	0.807	0.766	1.897
6	3.086	3.393	3.222	2.676	1.807	3.761	2.125	2.047	0.981	0.834	0.806	5.575
7	2.958	3.032	3.264	2.752	1.729	4.863	1.451	1.970	0.897	0.912	0.756	4.485
8	2.596	3.045	2.835	2.655	1.793	4.006	1.326	1.882	0.867	0.982	0.921	3.547
9	2.319	3.168	2.586	2.544	2.142	2.656	1.153	1.879	0.918	0.942	1.294	3.300
10	2.151	2.639	2.393	2.438	1.937	1.926	1.010	1.957	0.892	0.890	1.092	3.222
11	2.080	2.998	2.464	5.103	1.734	1.979	1.196	1.920	0.944	0.752	0.962	2.798
12	2.012	3.132	2.324	12.620	1.665	2.721	1.125	1.929	0.934	0.778	0.878	2.249
13	2.258	2.752	2.327	7.512	2.101	4.773	1.071	1.861	0.799	0.831	0.815	2.196
14	1.799	2.182	2.401	4.410	2.479	5.520	1.465	1.931	0.986	0.772	0.761	2.376
15	1.578	1.909	2.554	3.010	3.262	5.235	1.168	1.701	0.982	0.671	0.767	2.415
16	1.655	1.585	2.908	2.469	2.508	2.855	1.077	1.712	0.975	0.651	0.967	2.256
17	1.898	1.764	5.496	2.586	1.945	2.499	1.704	1.769	0.924	0.709	0.920	2.223
18	1.874	1.859	7.704	2.356	1.830	2.162	1.916	1.744	0.879	0.708	0.992	2.283
19	1.751	1.768	6.298	2.329	1.739	2.985	2.052	2.252	0.878	0.713	0.943	2.505
20	1.741	1.650	5.060	2.445	1.812	5.917	2.367	2.608	0.943	0.728	0.903	2.414
21	9.205	1.683	4.836	2.387	1.702	3.196	2.036	1.832	1.004	0.701	0.919	2.333
22	22.090	1.827	4.926	2.264	1.752	2.455	2.026	1.560	0.971	0.667	0.920	2.266
23	28.290	2.335	4.098	2.197	1.678	2.661	1.942	1.989	0.943	0.645	0.916	2.422
24	11.420	5.611	4.221	2.159	1.654	3.779	1.837	2.089	0.892	0.734	0.954	3.151
25	9.318	4.172	5.338	2.180	1.595	4.674	1.815	1.987	0.902	0.845	0.947	8.293
26	16.950	3.806	5.314	2.082	1.763	3.574	1.757	1.916	0.866	0.956	0.912	15.400
27	14.400	3.427	5.344	2.089	1.875	2.910	1.762	1.743	0.848	0.882	0.929	22.260
28	7.947	3.062	4.263	2.081	1.801	2.589	1.977	1.487	0.848	0.831	0.935	11.810
29	8.195		3.864	2.070	1.532	2.296	2.046	0.935	0.940	1.066	0.932	4.892
30	16.460		3.566	2.060	1.354	1.957	2.354	0.914	0.703	0.984	1.136	4.095
31	11.610		3.232		1.262		2.390	0.974		0.782		3.172
Average	6.718	3.075	4.357	3.135	1.854	3.018	1.673	1.832	0.910	0.806	0.921	4.212
Lowest	1.578	1.585	2.324	2.060	1.262	1.191	1.010	0.914	0.703	0.645	0.756	1.145
Highest	28.290	6.975	9.102	12.620	3.262	5.917	2.390	2.608	1.048	1.066	1.294	22.260
Peak flow	34.020	8.337	10.930	15.400	3.577	8.726	2.970	3.943	2.540	1.402	1.402	23.650
Day of peak	23	1	17	12	15	14	20	20	24	29	10	27
Monthly total (million cu m)	17.99	7.44	11.67	8.13	4.97	7.82	4.48	4.91	2.36	2.16	2.39	11.28
Runoff (mm)	31	13	20	14	9	14	8	8	4	4	4	20
Rainfall (mm)	47	13	48	36	44	116	51	51	12	11	44	72

Statistics of monthly data for previous record (Oct 1962 to Dec 1984)

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Mean flows:	Avg	5.236	5.184	4.805	3.524	2.523	1.405	0.958	0.927	1.075	1.591	2.798	4.094
	Low	1.398	0.884	1.597	1.218	0.758	0.453	0.190	0.209	0.395	0.509	0.578	0.693
	(year)	1965	1965	1976	1974	1974	1965	1976	1976	1964	1970	1964	1964
	High	9.053	12.980	9.776	9.335	7.253	2.810	1.655	2.080	4.955	6.237	11.340	10.550
	(year)	1971	1979	1981	1983	1983	1983	1980	1968	1968	1982	1974	1965
Runoff:	Avg	24	22	22	16	12	6	4	4	5	7	13	19
	Low	6	4	7	5	4	2	1	1	2	2	3	3
	High	42	54	45	42	34	13	8	10	22	29	51	49
Rainfall:	Avg	48	36	46	44	49	49	43	49	54	49	61	52
	Low	15	16	12	11	12	10	8	11	1	3	20	13
	High	85	63	93	99	100	100	87	105	118	128	155	107

Summary statistics

	For 1985		For record preceding 1985		1985 As % of pre-1985
Mean flow (m^3s^{-1})	2.714		2.833		96
Lowest yearly mean			1.428	1973	
Highest yearly mean			4.077	1979	
Lowest monthly mean	0.806	Oct	0.190	Jul 1976	
Highest monthly mean	6.718	Jan	12.980	Feb 1979	
Lowest daily mean	0.645	23 Oct	0.094	9 Jul 1976	
Highest daily mean	28.290	23 Jan	42.940	31 Dec 1981	
Peak	34.020	23 Jan	43.850	31 Dec 1981	
10 %ile	5.024		6.304		80
50 %ile	1.952		1.573		124
95 %ile	0.780		0.502		155
Annual total (million cu m)	85.59		89.41		96
Annual runoff (mm)	148		155		96
Annual rainfall (mm)	545		580		94
[1941-70 rainfall average (mm)			601]		

Factors affecting flow regime

- Flow reduced by industrial and/or agricultural abstractions.
- Augmentation from surface water and/or groundwater.
- Augmentation from effluent returns.

Station description
Twin-throated trapezoidal critical depth flume. Flow augumented as part of Ely-Ouse transfer scheme.

038003 Mimram at Panshanger Park 1985

Measuring authority: TWA
First year: 1952

Grid reference: TL 282133
Level stn. (m OD) 47.10

Catchment area (sq km): 133.9
Max alt. (m OD): 193

Daily mean gauged discharges (cubic metres per second)

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0.642	0.694	0.772	0.667	0.584	0.486	0.484	0.429	0.358	0.302	0.301	0.307
2	0.640	0.690	0.716	0.649	0.591	0.481	0.531	0.493	0.375	0.301	0.280	0.366
3	0.638	0.688	0.729	0.650	0.593	0.480	0.477	0.433	0.403	0.302	0.277	0.303
4	0.642	0.691	0.700	0.654	0.588	0.663	0.464	0.612	0.369	0.298	0.284	0.348
5	0.636	0.690	0.688	0.655	0.596	0.838	0.464	0.469	0.361	0.295	0.279	0.584
6	0.654	0.688	0.682	0.653	0.580	0.907	0.453	0.435	0.353	0.376	0.279	0.476
7	0.637	0.743	0.690	0.744	0.587	0.753	0.451	0.437	0.355	0.368	0.373	0.365
8	0.635	0.777	0.682	0.695	0.590	0.583	0.449	0.427	0.361	0.337	0.392	0.334
9	0.636	0.736	0.679	0.668	0.574	0.564	0.453	0.437	0.363	0.322	0.407	0.319
10	0.638	0.713	0.688	0.659	0.576	0.538	0.449	0.475	0.365	0.315	0.316	0.322
11	0.635	0.710	0.663	0.778	0.568	0.637	0.452	0.420	0.368	0.309	0.290	0.325
12	0.638	0.687	0.660	0.678	0.606	0.576	0.454	0.455	0.367	0.313	0.285	0.307
13	0.629	0.678	0.659	0.634	0.677	0.549	0.450	0.415	0.365	0.310	0.280	0.309
14	0.639	0.677	0.658	0.618	0.798	0.538	0.438	0.430	0.376	0.309	0.367	0.300
15	0.644	0.671	0.674	0.615	0.655	0.523	0.432	0.415	0.360	0.310	0.306	0.298
16	0.630	0.676	0.667	0.580	0.603	0.520	0.438	0.414	0.337	0.305	0.440	0.294
17	0.616	0.684	0.651	0.581	0.591	0.524	0.433	0.410	0.328	0.333	0.333	0.316
18	0.617	0.680	0.650	0.576	0.650	0.521	0.433	0.434	0.332	0.300	0.410	0.291
19	0.616	0.671	0.640	0.576	0.632	0.529	0.535	0.420	0.332	0.296	0.289	0.283
20	0.624	0.680	0.647	0.584	0.585	0.546	0.505	0.385	0.332	0.295	0.290	0.283
21	0.879	0.688	0.681	0.584	0.684	0.597	0.427	0.475	0.328	0.297	0.290	0.274
22	0.726	0.686	0.679	0.582	0.592	0.551	0.425	0.396	0.317	0.293	0.289	0.348
23	0.669	0.694	0.655	0.580	0.586	0.530	0.406	0.423	0.314	0.293	0.291	0.467
24	0.754	0.687	0.648	0.574	0.585	0.635	0.410	0.417	0.321	0.294	0.289	0.442
25	0.825	0.687	0.670	0.572	0.575	0.600	0.407	0.379	0.320	0.293	0.287	0.636
26	0.764	0.683	0.776	0.569	0.632	0.641	0.441	0.367	0.316	0.296	0.284	0.871
27	0.712	0.678	0.673	0.584	0.618	0.548	0.414	0.365	0.319	0.296	0.285	0.445
28	0.714	0.674	0.658	0.600	0.555	0.535	0.481	0.358	0.312	0.287	0.283	0.398
29	0.762		0.661	0.606	0.521	0.528	0.488	0.353	0.318	0.280	0.412	0.375
30	0.717		0.662	0.592	0.505	0.514	0.496	0.349	0.305	0.284	0.366	0.368
31	0.704		0.676		0.492		0.441	0.353		0.306		0.366
Average	0.675	0.693	0.678	0.625	0.599	0.581	0.454	0.422	0.344	0.307	0.319	0.378
Lowest	0.616	0.671	0.640	0.569	0.492	0.480	0.406	0.349	0.305	0.280	0.277	0.274
Highest	0.879	0.777	0.776	0.778	0.798	0.907	0.535	0.612	0.403	0.376	0.440	0.871
Peak flow	1.160	0.869	0.960	0.997	1.090	1.760	0.735	0.890	0.552	0.658	0.986	1.580
Day of peak	25	7	26	11	18	5	19	4	3	6	18	26
Monthly total (million cu m)	1.81	1.68	1.82	1.62	1.60	1.51	1.22	1.13	0.89	0.82	0.83	1.01
Runoff (mm)	13	13	14	12	12	11	9	8	7	6	6	8
Rainfall (mm)	44	21	38	21	45	112	44	46	16	19	49	90

Statistics of monthly data for previous record (Dec 1952 to Dec 1984)

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Mean flows	Avg	0.579	0.642	0.671	0.659	0.619	0.562	0.489	0.451	0.425	0.414	0.452	0.508
	Low	0.245	0.289	0.258	0.260	0.216	0.186	0.163	0.145	0.195	0.175	0.176	0.189
	(year)	1974	1973	1973	1973	1976	1976	1976	1976	1973	1973	1973	1973
	High	1.102	1.167	1.119	1.050	1.084	0.971	0.803	0.764	0.617	0.638	0.739	1.005
	(year)	1961	1961	1961	1979	1979	1979	1979	1979	1968	1968	1960	1960
Runoff	Avg	12	12	13	13	12	11	10	9	8	8	9	10
	Low	5	5	5	5	4	4	3	3	4	4	3	4
	High	22	21	22	20	22	19	16	15	12	13	14	20
Rainfall	Avg	55	43	49	45	52	58	53	57	58	59	63	62
	Low	17	3	3	5	15	5	5	7	5	5	20	13
	High	102	96	116	105	115	122	123	127	121	142	151	119

Summary statistics

	For 1985		For record preceding 1985		1985 As % of pre-1985
Mean flow (m^3s^{-1})	0.505		0.539		94
Lowest yearly mean			0.231	1973	
Highest yearly mean			0.767	1961	
Lowest monthly mean	0.307	Oct	0.145	Aug 1976	
Highest monthly mean	0.693	Feb	1.167	Feb 1961	
Lowest daily mean	0.274	21 Dec	0.135	21 Aug 1976	
Highest daily mean	0.907	6 Jun	1.795	30 May 1979	
Peak	1.760	5 Jun	3.541	30 May 1979	
10 %ile	0.689		0.794		87
50 %ile	0.503		0.513		98
95 %ile	0.288		0.235		123
Annual total (million cu m)	15.93		16.99		94
Annual runoff (mm)	119		127		94
Annual rainfall (mm)	545		654		83
(1941-70 rainfall average (mm)			645)		

Factors affecting flow regime

- Flow influenced by groundwater abstraction and/or recharge.
- Flow reduced by industrial and/or agricultural abstractions

Station description
Trapezoidal critical depth flume measures up to 11.3 cu m/s

039001 Thames at Kingston/Teddington 1985

Measuring authority: TWA
First year: 1883
Grid reference: TQ 177698
Level stn (m OD): 4 73
Catchment area (sq km): 9948 0
Max alt (m OD): 330

Daily mean gauged discharges (cubic metres per second)

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	126 000	151 000	93 400	117 000	46 500	37 300	52 300	31 500	23 600	22 600	14 700	19 500
2	104 000	121 000	109 000	113 000	41 000	37 800	37 800	23 700	20 300	23 700	17 900	34 700
3	93 200	106 000	116 000	94 200	33 100	37 100	39 100	24 500	26 200	24 200	13 200	32 100
4	87 000	97 000	128 000	85 300	34 600	41 100	42 000	45 000	32 400	26 300	14 200	56 800
5	82 400	95 000	107 000	77 900	34 200	63 200	40 900	75 600	23 900	26 300	14 200	86 300
6	84 900	88 000	87 200	69 800	35 600	113 000	36 400	51 100	23 400	26 300	10 500	142 000
7	73 900	98 100	73 600	87 600	29 300	166 000	28 600	51 400	18 000	35 800	13 200	158 000
8	64 800	178 000	78 400	125 000	28 800	174 000	29 700	27 500	16 800	55 800	10 500	148 000
9	65 000	233 000	72 700	116 000	25 800	151 000	24 500	37 100	14 800	48 400	23 200	113 000
10	65 200	220 000	65 600	89 200	25 500	119 000	21 800	48 500	16 300	26 300	35 800	84 200
11	63 700	186 000	66 600	104 000	32 700	101 000	18 600	44 800	21 100	32 600	21 000	56 800
12	56 600	134 000	61 400	124 000	32 100	89 200	22 200	35 700	20 000	32 600	15 300	56 800
13	53 800	118 000	64 500	91 300	33 600	64 700	25 600	33 900	14 900	30 010	10 500	67 400
14	53 400	112 000	62 100	89 300	62 200	78 600	26 900	39 000	12 400	26 800	14 700	58 400
15	41 700	95 100	61 900	59 000	121 000	54 400	28 700	45 300	13 890	26 800	16 290	47 900
16	50 700	83 800	58 400	72 400	97 300	56 400	27 600	30 600	12 490	26 300	13 700	48 400
17	48 900	75 000	58 000	53 400	53 600	49 600	22 000	36 700	9 810	24 200	23 700	39 500
18	48 900	83 400	57 700	59 700	43 900	44 000	19 200	27 800	11 600	22 100	22 100	42 100
19	46 900	67 300	55 400	55 200	43 800	40 800	22 900	34 000	13 410	22 100	14 700	37 900
20	54 900	64 900	55 200	57 500	35 400	47 600	25 600	28 900	11 710	23 200	13 200	42 600
21	110 000	70 200	55 200	59 700	102 000	60 500	28 500	28 100	12 300	20 000	11 000	41 000
22	238 000	82 600	57 000	56 600	125 000	60 800	29 200	32 300	15 500	21 000	10 500	44 700
23	206 000	106 000	72 800	53 400	95 000	70 900	25 500	32 200	13 500	20 000	10 500	68 400
24	159 000	107 000	87 200	44 100	37 200	82 500	19 400	41 100	14 000	20 000	12 100	122 000
25	165 000	111 000	77 600	45 200	59 600	109 000	23 800	45 900	13 410	18 900	18 900	188 000
26	228 000	89 000	99 100	43 900	39 500	109 000	23 300	30 900	11 400	18 900	18 900	305 000
27	198 000	89 900	126 000	45 600	72 600	91 500	18 900	29 200	11 000	20 000	20 000	395 000
28	204 000	88 200	106 000	38 300	91 400	85 200	22 400	23 000	10 900	20 000	20 000	316 000
29	192 000		78 400	47 900	75 400	58 000	42 900	17 300	10 300	21 000	21 000	263 000
30	179 000		73 300	47 800	39 900	64 600	39 800	24 200	13 900	20 000	20 000	237 000
31	163 000		82 000		43 000		34 300	25 100		19 500		184 000
Average	109 900	112 500	78 930	73 440	53 890	78 590	29 050	35 550	16 110	25 860	16 520	114 100
Lowest	41 700	64 900	55 200	38 300	25 500	37 100	18 600	17 300	9 810	18 900	10 500	19 500
Highest	238 000	233 000	128 000	125 000	125 000	174 000	52 300	75 600	32 400	55 800	35 800	395 000
Peak flow												
Day of peak												
Monthly total (million cu m)	294 40	272 20	211 40	190 40	144 30	203 70	77 79	95 20	41 75	69 27	42 81	305 60
Runoff (mm)	30	27	21	19	15	20	8	10	4	7	4	31
Rainfall (mm)	56	36	50	40	72	108	52	81	18	34	47	111

Statistics of monthly data for previous record (Jan 1883 to Dec 1984)

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Mean flows	Avg	128 500	125 700	107 000	75 750	54 630	37 320	23 460	21 870	23 680	38 850	73 600	103 400
	Low	18 570	12 310	9 434	8 981	4 383	3 301	2 080	1 894	0 691	3 157	7 484	10 210
	(year)	1976	1976	1976	1976	1976	1976	1921	1976	1976	1934	1921	1933
	High	325 300	342 000	359 500	194 600	171 700	171 600	75 550	79 330	128 800	179 800	334 000	333 900
	(year)	1915	1904	1947	1951	1932	1903	1968	1931	1968	1903	1894	1929
Runoff	Avg	35	31	29	20	15	10	6	6	6	10	19	28
	Low	5	3	3	2	1	1	1	1	0	1	2	3
	High	88	86	97	51	46	45	20	21	34	48	87	90
Rainfall	Avg	65	49	53	48	55	52	58	64	59	72	73	72
	Low	18	3	3	3	8	3	8	3	3	5	8	13
	High	137	127	142	104	137	137	130	147	157	188	188	185

Summary statistics

	For 1985		For record preceding 1985		1985 As % of pre-1985
Mean flow (m^3s^{-1})	61 800		67 530		92
Lowest year'y mean			20 410	1934	
Highest year'y mean			123 400	1951	
Lowest monthly mean	16 110	Sep	0 691	Sep 1976	
Highest monthly mean	114 100	Dec	359 500	Mar 1947	
Lowest daily mean	9 810	17 Sep	0 010	1 Oct 1976	
Highest daily mean	395 000	27 Dec	1059 000	18 Nov 1894	
Peak flow					
10 %ile	121 900		165 200		74
50 %ile	45 290		42 400		107
95 %ile	13 040		8 847		147
Annual total (million cu m)	1949 00		2131 00		
Annual runoff (mm)	196		214		
Annual rainfall (mm)	705		720		
[1941-70 rainfall average (mm)			723]		

Factors affecting flow regime

- Reservoir(s) in catchment
- Flow influenced by groundwater abstraction and/or recharge
- Abstraction for public water supplies.
- Flow reduced by industrial and/or agricultural abstractions
- Augmentation from surface water and/or groundwater
- Augmentation from effluent returns

Comment

The abrupt increase in discharge from September to October resulted from a large reduction in the rate of abstraction for public supply - see the corresponding tabulation of naturalised flows.

Station description

Ultrasonic gauging station installed at Kingston in 1975. Earlier data derived from the Teddington gauging station - a low flow gauging weir with adjustable crest 21 3 m broad, two roller sluices each 10 7 m broad, 35 vertically lifting gates total breadth, 68 2 m, and 34 radial gates each 3.07 m broad. Naturalised flows are determined by taking account of abstractions for public water supply.

039007 Blackwater at Swallowfield 1985

Measuring authority: TWA
First year: 1952

Grid reference: SU 731648
Level stn. (m OD) 42.28

Catchment area (sq km): 354.8
Max alt. (m OD): 225

Daily mean gauged discharges (cubic metres per second)

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	4.060	4.960	4.250	4.770	2.170	2.170	2.050	1.650	1.460	1.390	1.420	2.060
2	3.750	4.400	4.020	4.070	2.150	2.030	1.970	1.700	1.540	1.350	1.400	2.670
3	3.490	4.030	4.890	3.620	2.140	1.950	1.860	1.880	1.970	1.390	1.380	2.640
4	3.300	3.860	4.390	3.490	2.110	3.370	1.760	3.310	1.750	1.740	1.430	2.530
5	3.150	3.550	3.740	3.320	2.110	3.050	1.720	3.640	1.620	1.530	1.450	6.140
6	3.220	3.460	3.590	3.260	2.030	3.600	1.840	2.260	1.530	1.570	1.400	5.300
7	3.040	6.080	3.640	5.020	2.020	4.980	1.650	1.990	1.490	2.480	1.450	5.050
8	2.940	12.400	3.340	5.350	1.980	3.300	1.550	1.860	1.470	1.790	1.970	3.310
9	2.920	9.270	3.180	4.100	1.990	2.970	1.580	1.830	1.480	1.830	2.550	2.810
10	2.820	6.740	3.090	3.680	1.980	2.550	1.550	2.810	1.500	1.570	1.890	2.530
11	2.810	5.310	2.990	5.150	2.000	2.390	1.510	2.230	1.430	1.550	1.590	2.580
12	2.860	4.560	2.920	4.070	2.050	2.920	1.480	1.980	1.400	1.500	1.540	2.420
13	2.820	3.990	2.930	3.740	2.920	2.700	1.460	1.940	1.400	1.440	1.520	2.360
14	2.770	3.620	2.980	3.350	6.260	2.780	1.570	1.730	1.400	1.450	1.720	2.310
15	2.690	3.380	2.920	3.140	6.130	2.300	1.470	1.660	1.400	1.430	1.960	2.210
16	2.750	3.330	2.920	2.960	3.450	2.100	1.540	1.650	1.400	1.430	1.870	2.130
17	2.740	3.330	2.780	2.860	2.850	2.010	1.510	1.940	1.380	1.450	2.780	2.100
18	2.660	3.280	2.890	2.680	2.530	1.980	1.510	1.690	1.420	1.450	1.950	2.110
19	2.670	3.160	2.730	2.590	2.390	1.960	1.800	1.780	1.430	1.470	1.730	1.970
20	2.810	3.300	2.760	2.670	3.260	2.250	1.760	1.710	1.410	1.440	1.690	1.970
21	13.300	3.950	3.040	2.560	7.020	3.770	1.560	1.680	1.380	1.410	1.700	1.970
22	9.230	4.220	3.630	2.440	4.010	3.380	1.640	2.160	1.440	1.400	1.580	2.790
23	5.520	4.380	3.250	2.370	3.190	3.050	1.550	1.760	1.410	1.380	1.610	2.610
24	6.810	4.110	3.240	2.280	2.860	5.430	1.450	2.680	1.380	1.440	1.610	5.200
25	10.500	3.840	3.240	2.200	2.600	4.730	1.400	2.050	1.380	1.460	1.630	11.000
26	9.470	3.600	5.850	2.160	2.900	3.980	1.400	1.700	1.420	1.480	1.580	22.100
27	6.940	3.500	4.760	2.180	6.900	3.010	1.400	1.580	1.400	1.450	1.620	11.200
28	9.790	3.430	3.860	2.170	4.270	2.600	1.630	1.530	1.440	1.490	1.600	5.720
29	7.350		3.510	2.470	3.130	2.520	2.600	1.520	1.400	1.460	1.890	4.090
30	6.550		3.500	2.240	2.640	2.270	2.200	1.490	1.420	1.500	2.400	3.500
31	5.820		3.550		2.320		2.020	1.480		1.410		3.440
Average	4.889	4.537	3.496	3.232	3.108	2.937	1.677	1.964	1.465	1.520	1.730	4.220
Lowest	2.660	3.160	2.730	2.160	1.980	1.950	1.400	1.480	1.380	1.350	1.380	1.970
Highest	13.300	12.400	5.850	5.350	7.020	5.430	2.600	3.640	1.970	2.480	2.780	22.100
Peak flow	16.500	17.400	8.360	6.430	12.600	7.660	2.920	4.920	2.180	2.900	3.460	23.300
Day of peak	21	8	26	7	14	24	29	4	3	7	17	26
Monthly total (million cu m)	13.09	10.98	9.36	8.38	8.33	7.61	4.49	5.26	3.80	4.07	4.49	11.30
Runoff (mm)	37	31	26	24	23	21	13	15	11	11	13	32
Rainfall (mm)	58	36	40	39	76	92	47	77	13	24	41	111

Statistics of monthly data for previous record (Oct 1952 to Dec 1984)

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Mean flows	Avg	4.639	4.089	3.852	3.033	2.558	1.995	1.453	1.489	1.826	2.518	3.385	4.051
	Low	1.758	1.687	1.323	1.521	1.081	0.767	0.711	0.723	0.638	0.907	1.262	1.298
	(year)	1954	1965	1953	1976	1956	1953	1953	1953	1959	1959	1964	1953
	High	8.000	7.292	6.898	5.600	5.946	6.472	2.316	2.622	6.609	7.613	8.019	7.022
	(year)	1975	1966	1979	1966	1978	1971	1968	1977	1968	1960	1960	1960
Runoff	Avg	35	28	29	22	19	15	11	11	13	19	25	31
	Low	13	12	10	11	8	6	5	5	5	7	9	10
	High	60	50	52	41	45	47	17	20	48	57	59	53
Rainfall	Avg	66	45	54	44	56	52	54	58	69	70	73	73
	Low	15	5	3	3	8	5	18	17	3	6	18	18
	High	124	108	125	106	128	144	104	117	167	208	179	167

Summary statistics

	For 1985		For record preceding 1985		1985 As % of pre-1985
Mean flow (m^3s^{-1})	2.891		2.902		100
Lowest yearly mean			1.466	1953	
Highest yearly mean			3.777	1982	
Lowest monthly mean	1.465	Sep	0.638	Sep 1959	
Highest monthly mean	4.889	Jan	8.019	Nov 1960	
Lowest daily mean	1.350	2 Oct	0.464	18 Aug 1953	
Highest daily mean	22.100	26 Dec	39.200	16 Sep 1968	
Peak	23.300	26 Dec	41.000	16 Sep 1968	
10 %ile	4.778		5.530		86
50 %ile	2.355		2.121		111
95 %ile	1.406		0.863		163
Annual total (million cu m)	91.17		91.59		100
Annual runoff (mm)	257		258		100
Annual rainfall (mm)	654		714		92
(1941-70 rainfall average (mm)			708)		

Factors affecting flow regime

- Augmentation from effluent returns

Station description

Critical depth flume and side weir 9 m broad. 1970 onwards 2 Crump weirs, main 4.57 m broad, side 2.7 m broad

039020 Coln at Bibury 1985

Measuring authority: TWA
First year: 1963

Grid reference: SP 122062
Level stn. (m OD) 100.65

Catchment area (sq km): 106.7
Max alt. (m OD): 330

Daily mean gauged discharges (cubic metres per second)

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	2.520	2.800	2.390	1.880	1 740	1.130	1.550	1.110	1.030	0.746	0 932	0 812
2	2.560	2 790	2 350	1 850	1.700	1.130	1.540	1.100	1.020	0 739	0 917	0 873
3	2 580	2.790	2.380	1 860	1.670	1.090	1.530	1 090	1 020	0 765	0 904	0 928
4	2.600	2.790	2 330	1.900	1 610	1.110	1.540	1.220	0.997	0 771	0 881	0.955
5	2 560	2 770	2.270	1 990	1.570	1.300	1.520	1 180	0 977	0 774	0 870	1 020
6	2 530	2 740	2 250	2 060	1 500	1.380	1.560	1 110	0 970	0 828	0 847	1 170
7	2.510	2.820	2 240	2.110	1 450	1.350	1 520	1.110	0 968	0 890	0 853	1 420
8	2 460	2 930	2.200	2.180	1 420	1.370	1 520	1 110	0 957	0.896	0 890	1 420
9	2.390	2 850	2.180	2.130	1 390	1 310	1.500	1.120	0 955	.0 919	0 909	1 490
10	2 320	2 830	2.140	2.140	1 370	1.340	1.480	1.110	0 946	0 927	0 879	1.590
11	2.290	2.820	2 110	2.280	1 340	1 380	1 480	1.130	0.946	0 934	0 852	1.700
12	2.230	3.010	2.080	2.290	1 320	1 460	1 470	1 160	0.912	0 943	0 826	1 710
13	2.180	3.010	2 040	2 330	1 340	1.450	1 450	1.120	0 894	0.961	0 819	1 720
14	2.130	2 960	2 010	2.310	1 400	1 440	1.450	1 110	0.886	0 984	0 815	1 710
15	2.110	2.900	2 010	2 310	1 420	1 460	1 450	1 100	0 889	0.990	0 817	1 710
16	2.040	2.850	2 000	2 210	1 340	1 460	1.440	1 110	0 883	0 974	0 823	1 690
17	1 990	2 800	1 980	2 200	1.300	1 470	1.430	1.080	0.877	0.969	0 826	1 700
18	1.980	2.710	1.960	2 180	1 260	1.480	1.440	1 070	0 874	0 984	0 809	1 670
19	1 890	2 640	1 950	2 160	1.250	1.480	1 450	1.060	0.868	0.978	0 808	1 660
20	1.910	2.590	1 930	2 140	1 350	1 420	1.380	1.050	0 859	0 975	0 813	1.660
21	2 250	2 550	1.930	2 130	1 380	1.490	1.370	1.030	0 866	0 979	0 805	1.640
22	2 150	2.520	1.930	2.070	1.350	1 520	1 340	1 030	0 864	0 970	0 805	1 730
23	2 120	2 480	1 930	2 010	1 290	1 500	1.330	1 020	0 821	0 964	0 801	1 790
24	2.200	2 430	1.880	1 990	1 270	1.480	1 250	1 060	0 819	0 957	0 798	2 040
25	2.350	2.410	1.880	1.940	1 250	1.470	1 210	1 060	0 805	0 952	0 804	2.120
26	2.390	2 380	1 860	1 920	1.270	1.520	1 180	1.030	0.790	0 950	0 807	2.300
27	2 470	2 370	1 840	1 890	1 260	1 540	1.190	1 020	0 786	0 938	0 794	2.430
28	2 610	2.360	1 790	1 880	1 220	1.510	1.220	1.040	0 772	0 935	0 785	2 550
29	2 690		1.790	1 860	1.190	1 530	1.210	1.040	0.768	0.937	0.789	2 600
30	2.750		1 820	1 800	1 170	1.540	1.180	1.030	0 757	0 937	0.807	2 670
31	2.770		1 800		1.150		1 140	1.030		0 939		2.680
Average	2.340	2.711	2 040	2 067	1 372	1 404	1.397	1 085	0 892	0 916	0 836	1 715
Lowest	1.890	2.360	1.790	1 800	1 150	1.090	1.140	1.020	0 757	0 739	0 785	0.812
Highest	2 770	3 010	2 390	2.330	1 740	1.540	1 560	1.220	1.030	0.990	0 932	2 680
Peak flow	2 840	3 170	2.500	2 410	2 140	1.640	1.610	1.340	1 080	1 040	0 971	2 810
Day of peak	31	8	1	12	3	12	5	4	1	14	5	30
Monthly total (million cu m)	6 27	6 56	5.46	5.36	3.68	3.64	3.74	2.91	2.31	2 45	2.17	4 59
Runoff (mm)	59	81	51	50	34	34	35	27	22	23	20	43.
Rainfall (mm)	59	48	62	42	86	158	56	88	22	58	57	109

Statistics of monthly data for previous record (Oct 1963 to Dec 1984)

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Mean flows	Avg.	2.016	2 315	2.186	1.732	1 327	1 127	0.842	0 670	0 582	0 648	1 009	1 576
	Low	0 374	0 380	0 383	0 371	0.334	0 290	0 243	0.207	0.202	0 259	0 344	0 375
	(year)	1976	1976	1976	1976	1976	1976	1976	1976	1976	1976	1973	1975
	High	3 196	3 616	3.385	3 415	2 599	2 290	1 372	1 032	0 908	1 299	2 714	3 016
	(year)	1982	1977	1977	1979	1983	1979	1977	1968	1968	1968	1967	1965
Runoff.	Avg.	51	53	55	42	33	27	21	17	14	16	25	40
	Low	9	9	10	9	8	7	6	5	5	7	8	9
	High	80	82	85	83	65	56	34	26	22	33	66	76
Rainfall.	Avg.	74	59	68	49	70	58	57	67	75	62	76	86
	Low	18	8	19	5	23	9	15	23	17	8	34	25
	High	126	159	143	109	161	155	120	149	149	171	163	159

Summary statistics

	For 1985		For record preceding 1985		1985 As % of pre-1985
Mean flow (m^3s^{-1})	1.558		1 331		117
Lowest yearly mean			0.400	1976	
Highest yearly mean			1 771	1966	
Lowest monthly mean	0.836	Nov	0 202	Sep 1976	
Highest monthly mean	2 711	Feb	3 616	Feb 1977	
Lowest daily mean	0.739	2 Oct	0.190	23 Aug 1976	
Highest daily mean	3 010	12 Feb	4 870	22 Dec 1965	
Peak	3.170	8 Feb	5 000	22 Dec 1965	
10 %ile	2 497		2.609		96
50 %ile	1 436		1.075		134
95 %ile	0 806		0.382		211
Annual total (million cu m)	49 13		42 01		117
Annual runoff (mm)	460		394		117
Annual rainfall (mm)	845		801		105
[1941-70 rainfall average (mm)			823]		

Factors affecting flow regime

- Flow influenced by groundwater abstraction and/or recharge.

Station description
Crump weir 9.1 m broad

040003 Medway at Teston 1985

Measuring authority: SWA
First year: 1956

Grid reference TQ 708530
Level stn. (m OD) 7 01

Catchment area (sq km): 1256.1
Max alt. (m OD): 267

Daily mean gauged discharges (cubic metres per second)

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	15 450	19.840	10.110	22 430	5.669	3.322	3.122	2 728	2.942	2.492	2 346	9.661
2	12 460	16 480	11.400	17 370	5 174	3 258	3 058	2.600	3.214	3.214	2 301	6 557
3	10 110	14.240	19.270	11 620	4 958	3.222	2 713	3.097	3.625	3 625	2.106	5.397
4	8 899	13 020	28 900	12 310	4 687	3 782	2 752	11.930	3.722	3 722	2 191	10.190
5	8 120	11.940	15 090	11 510	5.518	4 569	2 762	19.340	3.522	3 522	2 725	22 430
6	7.928	10 750	11 110	11.020	3 813	4 815	2 967	6 469	2 923	2 429	2 890	24 360
7	70 350	10 220	9 582	27 100	4.491	4.236	2.884	4 162	2.830	5 906	2.130	30 630
8	7.327	37 460	7.823	39 550	4 292	3.289	2.656	3.989	2.746	3.593	2.788	23.620
9	6 699	35 120	7.872	25 000	4 520	4.182	2.550	14 620	2.747	5.514	6 669	21 480
10	6.428	24 230	3.920	18 430	4.557	4.790	2 458	23 800	2.992	2 883	6 199	14.350
11	6 313	17.960	6 617	54 010	4 089	5.110	2 482	19 790	2 719	1.851	2.616	10 590
12	8 657	14 430	6 259	43 610	4.372	6 307	2 679	18.340	2.744	2 077	2 216	8 399
13	6 754	11 990	6.352	25 580	5 243	5 084	2 921	11.400	2 700	2 318	2.653	6 207
14	6 401	8.850	6 452	18.320	17 260	5 350	4 901	9 423	2 484	1.613	3 233	7 510
15	6 460	8 218	5 982	15 500	21 610	4.739	2.826	8 813	2 538	3 343	2 697	6 417
16	6.141	7 046	6 845	11 690	8 562	4 082	2 910	11 430	2 459	2.412	3 285	4.786
17	6.157	8 164	7 350	10.380	6 704	2 866	3 186	14 680	2.347	2 623	9 589	5.655
18	6 811	7 391	8 484	9 378	5 397	2 876	2 923	9.454	2 523	2.642	5.896	6.114
19	6 799	7 409	6 075	8 865	5.837	3 228	2 979	7 690	2.376	2 208	3 272	5 462
20	8 217	8.207	6 034	9 062	14.820	5 061	3.412	7 130	2 383	2 469	4 221	5.130
21	99 300	7 788	5 038	11 540	14 820	5 000	3.155	6 882	2.557	3 940	4.509	4 975
22	131 300	9 064	10.300	7 724	9 921	6 118	3 181	7.668	2 520	2 200	5 072	4.677
23	58 860	9 792	11 000	7 126	6 133	6 182	3 503	7 346	2.524	2 340	4 215	4 765
24	27 840	9 703	10 030	6 710	5.356	20.280	2 776	19 880	2.615	2 409	4 414	18 400
25	57 020	10 990	10 580	5 853	5 090	14 570	2 961	13 410	2 435	2 481	4.112	48 420
26	65 420	8.797	26 360	5 878	5.827	7 378	2 808	9 110	2.452	2 366	3 201	138 800
27	28 600	8.285	28 860	6 048	7 427	5 494	2.061	6 680	2 290	2 334	2 947	188.500
28	31 890	8 145	15 540	6 007	5 134	8 494	2 721	6 265	2 371	2 588	2 726	21 830
29	25.810		9 774	5.771	4 397	4.033	3.308	6 266	2 311	2 361	3 112	19 750
30	24 560		13 530	5.819	3 403	3 778	3 640	5.970	2 561	2 292	13 810	16 110
31	24 750		9.853		3 482		3.268	5 628		2 348		13 270
Average	25 670	13 050	11 040	15.710	6.857	5 517	2 985	9 871	2 706	2 842	4 005	23 050
Lowest	6 141	7 046	3.920	5.771	3 403	2 866	2 061	2 600	2 290	1 613	2 106	4 677
Highest	131 300	37 460	28 900	54 010	21.610	20 280	4 901	23 800	3 722	5 906	13.810	188.500
Peak flow	155 300	59 340	44 160	83 630	34 130	31 980	8.127	34 670	7 391	10 030	17 140	198 700
Day of peak	22	8	4	25	15	25	23	10	1	20	30	27
Monthly total (million cu m)	68 76	31 58	29 58	40 71	18 37	14 30	7 99	26 44	7 01	7 61	10 38	61 73
Runoff (mm)	55	25	24	32	15	11	6	21	6	6	8	49
Rainfall (mm)	66	28	55	58	55	77	53	112	14	28	65	123

Statistics of monthly data for previous record (Oct 1956 to Dec 1984—incomplete or missing months total 1 6 years)

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Mean flows	Avg	22.240	19 530	15 080	10 300	7 150	4 868	2 866	3 156	5 187	7.649	16.000	19 830
	Low	4 910	5 260	3.382	2 328	1 749	1 139	1 116	0 577	1 066	1 402	2 341	4 362
	(year)	1973	1981	1976	1976	1976	1976	1976	1976	1959	1972	1978	1971
	High	45 370	49 150	31.600	23 470	20 820	21 690	7 550	7 888	30 090	37 860	66.830	37 330
	(year)	1975	1957	1975	1983	1978	1964	1980	1958	1968	1960	1960	1965
Runoff	Avg	47	38	32	21	15	10	6	7	11	16	33	42
	Low	10	10	7	5	4	2	2	1	2	3	5	9
	High	97	95	67	48	44	45	16	17	62	81	138	80
Rainfall	Avg	72	51	57	48	55	54	52	57	74	74	83	82
	Low	13	3	3	7	21	8	20	10	5	5	14	23
	High	135	123	113	108	112	127	103	122	183	185	169	168

Summary statistics

	For 1985		For record preceding 1985		1985 As % of pre-1985
Mean flow (m^3s^{-1})	10 290		11 110		93
Lowest yearly mean			7.584	1962	
Highest yearly mean			19.330	1960	
Lowest monthly mean	2.706	Sep	0 577	Aug 1976	
Highest monthly mean	25 670	Jan	66.830	Nov 1960	
Lowest daily mean	1 613	14 Oct	0 220	4 Sep 1973	
Highest daily mean	188 500	27 Dec	269 300	4 Nov 1960	
Peak	198 700	27 Dec	294.500	4 Nov 1960	
10 %ile	20 530		25 330		81
50 %ile	5 911		5 074		116
95 %ile	2.345		1 434		164
Annual total (million cu m)	324.50		350 60		93
Annual runoff (mm)	258		279		93
Annual rainfall (mm)	734		759		97
[1941-70 rainfall average (mm)			758]		

Factors affecting flow regime

- Reservoir(s) in catchment
- Flow influenced by groundwater abstraction and/or recharge.
- Abstraction for public water supplies.

Station description

Low and medium flows measured at group of weirs and sluices with navigation lock: high flows measured at velocity-area alternative station 040203, East Farleigh

041016 Cuckmere at Cowbeech 1985

Measuring authority: SWA
First year: 1967
Grid reference: TQ 611150
Level stn. (m OD) 29.78
Catchment area (sq km): 18.7
Max alt. (m OD): 183

Daily mean gauged discharges (cubic metres per second)

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0 336	0.372	0.329	0 695	0 124	0.079	0 088	0 048	0 077	0 045	0 053	0 208
2	0 271	0 342	0 395	0 357	0 119	0 076	0 085	0 050	0 099	0 044	0.038	0 195
3	0 258	0 305	0 566	0.301	0 114	0.078	0 084	0 082	0 094	0 057	0 037	0.270
4	0 238	0.303	0 359	0 277	0 114	0 129	0 055	0 881	0.103	0 048	0 037	0 948
5	0 219	0 272	0 223	0 256	0 114	0.088	0 052	0 592	0 095	0 065	0 060	1.173
6	0 212	0.235	0 203	0 238	0 104	0 093	0 048	0 212	0 089	0 057	0.045	1 195
7	0 181	0 264	0.186	0.536	0 096	0 094	0 047	0 196	0 083	0 066	0 043	0 821
8	0 187	0 750	0 179	0 428	0 087	0 113	0 046	0 174	0 077	0 120	0 066	1 410
9	0 182	0 840	0 177	0 292	0 088	0 187	0 045	0 790	0 072	0 145	0 317	0 993
10	0.167	0 444	0 172	0 240	0 087	0 097	0 044	1 080	0 067	0.073	0 137	0.474
11	0.158	0 319	0.156	0 907	0 085	0 089	0 044	0 289	0 062	0 064	0 079	0.362
12	0 166	0 267	0 146	0 409	0 105	0.082	0 044	0.175	0.058	0 056	0 066	0 258
13	0.160	0 223	0.144	0 336	0 106	0 082	0 052	0 156	0 054	0 062	0 071	0 239
14	0 150	0 202	0 150	0 289	0 543	0.061	0 063	0.157	0.060	0 065	0 086	0 238
15	0.149	0 192	0 138	0 257	0 335	0 060	0 047	0 105	0 056	0 059	0 095	0 215
16	0.143	0 174	0.136	0 233	0.167	0 065	0 049	0 117	0 055	0 059	0 174	0 203
17	0 146	0 178	0 136	0 210	0 117	0 078	0 045	0 114	0 056	0 050	0 655	0 223
18	0 146	0 184	0.119	0 187	0.103	0 076	0 058	0 116	0 057	0 049	0 182	0 206
19	0 145	0 180	0 123	0 179	0 098	0.150	0 056	0 113	0 058	0 048	0 135	0 144
20	0 597	0 179	0.131	0 373	0 096	0 080	0 057	0 104	0 053	0 058	0 082	0 132
21	3 340	0 185	0 141	0 312	0 107	0 241	0 051	0 107	0 060	0 058	0.081	0.120
22	0 561	0 188	0.175	0.204	0 144	0 161	0 059	0 105	0 054	0 054	0 090	0 112
23	0 368	0 199	0.124	0 159	0 114	0.123	0 047	0 158	0 050	0 044	0 083	0 196
24	0 755	0.199	0 106	0.157	0 097	0 147	0 043	0 463	0 049	0 028	0 076	0 796
25	1.337	0 199	0.128	0 153	0 093	0.099	0 039	0 175	0 049	0 026	0 069	3.656
26	0 679	0 188	0.430	0 147	0 103	0 291	0 047	0.142	0 051	0 034	0 062	3.626
27	0 401	0 184	0 420	0 144	0 100	0.134	0 045	0 113	0 045	0 027	0.088	0 832
28	0 470	0.178	0 266	0.133	0 092	0.110	0 067	0 087	0 044	0 031	0 102	0 470
29	0 622		0 218	0 130	0 089	0.106	0 055	0 080	0 044	0 035	0 354	0 333
30	0.562		0 411	0.131	0 086	0 097	0 081	0 089	0 047	0 048	0 424	0 290
31	0 442		0 719		0.082		0 060	0 077		0 047		0 363
Average	0 444	0 277	0 236	0 289	0.126	0 112	0 055	0 230	0 064	0 056	0 130	0 668
Lowest	0 143	0 174	0 106	0 130	0 082	0 060	0 039	0 048	0 044	0 026	0 037	0 112
Highest	3.340	0 840	0 719	0 907	0 543	0.291	0 088	1 080	0 103	0 145	0 655	3 656
Peak flow	9.528	1.231	1.090	1 371	0 842	0.704	0 132	4 192	0 132	0 384	2 067	16 800
Day of peak	21	9	3	11	14	26	30	10	4	8	17	26
Monthly total (million cu m)	1.19	0 67	0 63	0.75	0.34	0.29	0 15	0.62	0 17	0 15	0 34	1 79
Runoff (mm)	64	36	34	40	18	16	8	33	9	8	18	96
Rainfall (mm)	69	30	67	55	50	85	60	144	18	41	89	138

Statistics of monthly data for previous record (Jun 1967 to Dec 1984—incomplete or missing months total 0.2 years)

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Mean flows	Avg	0 424	0 352	0 267	0 151	0 109	0 071	0 047	0 034	0 064	0.162	0 310	0.319
	Low	0 087	0.068	0.053	0 027	0 018	0 009	0 013	0 009	0 013	0 014	0 013	0 031
	(year)	1973	1981	1973	1976	1976	1976	1976	1976	1978	1978	1973	1971
	High	0 803	0 755	0 574	0 363	0.286	0 393	0 322	0.154	0 394	0 500	0.854	0.695
	(year)	1984	1974	1981	1983	1983	1971	1980	1980	1974	1982	1974	1984
Runoff	Avg	61	46	38	21	16	10	7	5	9	23	43	46
	Low	13	9	8	4	3	1	2	1	2	2	2	4
	High	115	98	82	50	41	54	46	22	55	72	118	100
Rainfall (1939-1984)	Avg	89	63	63	50	58	58	62	74	81	94	107	92
	Low	15	1	1	3	17	6	8	1	5	5	11	21
	High	183	181	194	109	144	155	131	194	222	244	238	229

Summary statistics

	For 1985		For record preceding 1985		1985 As % of pre-1985
Mean flow (m^3s^{-1})	0 224		0.192		117
Lowest yearly mean			0 050	1973	
Highest yearly mean			0.278	1974	
Lowest monthly mean	0 055	Jul	0 009	Jun 1976	
Highest monthly mean	0.668	Dec	0.854	Nov 1974	
Lowest daily mean	0 026	25 Oct	0 003	21 Jun 1976	
Highest daily mean	3.656	25 Dec	8.487	4 Nov 1967	
Peak	16 800	26 Dec	18 120	4 Nov 1967	
10 %ile	0 442		0 443		100
50 %ile	0 124		0 078		160
95 %ile	0.045		0 012		381
Annual total (million cu m)	7 07		6 05		117
Annual runoff (mm)	378		324		117
Annual rainfall (mm)	846		891		95
[1941-70 rainfall average (mm)			821]		

Factors affecting flow regime

- Flow influenced by groundwater abstraction and/or recharge.
- Abstraction for public water supplies.

Station description

Compound Crump weir, crest breadths 2.13 m and 2.97 m. Structure operational from 1967. Limited low flow records, from April 1939, are available from the measuring authority.

042010 Itchen at Highbridge 1985

Measuring authority: SWA
First year: 1958

Grid reference: SU 467213
Level stn. (m OD): 17.15

Catchment area (sq km): 360.0
Max alt. (m OD): 208

Daily mean gauged discharges (cubic metres per second)

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	4.967	5.364	5.283	4.848	4.290	3.757	3.682	3.383	3.330	2.831	2.673	2.904
2	4.957	5.311	5.267	4.611	4.344	3.675	3.688	3.478	3.540	2.880	2.773	3.302
3	4.979	5.302	5.368	4.514	4.350	3.593	3.657	3.656	3.613	3.107	2.800	3.171
4	4.961	5.380	5.348	4.471	4.401	3.838	3.558	4.441	3.562	3.150	2.858	3.053
5	4.948	5.425	5.234	4.462	4.380	4.038	3.700	4.523	3.436	3.081	2.876	3.621
6	4.923	5.459	5.095	4.484	4.380	4.075	3.609	3.898	3.414	3.159	2.853	3.930
7	4.906	6.028	5.052	4.700	4.216	4.050	3.539	3.837	3.348	3.419	2.877	4.009
8	4.922	6.402	4.982	4.825	4.052	4.028	3.446	3.766	3.280	3.265	3.020	3.710
9	4.918	6.527	4.979	4.560	4.010	4.059	3.294	3.817	3.313	3.226	3.124	3.643
10	4.892	6.132	4.909	4.487	4.000	4.058	3.240	3.947	3.237	3.021	2.995	3.437
11	4.866	5.747	4.818	4.832	4.058	4.039	3.355	3.874	3.259	3.009	2.915	3.429
12	4.835	5.654	4.813	4.690	4.050	4.062	3.312	3.857	3.206	2.964	2.976	3.404
13	4.835	5.615	4.800	4.650	4.031	3.995	3.195	3.772	3.192	2.921	2.889	3.354
14	4.806	5.505	4.800	4.535	4.330	3.865	3.334	3.634	3.167	2.809	2.853	3.232
15	4.797	5.495	4.774	4.395	4.439	3.792	3.266	3.630	3.114	2.839	2.799	3.218
16	4.767	5.449	4.776	4.506	4.120	3.747	3.443	3.715	3.094	2.838	2.814	3.206
17	4.719	5.421	4.765	4.554	3.981	3.684	3.381	3.686	2.982	2.762	2.955	3.212
18	4.702	5.414	4.718	4.558	3.968	3.712	3.480	3.682	3.018	2.705	2.894	3.231
19	4.695	5.413	4.679	4.573	3.937	4.598	3.607	3.720	2.863	2.615	2.766	3.216
20	4.777	5.418	4.635	4.576	3.961	4.138	3.592	3.667	2.948	2.636	2.686	3.188
21	7.009	5.412	4.639	4.576	4.034	4.377	3.516	3.669	2.936	2.587	2.611	3.190
22	6.143	5.412	4.874	4.531	4.064	4.377	3.528	3.590	2.906	2.607	2.641	3.326
23	5.548	5.375	4.870	4.526	4.064	4.125	3.460	3.617	2.843	2.628	2.642	3.491
24	5.375	5.357	4.770	4.497	4.064	4.081	3.317	3.739	2.927	2.585	2.642	3.743
25	5.654	5.357	4.613	4.547	4.053	4.094	3.197	3.525	2.904	2.578	2.642	4.241
26	5.544	5.334	4.714	4.556	4.252	4.141	2.993	3.366	2.894	2.605	2.642	5.680
27	5.461	5.320	4.656	4.556	4.516	3.924	3.103	3.288	2.861	2.607	2.642	4.491
28	5.769	5.297	4.553	4.504	4.174	3.875	3.579	3.198	2.796	2.586	2.642	4.185
29	5.560		4.423	4.556	3.952	3.838	3.911	3.185	2.761	2.578	2.740	4.042
30	5.507		4.496	4.546	3.922	3.792	3.798	3.281	2.805	2.677	2.897	3.932
31	5.450		4.563		3.860		3.592	3.257		2.687		4.114
Average	5.167	5.547	4.847	4.574	4.137	3.981	3.463	3.668	3.118	2.837	2.805	3.610
Lowest	4.695	5.297	4.423	4.395	3.860	3.593	2.993	3.185	2.761	2.578	2.611	2.904
Highest	7.009	6.527	5.368	4.848	4.516	4.598	3.911	4.523	3.613	3.419	3.124	5.680
Peak flow												
Day of peak												
Monthly total (million cu m)	13.84	13.42	12.98	11.86	11.08	10.32	9.28	9.82	8.08	7.60	7.27	9.67
Runoff (mm)	38	37	36	33	31	29	26	27	22	21	20	27
Rainfall (mm)	82	38	59	48	50	88	68	120	19	30	55	153

Statistics of monthly data for previous record (Oct 1958 to Dec 1984)

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Mean flows	Avg	6.541	7.183	7.053	6.536	5.756	4.891	4.174	3.856	3.733	4.183	4.914	5.785
	Low	4.211	4.162	3.644	3.203	3.093	2.582	2.474	2.331	2.669	2.702	2.840	3.136
	(year)	1976	1964	1976	1976	1976	1976	1976	1976	1973	1959	1973	1973
	High	10.520	10.850	9.923	8.521	7.312	6.550	5.219	5.245	5.128	7.867	9.857	10.860
	(year)	1969	1969	1977	1969	1966	1979	1979	1979	1968	1960	1960	1960
Runoff	Avg	49	49	52	47	43	35	31	29	27	31	35	43
	Low	31	29	27	23	23	19	18	17	19	20	20	23
	High	78	73	74	61	54	47	39	39	37	59	71	81
Rainfall (1971-1984)	Avg	93	58	85	43	75	60	54	52	93	76	83	84
	Low	39	19	24	2	19	10	22	18	21	30	31	25
	High	159	137	172	97	131	113	87	89	195	177	197	138

Summary statistics

	For 1985		For record preceding 1985		1985 As % of pre-1985
Mean flow (m^3s^{-1})	3.971		5.374		74
Lowest yearly mean			3.708	1973	
Highest yearly mean			6.594	1960	
Lowest monthly mean	2.805	Nov	2.331	Aug 1976	
Highest monthly mean	5.547	Feb	10.860	Dec 1960	
Lowest daily mean	2.578	25 Oct	2.167	24 Aug 1976	
Highest daily mean	7.009	21 Jan	12.800	29 Jan 1969	
Peak					
10 %ile	5.348		7.784		69
50 %ile	3.877		4.941		78
95 %ile	2.672		3.084		87
Annual total (million cu m)	125.20		169.60		74
Annual runoff (mm)	348		471		74
Annual rainfall (mm)	810		856		95
[1941-70 rainfall average (mm)			876]		

Factors affecting flow regime

- Flow influenced by groundwater abstraction and/or recharge.
- Abstraction for public water supplies
- Augmentation from surface water and/or groundwater

Comment

The 1985 flows do not include the discharge over the subsidiary weir at Allbrook. Total catchment runoff is consequently underestimated by about 25%. The pre-1985 statistics relate to the combined Highbridge and Allbrook record.

Station description

Velocity-area station until 1971 when simple Crump weir, 7.75 m crest installed. Complementary rectangular thin plate weir at Allbrook, on former Itchen Navigation Canal

043005 Avon at Amesbury 1985

Measuring authority: WWA
First year: 1965
Grid reference: SU 151413
Level stn (m OD): 67.06
Catchment area (sq km): 323.7
Max alt (m OD): 294

Daily mean gauged discharges (cubic metres per second)

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	6.105	6.932	6.001	5.058	4.069	2.846	2.458	1.935	1.784	1.576	1.590	1.648
2	5.906	6.884	5.971	4.796	4.048	2.777	2.326	1.907	1.958	1.574	1.576	1.877
3	5.791	6.793	6.032	4.763	3.992	2.702	2.252	1.905	2.122	1.617	1.568	2.150
4	5.771	6.804	5.902	4.700	3.950	2.778	2.221	2.212	2.168	1.626	1.566	2.144
5	5.672	6.770	5.581	4.671	3.955	2.999	2.073	2.643	2.030	1.626	1.611	3.199
6	5.532	6.712	5.455	4.707	3.938	4.935	2.068	2.468	1.904	1.701	1.571	5.128
7	5.476	7.482	5.588	4.963	3.818	5.391	2.047	2.294	1.866	1.948	1.587	4.498
8	5.421	9.375	5.483	5.442	3.739	4.110	2.019	2.183	1.876	1.987	1.624	3.546
9	5.370	10.700	5.357	5.002	3.667	3.635	2.005	2.120	1.874	1.940	1.747	3.019
10	5.263	8.666	5.243	4.810	3.600	3.449	1.989	2.029	1.812	1.850	1.732	2.887
11	5.165	7.796	5.113	5.159	3.576	3.242	1.965	2.002	1.731	1.782	1.656	2.810
12	5.086	7.344	5.048	5.200	3.593	3.218	1.967	1.993	1.747	1.733	1.597	2.763
13	4.995	7.140	5.037	4.978	3.563	3.113	1.965	1.987	1.715	1.684	1.577	2.712
14	4.907	7.032	4.985	4.772	3.596	3.009	1.973	2.107	1.702	1.654	1.581	2.626
15	4.879	6.933	4.871	4.613	3.722	2.881	1.980	2.131	1.701	1.662	1.587	2.500
16	4.837	6.863	4.979	4.574	3.545	2.800	1.977	2.042	1.704	1.652	1.625	2.458
17	4.828	6.887	4.864	4.487	3.443	2.650	1.969	1.952	1.701	1.648	1.670	2.487
18	4.811	6.773	4.818	4.501	3.349	2.621	1.967	1.926	1.673	1.641	1.660	2.517
19	4.737	6.751	4.793	4.487	3.303	2.642	1.980	1.939	1.688	1.635	1.609	2.494
20	4.803	6.711	4.642	4.464	3.422	2.623	2.035	1.921	1.665	1.649	1.584	2.488
21	8.390	6.753	4.801	4.461	3.716	2.729	2.019	2.021	1.643	1.626	1.481	2.506
22	11.230	6.748	4.852	4.416	3.669	2.802	2.003	1.998	1.640	1.706	1.449	2.631
23	7.167	6.697	4.812	4.399	3.439	2.780	1.924	2.009	1.615	1.583	1.439	2.852
24	6.628	6.580	4.741	4.256	3.333	2.821	1.849	2.056	1.620	1.614	1.431	4.271
25	7.050	6.416	4.687	4.229	3.247	2.796	1.801	2.117	1.601	1.597	1.421	4.962
26	8.444	6.257	4.988	4.238	3.249	2.711	1.765	2.031	1.606	1.591	1.427	7.665
27	7.072	6.068	5.210	4.223	3.520	2.663	1.792	1.990	1.593	1.594	1.427	6.484
28	7.632	5.969	4.710	4.157	3.487	2.581	1.881	1.848	1.584	1.592	1.417	5.012
29	7.198		4.732	4.206	3.216	2.524	1.966	1.828	1.601	1.602	1.438	4.729
30	7.158		4.829	4.117	3.047	2.476	2.072	1.806	1.599	1.595	1.518	4.550
31	7.038		4.782		2.910		1.998	1.771		1.600		4.942
Average	6.141	7.101	5.126	4.628	3.572	3.043	2.010	2.038	1.751	1.674	1.559	3.437
Lowest	4.737	5.969	4.642	4.117	2.910	2.476	1.765	1.771	1.584	1.574	1.417	1.648
Highest	11.230	10.700	6.032	5.442	4.069	5.391	2.458	2.643	2.168	1.987	1.747	7.665
Peak flow	14.100	11.680	6.078	5.694	4.180	5.895	2.583	2.796	2.261	2.050	1.820	8.447
Day of peak	22	9	3	8	6	7	1	5	4	8	9	26
Monthly total (million cu m)	16.45	17.18	13.73	12.00	9.57	7.89	5.38	5.46	4.54	4.48	4.04	9.21
Runoff (mm)	51	53	42	37	30	24	17	17	14	14	12	28
Rainfall (mm)	66	38	57	38	57	100	54	101	29	34	43	134

Statistics of monthly data for previous record (Feb 1965 to Dec 1984)

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Mean flows	Avg	5.243	5.898	5.629	4.519	3.478	2.686	2.014	1.692	1.599	1.922	2.628	3.966
	Low	1.199	1.187	1.158	1.039	0.834	0.626	0.475	0.372	0.644	1.149	1.090	1.385
	(year)	1976	1976	1976	1976	1976	1976	1976	1976	1976	1970	1973	1975
	High	8.555	9.686	8.352	7.587	5.146	4.280	3.021	2.362	2.528	3.521	6.440	7.260
	(year)	1982	1977	1972	1979	1979	1979	1971	1979	1974	1966	1974	1982
Runoff	Avg	43	44	47	36	29	22	17	14	13	16	21	33
	Low	10	9	10	8	7	5	4	3	5	10	9	11
	High	71	72	69	61	43	34	25	20	20	29	52	60
Rainfall	Avg	79	55	68	44	63	56	48	60	73	67	77	86
	Low	18	6	14	1	24	3	15	22	11	4	31	26
	High	134	134	150	100	121	143	113	152	179	161	185	160

Summary statistics

	For 1985		For record preceding 1985		1985 As % of pre-1985
Mean flow (m^3s^{-1})	3.485		3.427		102
Lowest yearly mean			1.431	1976	
Highest yearly mean			4.476	1977	
Lowest monthly mean	1.559	Nov	0.372	Aug 1976	
Highest monthly mean	7.101	Feb	9.686	Feb 1977	
Lowest daily mean	1.417	28 Nov	0.175	22 Aug 1976	
Highest daily mean	11.230	22 Jan	15.540	25 Feb 1977	
Peak	14.100	22 Jan	17.330	16 Mar 1982	
10 %ile	6.452		6.611		98
50 %ile	2.797		2.827		99
95 %ile	1.578		1.145		138
Annual total (million cu m)	109.90		108.10		102
Annual runoff (mm)	340		334		102
Annual rainfall (mm)	751		776		97
[1941-70 rainfall average (mm)			764]		

Factors affecting flow regime

- Natural to within 10% at 95 percentile flow.

Station description

Crump weir 9.14 m broad with a broad crested weir on both sides

045001 Exe at Thorverton 1985

Measuring authority: SWWA
First year: 1956

Grid reference SS 936016
Level stn. (m OD) 25.85

Catchment area (sq km): 600.9
Max alt. (m OD): 519

Daily mean gauged discharges (cubic metres per second)

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	19.040	33.160	6.737	24.310	6.108	2.910	7.977	5.726	9.887	4.289	3.886	7.474
2	17.090	32.310	6.521	23.150	5.863	2.842	7.147	7.096	19.150	4.476	3.873	11.140
3	15.170	28.620	8.397	24.890	5.586	2.773	6.473	7.282	16.240	8.748	3.698	10.150
4	13.640	25.630	6.944	27.990	5.179	2.756	5.979	43.700	24.570	6.008	3.653	13.850
5	12.000	22.170	5.916	30.860	5.120	2.705	5.677	38.610	24.000	5.293	3.799	22.120
6	10.890	20.530	5.883	31.140	5.167	3.488	5.161	25.960	20.450	21.330	3.800	45.490
7	9.805	33.870	8.923	56.160	4.771	3.416	4.703	24.640	18.060	21.760	4.069	40.040
8	9.125	45.510	7.435	60.560	4.434	2.995	4.501	19.980	16.170	27.080	6.160	32.780
9	9.383	47.990	6.865	48.080	4.218	3.438	4.263	21.060	13.750	24.470	8.529	25.910
10	8.431	37.960	6.684	37.940	4.096	3.578	4.075	17.310	11.790	21.060	7.661	24.420
11	7.696	30.910	6.291	42.930	3.975	3.143	3.700	36.710	10.280	18.300	6.434	21.380
12	6.992	24.770	6.116	35.930	3.880	5.630	3.605	32.200	9.199	15.610	6.085	17.920
13	6.422	20.120	6.182	37.140	3.686	3.883	3.562	28.410	8.236	13.420	5.783	24.530
14	6.085	16.900	5.998	32.740	3.578	3.380	3.456	28.130	8.024	11.740	6.508	24.980
15	5.892	14.210	6.273	30.270	3.415	3.209	3.241	24.480	7.513	10.500	6.812	22.530
16	5.554	12.160	6.465	26.050	3.294	3.247	4.257	21.220	7.150	9.468	6.399	20.290
17	5.386	10.750	6.128	21.770	3.162	3.264	3.450	18.360	7.409	8.699	6.773	20.830
18	5.581	9.721	5.740	18.480	3.058	3.458	3.830	16.880	6.732	7.986	6.173	19.320
19	5.296	8.779	5.629	15.960	3.124	3.599	4.558	16.140	6.323	7.313	5.988	16.650
20	8.506	8.467	7.489	13.890	3.308	3.224	4.310	14.960	5.841	6.765	5.884	16.990
21	46.540	8.098	14.310	13.660	6.508	6.203	4.098	14.160	8.055	6.277	6.466	21.110
22	27.300	7.664	15.060	11.650	5.344	19.560	9.372	12.780	10.580	5.884	6.149	30.260
23	20.100	7.251	15.740	10.200	3.948	17.460	6.663	17.870	6.763	5.581	5.771	53.910
24	20.960	6.785	15.900	8.936	3.961	17.570	5.632	27.070	6.417	5.237	5.996	91.430
25	28.830	6.396	15.430	8.362	4.007	13.940	5.157	24.680	5.768	4.962	5.555	102.300
26	27.900	6.145	24.350	7.936	4.002	13.260	4.881	20.170	5.335	4.770	5.415	149.200
27	35.400	5.892	21.240	7.422	5.315	10.660	5.198	17.780	5.056	4.532	5.702	75.350
28	40.040	5.728	19.370	6.951	4.596	9.915	7.117	16.440	4.888	4.383	5.412	46.850
29	42.760		20.020	7.010	3.609	10.630	8.309	13.860	4.726	4.252	5.927	34.120
30	38.850		20.820	6.588	3.315	8.922	7.127	12.180	4.560	4.097	6.833	28.220
31	35.350		19.190		3.085		6.244	11.350		3.986		29.720
Average	17.810	19.230	10.780	24.300	4.281	6.502	5.281	20.550	10.360	9.944	5.706	35.520
Lowest	5.296	5.728	5.629	6.588	3.058	2.705	3.241	5.726	4.560	3.986	3.653	7.474
Highest	46.540	47.990	24.350	60.560	6.508	19.560	9.372	43.700	24.570	27.080	8.529	149.200
Peak flow	61.110	60.930	27.000	66.320	9.575	27.090	11.040	93.230	35.080	55.500	10.050	203.300
Day of peak	21	9	26	8	22	23	22	4	4	6	9	26
Monthly total (million cu m)	47.69	46.53	28.86	62.98	11.47	16.85	14.15	55.05	26.86	26.64	14.79	95.15
Runoff (mm)	79	77	48	105	19	28	24	92	45	44	25	158
Rainfall (mm)	95	53	104	104	59	117	77	181	69	69	70	208

Statistics of monthly data for previous record (May 1958 to Dec 1984)

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Mean flows	Avg	29.530	26.300	18.980	12.360	9.013	5.575	4.543	6.054	9.237	16.690	22.400	30.690
	Low	5.438	6.451	6.376	4.340	2.593	1.989	1.153	0.696	1.699	1.561	5.297	12.460
	(year)	1963	1965	1962	1974	1976	1975	1976	1976	1972	1978	1978	1963
	High	57.190	47.220	49.630	28.800	29.380	15.870	19.770	17.140	35.830	59.830	44.000	68.440
	(year)	1984	1957	1981	1966	1983	1958	1968	1958	1974	1960	1970	1965
Runoff	Avg	132	107	85	53	40	24	20	27	40	74	97	137
	Low	24	26	28	19	12	9	5	3	7	7	23	56
	High	255	190	221	124	131	68	88	76	155	267	190	305
Rainfall	Avg	146	104	102	71	80	70	80	95	115	123	132	154
	Low	30	8	18	7	25	9	19	31	13	13	48	51
	High	297	196	222	163	175	160	174	157	254	300	239	321

Summary statistics

	For 1985		For record preceding 1985		1985 As % of pre-1985
Mean flow (m^3s^{-1})	14.170		15.910		89
Lowest yearly mean			9.698	1964	
Highest yearly mean			22.600	1960	
Lowest monthly mean	4.281	May	0.696	Aug 1976	
Highest monthly mean	35.520	Dec	68.440	Dec 1965	
Lowest daily mean	2.705	5 Jun	0.440	28 Aug 1976	
Highest daily mean	149.200	26 Dec	282.200	4 Dec 1960	
Peak	203.300	26 Dec	492.600	4 Dec 1960	
10 %ile	30.480		37.740		81
50 %ile	7.760		9.697		80
95 %ile	3.310		1.850		179
Annual total (million cu m)	446.90		502.10		89
Annual runoff (mm)	744		836		89
Annual rainfall (mm)	1206		1272		95
[1941-70 rainfall average (mm)			1326]		

Factors affecting flow regime

- Flow influenced by groundwater abstraction and/or recharge.
- Abstraction for public water supplies.
- Flow reduced by industrial and/or agricultural abstractions.
- Augmentation from effluent returns.

Station description
Velocity-area station. Modified in 1973 by the construction of a low level bed control

047001 Tamar at Gunnislake 1985

Measuring authority: SWWA
First year: 1956
Grid reference SX 426725
Level stn. (m OD) 8.21
Catchment area (sq km): 916.9
Max alt (m OD) 586

Daily mean gauged discharges (cubic metres per second)

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	28.280	44 410	8.233	35 300	8.273	3 780	5 929	3.521	12 230	5.511	5.379	39 930
2	24 570	42.640	8 688	31 250	8 602	3.670	5 452	3.459	27 020	7 808	5 422	57 280
3	21.430	34 940	11.040	45 060	7 967	3 482	4 893	4 460	22 270	23 440	5.209	37 880
4	18.990	30.040	9 515	70.350	7 491	3 440	4 579	19.720	24 280	11 730	5.407	42 490
5	16 890	25 970	8 041	66 700	8 114	3 449	4 417	26 330	23 920	9 390	5 601	57 750
6	15.170	23 020	7 775	53.020	8.898	3 600	4 167	15 890	18 460	54 740	5.270	86.130
7	14 140	42.360	13.190	133 200	7.400	3 574	3 876	13 450	16.700	38.440	7.981	64 270
8	13 150	52 940	10 760	108 400	6.605	3 287	3 697	12 310	15 430	34 970	16.100	47 860
9	14 220	61.400	9.544	60 370	6 298	3 852	3 633	14.220	14 040	30.210	17.790	36 330
10	13 480	37 440	9.136	43 760	6 276	4 283	3 576	12.230	12 480	21 680	16 660	34 650
11	11 920	29 360	8.794	48.870	5.901	3.605	3 452	50 070	11 250	18.880	14 210	31 340
12	10 730	24 520	8 423	37 920	5 607	3 905	3 400	28 810	10 370	16 640	13 240	26 150
13	9.977	20 940	8 537	42 820	5.559	3 819	3.325	23.810	9 397	14 430	11 580	26 410
14	9 001	18 200	8 455	32 500	5 398	3 198	3 288	40 440	9 202	12.880	15 640	28 180
15	8 724	15 860	8 942	29 720	5 084	2 915	3 174	29 370	8 716	11 890	17 260	22.910
16	8 107	14 360	9.346	25 660	4 807	2.763	3 114	25 940	9 060	11.100	15 460	20 060
17	8.151	13.270	8.627	22 430	4.589	2 730	2 946	20 680	10 400	10 450	17 980	20 920
18	8 375	12.190	7.736	19 950	4 395	2 804	3 123	18 420	9 058	9 764	14 250	23.390
19	8.015	11 390	7 423	18 020	4.317	2.670	3.471	16 910	8.311	9.042	13.290	19 220
20	35 140	10 960	12 710	16 220	4 641	2.946	3 341	15 270	7 645	8 493	12 340	18 370
21	115 400	10 630	26.940	15 780	7 144	11.160	3 172	17 110	7.557	7 966	11.670	44.010
22	47 890	10 070	25 790	14 430	11.540	28 810	4.037	16.120	18 190	7.540	10 850	68 170
23	34.460	9.590	27.140	12 810	6 608	17 280	3 863	26 150	10 340	7 132	10 190	77 380
24	32 100	9 087	25 060	11 630	8 618	12 240	3 102	46.440	8.638	6 845	9 562	144 600
25	40.030	8 721	22 890	10 970	6.617	9.237	2 805	32 400	7.960	6 525	9 081	92.930
26	36 620	8.304	25.930	10 490	5.727	9 086	2.668	25 050	7.204	6 244	8 751	67 010
27	89 000	7 880	22 220	9 905	5.578	7 894	2 970	20 920	6 626	5 988	14.930	46 040
28	115 800	7 638	19 370	9 290	5.687	6 951	4 708	18 530	6 229	5 775	13 630	36 050
29	106 800		20.320	10 350	4.645	6.938	6 844	16.520	5.950	5.676	19 830	29 420
30	73 150		27 010	8.974	4 235	6 719	5 310	14 490	5.729	5 542	16 760	39 290
31	52 440		25 900		3 974		3 952	13 750		5 472		75.100
Average	33 620	22 790	14 630	35.200	6 342	6 136	3 880	20 740	12.160	13 940	12 040	47 150
Lowest	8 015	7.638	7 423	8 974	3 974	2 670	2 668	3 459	5 729	5 472	5.209	18 370
Highest	115.800	61.400	27.140	133 200	11 540	28.810	6 844	50 070	27.020	54 740	19.830	144 600
Peak flow	170 300	82.320	36 860	163 300	14 770	49.430	8 097	96 480	48 640	113 900	25 420	249 100
Day of peak	28	9	22	7	22	22	30	11	2	7	8	24
Monthly total (million cu m)	90 04	55 13	39.18	91 25	16 99	15.91	10.39	55 54	31 51	37 34	31 22	126.30
Runoff (mm)	98	60	43	100	19	17	11	61	34	41	34	138
Rainfall (mm)	115	40	103	104	67	102	62	170	57	70	91	173

Statistics of monthly data for previous record (Jul 1956 to Dec 1984)

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Mean flows	Avg	46.580	37 530	26 340	15 730	11.830	6.971	6 148	7 898	12.270	22 250	34.990	45.720
	Low	8 476	9.161	11.250	6 420	3 488	1 995	1 181	0 757	1 118	1 540	4 213	18 350
	(year)	1964	1965	1961	1974	1976	1976	1976	1976	1959	1978	1978	1963
	High	89 410	84.270	65.520	33.500	32.370	20.630	28 730	42 100	59 840	65 080	78.760	91 690
	(year)	1974	1974	1981	1966	1983	1972	1968	1958	1974	1981	1959	1959
Runoff	Avg	136	100	77	44	35	20	18	23	35	65	99	134
	Low	25	24	33	18	10	6	3	2	3	5	12	54
	High	261	222	191	95	95	58	84	123	169	190	223	268
Rainfall	Avg	147	100	98	65	75	69	82	90	109	120	138	145
	Low	23	3	14	7	25	11	13	18	10	12	58	41
	High	301	206	219	151	149	167	160	179	251	258	274	266

Summary statistics

	For 1985		For record preceding 1985		1985 As % of pre-1985
Mean flow (m^3s^{-1})	19.050		22.800		84
Lowest yearly mean			12 520	1964	
Highest yearly mean			34 890	1974	
Lowest monthly mean	3.880	Jul	0 757	Aug 1976	
Highest monthly mean	47 150	Dec	91 690	Dec 1959	
Lowest daily mean	2.668	26 Jul	0.580	23 Aug 1976	
Highest daily mean	144 600	24 Dec	482.300	27 Dec 1979	
Peak	249.100	24 Dec	714 600	28 Dec 1979	
10 %ile	42.480		55 980		76
50 %ile	11.410		12 470		91
95 %ile	3.320		1 779		187
Annual total (million cu m)	600 80		719 60		83
Annual runoff (mm)	655		785		83
Annual rainfall (mm)	1154		1238		93
[1941-70 rainfall average (mm)			1230]		

Factors affecting flow regime

- Reservoir(s) in catchment.
- Flow influenced by groundwater abstraction and/or recharge.
- Abstraction for public water supplies.
- Flow reduced by industrial and/or agricultural abstractions.
- Augmentation from surface water and/or groundwater
- Augmentation from effluent returns.

Station description

Velocity-area station. Because of the presence of large boulders, low flows are measured at a ford about 1.6 km upstream

050001 Taw at Umberleigh 1985

Measuring authority: SWWA
First year: 1958

Grid reference: SS 608237
Level stn. (m OD) 14 14

Catchment area (sq km): 826.2
Max alt. (m OD): 604

Daily mean gauged discharges (cubic metres per second)

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	26.470	40 290	5.919	25.170	5.404	1.931	7 305	5.141	8.535	4 019	3 120	10 090
2	22 570	36 220	6.094	21.510	5.718	1 859	6 490	5 737	19 610	4 011	3.161	17 230
3	19 000	30 560	8 055	23.730	5.069	1 745	5 722	5.658	16 520	7.197	2.943	15 000
4	16.220	26.600	6 671	31.720	4 661	1.677	5.187	37 040	22 960	6.032	2.854	16 080
5	13.850	22.770	5.423	35 220	4 866	2 065	4 827	37 570	23 960	4.920	3 054	35 010
6	12 020	20.720	5 128	37.200	4 811	2.075	4 278	24 190	20.670	25 090	3 035	52.510
7	10.780	42 170	9.396	75.960	4 173	2 393	3 869	19 880	17.620	22.530	3 384	45 830
8	9 774	51 500	7.336	81.730	3.828	1.989	3 460	16 020	15 230	29 900	7.294	36 610
9	11.540	58.430	6.354	53.930	3.603	2.546	3.145	18.120	12 640	25 510	9.873	28 000
10	10.050	38 130	5.973	40 270	3 454	2 998	2 935	14.970	10 660	20 850	9 009	26 170
11	8.802	28.450	5 583	42 370	3.333	2.316	2 813	41.520	9 125	17 330	6.954	23.010
12	7.896	22 270	5 332	33.960	3.179	3 771	2.749	36 160	7 968	14 500	6.305	18.950
13	7.288	17 910	5 508	35 240	3 135	2 612	2 582	28 120	6.937	12.220	5 572	21.210
14	6 342	14.770	5 344	27 510	3.029	2.099	2.541	29 020	6 621	10 560	7.204	25.350
15	6.006	11 940	5.772	25 070	2.915	1 884	2.347	24 300	6 129	9 376	8.617	22 290
16	6 010	11 090	8.101	21.320	2 755	1 742	2 455	20.900	6 248	8 438	8 826	20 420
17	5.858	9 827	9 850	18.090	2 583	1 717	2.231	17 030	6 296	7 749	9.903	20 860
18	5 870	8 841	10 150	15.640	2 439	1 911	2.492	15 120	5 666	7 034	8 502	20 770
19	5 688	7.974	10 790	13 760	2.400	2 457	2 648	13.910	5 151	6 358	8.215	17.760
20	18 860	7 661	14 670	12.150	2 419	2 543	2.818	12 390	4 666	5.792	7.861	17 440
21	98 600	7 538	38 720	11 650	3.806	5 560	2.653	12 060	5.305	5 355	8.564	23 820
22	43.400	7 134	30 290	10 070	6 012	21 590	4.940	12.460	7 993	4 991	7 576	39 860
23	28 550	6 898	37.370	8 857	3 611	20 200	4 099	13.940	6 294	4 626	6.916	76.790
24	28 050	6 432	36 300	7.984	3.502	19 460	3 545	26 060	6 144	4 384	6 477	136.400
25	44 860	6 059	28 860	7.366	3 073	16 090	3.342	21 770	5 840	4 122	6 130	97 570
26	37 890	5.835	41 360	6 875	2 786	13 990	3 218	18 970	5 383	3 978	5.839	87 520
27	48.780	5 505	30 770	6 475	3 172	10 840	3.509	16 500	5 005	3.754	7 369	55 140
28	66 490	5 208	24.580	6 285	3.726	9.789	5.362	15 010	4 654	3 543	7.144	39.370
29	69.410		22.610	7.357	2 605	9 564	7 225	12.620	4.446	3 437	8 127	29 000
30	60.750		25 430	5 981	2 287	8 162	6 453	10 960	4 264	3.323	9 224	24 510
31	49 190		21 390		2 074		5.731	9 921		3 218		41 080
Average	26 030	19 950	15 650	25.020	3 562	5 986	3.967	19 130	9 618	9 487	6.635	36 830
Lowest	5.688	5.208	5 128	5 981	2 074	1 677	2.231	5 141	4 264	3 218	2 854	10 090
Highest	98 600	58 430	41 360	81 730	6 012	21.590	7 305	41 520	23 960	29 900	9 903	136 400
Peak flow	111 900	76 210	53 420	94.250	7.824	29.880	8.019	78 200	39.110	64 900	12 760	289 800
Day of peak	21	9	26	8	22	23	29	11	2	7	9	24
Monthly total (million cu m)	69 71	48 27	41 92	64 84	9 54	15.52	10 62	.51 24	24 93	25 41	17.20	98 64
Runoff (mm)	84	58	51	78	12	19	13	62	30	31	21	119
Rainfall (mm)	95	40	97	90	50	108	70	160	51	60	71	159

Statistics of monthly data for previous record (Oct 1958 to Dec 1984)

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Mean flows	Avg	36.350	29 250	20 700	13 280	9 923	5 183	4 653	5 158	7 706	19.060	29 070	37 250
	Low	6 657	3 244	7 449	3 889	2 073	1 329	0 793	0 423	0.861	1 043	3.653	13.210
	(year)	1963	1959	1984	1974	1976	1984	1984	1976	1959	1978	1978	1963
	High	62 100	54 760	52 140	32 800	37 000	16.630	23.390	14 440	47 670	77 360	58 500	73 670
	(year)	1984	1970	1981	1966	1983	1972	1968	1965	1974	1960	1963	1985
Runoff	Avg	118	86	67	42	32	16	15	17	24	62	91	121
	Low	22	10	24	12	7	4	3	1	3	3	11	43
	High	201	160	169	103	120	52	76	47	150	251	184	239
Rainfall	Avg	134	88	90	68	73	64	71	84	96	114	130	139
	Low	28	5	18	8	28	10	23	24	14	14	56	41
	High	242	173	183	145	146	164	152	140	247	278	239	271

Summary statistics

	For 1985		For record preceding 1985		1985 As % of pre-1985
Mean flow (m^3s^{-1})	15.150		18 100		84
Lowest yearly mean			11 310	1964	
Highest yearly mean			27 590	1960	
Lowest monthly mean	3 562	May	0 423	Aug 1976	
Highest monthly mean	36.830	Dec	77 360	Oct 1960	
Lowest daily mean	1 677	4 Jun	0 200	28 Aug 1976	
Highest daily mean	136 400	24 Dec	363 800	4 Dec 1960	
Peak	289 800	24 Dec	644 900	4 Dec 1960	
10 %ile	36.550		47 470		77
50 %ile	8 044		9 366		86
95 %ile	2 388		1 141		209
Annual total (million cu m)	477 80		571 20		84
Annual runoff (mm)	578		691		84
Annual rainfall (mm)	1051		1151		91
(1941-70 rainfall average (mm)			1183)		

Factors affecting flow regime

- Reservoir(s) in catchment.
- Abstraction for public water supplies.
- Augmentation from effluent returns.

Station description
Velocity-area station

052005 Tone at Bishops Hull 1985

Measuring authority: WWA
First year: 1961

Grid reference ST 206250
Level stn. (m OD) 16.20

Catchment area (sq km): 202.0
Max alt. (m OD) 409

Daily mean gauged discharges (cubic metres per second)

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	4 000	4 981	2 299	4.598	1.988	1 198	0 910	0.714	1 009	0 815	0 933	1 513
2	3 697	4 670	2 310	3.915	1 961	1 132	0 661	0 793	1 959	0 832	0 932	2.710
3	3 520	4.221	3 070	3.767	1.910	1 084	0 819	0.804	1 490	1 359	0 912	2 242
4	3 347	4 030	2 391	4.759	1 874	1 101	0 851	2 298	2 219	1 038	0 925	2.319
5	3 148	3 900	2 115	4.593	1.991	1 097	0 760	1.342	1 812	0 866	0 903	3.110
6	2.992	3 810	2 024	4 073	1 865	1.324	0 657	0.974	1 459	2 202	0 883	5 810
7	2 875	7 365	2 564	10.840	1 740	1.249	0 693	0.970	1 401	2 157	1 010	4 126
8	2 583	13.740	2 288	9 208	1.707	1.103	0 707	0.908	1 398	1 999	1 361	3.305
9	2 296	17 280	2 120	6.716	1 658	1 235	0 690	0 969	1 314	1 688	1.395	2 854
10	2 202	8 466	2 023	5 564	1 643	1.179	0 700	0 950	1.267	1 381	1 135	2.712
11	2 077	6 806	1.928	7 683	1 616	1.093	0 708	1 614	1.226	1 333	1 057	2 919
12	2.009	5.686	1 845	6.357	1.569	1 179	0 722	1.120	1 181	1 269	0.978	2 479
13	1.944	4 862	1.886	6.765	1 540	1 067	0 772	1 316	1 121	1 224	0 931	2 489
14	1 829	4 248	1 828	5 906	1.438	1 017	0 795	1.513	1.123	1 191	1 002	2 445
15	1.820	3 713	1 874	4.927	1 378	0 944	0.740	1 227	1 077	1.165	1 021	2.242
16	1 779	3 429	1.883	4.594	1 273	0.939	0 735	1 144	1 061	1 148	1 024	2 112
17	1 776	3.246	1 768	4 201	1 328	0.957	0 725	1 053	1 030	1.143	1 052	2 134
18	1 795	2 992	1 701	3.886	1 270	0 981	0 732	1.079	1 044	1 124	1 042	2 114
19	1 727	2 657	1 701	3 592	1.392	0 967	0.847	1 104	1.021	1 096	1.141	1 957
20	2 750	2 642	2 650	3.374	1 420	0 995	0 784	1.045	0 980	1.066	1 112	1.918
21	14 990	2 679	4 030	3.253	1.902	1.730	0.811	1.207	1.006	1 058	1 126	2 721
22	6.073	2 436	3 055	2 848	1 784	1 453	0 940	1 168	1 114	1 044	0 953	4 993
23	4 497	2 434	2 570	2 579	1 441	1 196	0 812	1 577	0 955	1.008	0 938	8 068
24	4 349	2.295	2 455	2 427	1 445	1.162	0 773	2.264	0 989	0 996	0 921	20 160
25	6.658	2 308	2 470	2 396	1 816	1.050	0 723	1 383	0 929	0.988	0 932	41 970
26	5.527	2 708	7 133	2 348	1 922	1.057	0 698	1 232	0.886	1.001	0 933	64 350
27	8.501	2 162	4 177	2.238	2 576	0 982	0 785	1 198	0 911	0 981	0.960	11 190
28	7.422	2 084	3 381	2.134	1.769	0.957	1 095	1.197	0.892	0 953	0 937	7 076
29	6 173		3.446	2 127	1 422	0 951	1 084	1 126	0 847	0 946	1.022	5.228
30	5.675		3 692	2.058	1.312	0 940	0 842	1 077	0.799	0.946	1 252	4.442
31	5 238		3 606		1 211		0.785	1 076		0.945		5.928
Average	4 041	4 691	2 654	4 458	1 650	1.111	0 786	1.208	1 184	1.192	1 024	7 408
Lowest	1 727	2 084	1.701	2 058	1 211	0 939	0.657	0 714	0.799	0.815	0 883	1 513
Highest	14 990	17 280	7 133	10.840	2.576	1.730	1.095	2.298	2.219	2 202	1.395	64 350
Peak flow	21 400	33 860	11 250	16 730	3.741	2 083	2.034	3 986	3 075	4 027	1 580	99 150
Day of peak	21	9	26	7	25	21	31	23	4	6	9	26
Monthly total (million cu m)	10 82	11.35	7.11	11 55	4 42	2 88	2 10	3 24	3 07	3.19	2 65	19 84
Runoff (mm)	54	56	35	57	22	14	10	16	15	16	13	98
Rainfall (mm)	79	51	81	76	58	66	51	126	42	55	54	188

Statistics of monthly data for previous record (Feb 1961 to Dec 1984)

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Mean flows	Avg	6 173	6.256	4 527	2 843	2 177	1.444	1 216	0 958	1 240	2 052	3.375	5 121
	Low	1.246	1 746	1.552	1 177	0 735	0 456	0 326	0 266	0.501	0 580	0 652	1 821
	(year)	1976	1965	1962	1976	1978	1976	1976	1976	1964	1978	1978	1975
	High	14 560	14 000	9 259	6 655	6 562	2 770	5 628	1 686	4 892	9 872	7 611	11 280
	(year)	1984	1978	1981	1968	1983	1972	1968	1965	1974	1976	1982	1965
Runoff	Avg	82	75	60	36	29	19	16	13	16	27	43	68
	Low	17	21	21	15	10	6	4	4	6	8	8	24
	High	193	168	123	85	87	36	75	22	63	131	98	150
Rainfall	Avg	115	84	85	59	69	59	58	68	86	88	100	112
	Low	25	6	5	6	25	8	16	19	8	8	41	40
	High	250	170	170	150	137	147	144	122	202	249	192	205

Summary statistics

	For 1985		For record preceding 1985		1985 As % of pre-1985
Mean flow (m^3s^{-1})	2 608		3 101		84
Lowest yearly mean			1.600	1964	
Highest yearly mean			4 084	1974	
Lowest monthly mean	0.786	Jul	0 266	Aug 1976	
Highest monthly mean	7 408	Dec	14.560	Jan 1984	
Lowest daily mean	0 657	6 Jul	0 179	22 Aug 1976	
Highest daily mean	64 350	26 Dec	84 200	23 Feb 1978	
Peak	99 150	26 Dec	112.700	11 Jul 1968	
10 %ile	4 883		6 745		72
50 %ile	1.509		1 808		83
95 %ile	0 778		0.634		123
Annual total (million cu m)	82 25		97 86		84
Annual runoff (mm)	407		484		84
Annual rainfall (mm)	927		983		94
[1941-70 rainfall average (mm)			1027]		

Factors affecting flow regime

- Augmentation from surface water and/or groundwater.

Station description
Velocity-area station, improved by Crump weir of breadth 12.2 m in 1968.

053006 Frome (Bristol) at Frenchay 1985

Measuring authority: WWA
First year: 1961
Grid reference: ST 637772
Level stn. (m OD) 19.96
Catchment area (sq km): 148.9
Max alt. (m OD): 193

Daily mean gauged discharges (cubic metres per second)

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	2.498	2.822	1.098	6 882	0 666	0.402	0 830	0 665	0 736	0.357	0 387	1 502
2	1.907	2 186	0.991	4.157	0 672	0.358	0.720	0.769	2.344	0 439	0 382	3 148
3	1 535	1.793	1 426	2.980	0 653	0 339	0 680	0 655	2.709	0.998	0.365	2.577
4	1.341	1 613	1 231	2 936	0 634	0.536	0.580	9.086	1.759	0.775	0 363	3 126
5	1.162	1.438	1 047	3.427	0 642	0.563	0.550	5.899	1.434	0.555	0 357	6 842
6	1 048	1 648	0 997	3 156	0 687	2 360	0.500	2.179	1.028	4 591	0.408	8.693
7	0.935	7 346	1.537	3.440	0 541	2.040	0 460	1 447	0 881	5 374	0 603	6 099
8	0 870	15 810	1.350	3 585	0 502	0.990	0 440	1 151	0 778	2.559	1.722	3.002
9	0 803	8 074	1.157	2 468	0.747	0 920	0 450	1.132	0 696	1 512	2.929	2.102
10	0.763	4 555	1 023	1.920	0.520	0.710	0 430	1.415	0 649	1.098	1 457	2.306
11	0 735	2.990	0.902	2.715	0 473	1 400	0 430	2 247	0 592	0 871	0 868	3 697
12	0.710	2 225	0 869	1 976	0 432	1.750	0.420	1.954	0.595	0 758	0 664	2.359
13	0 874	1.780	0 855	2 081	0 621	0.860	0 440	3 035	0.528	0 667	0.566	3.197
14	0 613	1.492	0 843	1.690	0 689	0 630	0 510	4 923	0 521	0.620	0 631	2 620
15	0.622	1.227	0 857	1.391	0 678	0.520	0.480	3.046	0.499	0.607	0.640	1.996
16	0 592	1 162	0.788	1.211	0 469	0 490	0 500	2 156	0 471	0 563	0 708	1 643
17	0.579	1.113	0.705	1.115	0.408	0.520	0.450	1.397	0.484	0 549	0.846	1.611
18	0 607	1 030	0 651	1 042	0 362	0 870	0 450	1 233	0 464	0 529	0 741	1 653
19	0 589	1 021	0.659	0.977	0 348	0 700	1 050	3.634	0 458	0 477	0 641	1 395
20	0.784	1.203	0.701	0 896	1 036	0.930	0 530	2.738	0 440	0 457	0.593	1.769
21	15 070	2 067	0.838	0.891	2 291	4.920	0.900	2.395	0 648	0 448	0 562	2 077
22	10 190	2.222	1 197	0 793	1 059	9.200	1.310	2.140	0 540	0 445	0 528	3.693
23	3.862	2 070	1 209	0 764	0 671	4 760	0.640	2 845	0 432	0 431	0 543	8 490
24	3.648	1 594	1 028	0 766	0 545	4.890	0 490	5 075	0 421	0 425	0 511	24 440
25	8.596	1 384	1.025	0.754	0 626	2.550	0 410	3 804	0 421	0 421	0 481	19.050
26	7 421	1 201	3.674	0.733	0 600	2 600	0 390	1 974	0 411	0 410	0 485	17 460
27	4.291	1 103	2 640	0.726	1 784	1.590	0 610	1 421	0 397	0 395	0 403	6 029
28	4 394	1.036	1.721	0 839	0 990	1.280	1 410	1.197	0.385	0.389	0.441	3.365
29	4 394		1 818	0 753	0 627	1.140	1 580	1 014	0 349	0 389	1 004	2 281
30	4.266		4 804	0 695	0 503	0 950	1 310	0 881	0 365	0.389	1 736	1.948
31	3 851		5.915		0 445		1.170	0.832		0 389		3.640
Average	2.882	2 685	1 470	1 925	0 707	1.726	0 681	2 398	0 748	0 932	0 752	4.962
Lowest	0.579	1 021	0.651	0.695	0 346	0 339	0 390	0.655	0.349	0 357	0.357	1 395
Highest	15 070	15 810	5 915	6 882	2 291	9 200	1 580	9 086	2 709	5 374	2.929	24 440
Peak flow	20 430	21.540	9.757	8.692	3 608	12.470	3 400	12.750	4 525	8.919	4 330	35 460
Day of peak	21	8	31	1	21	21	21	4	2	6	8	24
Monthly total (million cu m)	7.72	6.50	3.94	4.99	1.89	4.47	1.82	6.42	1.94	2.50	1 95	13.29
Runoff (mm)	52	44	26	34	13	30	12	43	13	17	13	89
Rainfall (mm)	63	48	62	41	65	116	72	119	26	49	45	131

Statistics of monthly data for previous record (Oct 1961 to Dec 1984)

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Mean flows	Avg	3 400	2 864	2 419	1 326	1 248	0 791	0 633	0 488	0 781	1 194	2.165	3 137
	Low	0.670	0 613	0 637	0.476	0.290	0 220	0 122	0.139	0.208	0 162	0 211	0 820
	(year)	1976	1965	1973	1976	1976	1976	1976	1976	1978	1978	1978	1973
	High	6.152	6 040	5.762	3.434	5 028	2.973	3 516	1 191	5 113	4 691	5 434	9 807
	(year)	1962	1977	1981	1986	1983	1971	1968	1971	1974	1967	1963	1965
Runoff	Avg	61	47	44	23	22	14	11	9	14	21	38	56
	Low	12	10	11	8	5	4	2	3	4	3	4	15
	High	111	98	104	60	90	52	63	21	89	84	95	176
Rainfall	Avg	75	53	65	48	67	62	53	68	79	66	77	86
	Low	18	3	21	5	19	6	12	26	21	5	35	25
	High	137	127	148	97	147	139	129	127	182	183	165	208

Summary statistics

	For 1985		For record preceding 1985		1985 As % of pre-1985
Mean flow (m^3s^{-1})	1.821		1.700		107
Lowest yearly mean			0 804	1973	
Highest yearly mean			2.255	1974	
Lowest monthly mean	0 681	Jul	0.122	Jul 1976	
Highest monthly mean	4 962	Dec	9 807	Dec 1965	
Lowest daily mean	0.339	3 Jun	0 075	10 Aug 1976	
Highest daily mean	24 440	24 Dec	53 530	18 Dec 1965	
Peak	35.460	24 Dec	70.790	10 Jul 1968	
10 %ile	3 761		4 139		91
50 %ile	0.950		0 774		123
95 %ile	0 393		0 199		197
Annual total (million cu m)	57.43		53.65		107
Annual runoff (mm)	386		360		107
Annual rainfall (mm)	837		799		105
[1941-70 rainfall average (mm)			791]		

Factors affecting flow regime

- Flow influenced by groundwater abstraction and/or recharge
- Flow reduced by industrial and/or agricultural abstractions

Station description
Trapezoidal critical depth flume. Range 0.028/56.6 cu m/s

054001 Severn at Bewdley 1985

Measuring authority: STWA
First year: 1921
Grid reference: SO 782762
Level stn. (m OD) 17.00
Catchment area (sq km): 4325.0
Max alt. (m OD): 827

Daily mean gauged discharges (cubic metres per second)

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	90.500	114.800	54.340	76.540	26.530	22.150	42.970	32.630	45.130	16.650	22.450	46.720
2	78.570	93.280	51.680	125.500	24.300	20.330	35.680	29.210	43.540	16.310	20.670	93.680
3	69.000	76.100	58.920	100.500	22.810	18.330	29.820	28.280	41.200	19.000	20.070	119.100
4	62.170	67.100	63.940	105.500	20.900	17.820	26.290	33.380	56.640	20.540	21.770	114.800
5	56.170	60.810	87.780	113.100	21.090	21.640	25.520	39.830	50.910	21.140	22.050	129.500
6	50.400	54.340	73.910	130.100	21.590	46.880	24.410	71.830	61.410	42.400	25.900	119.200
7	46.740	77.640	65.020	143.900	21.680	121.900	22.220	50.390	47.790	94.110	33.640	177.200
8	42.160	174.400	62.850	159.000	21.040	113.700	20.240	37.430	39.280	104.800	47.060	188.500
9	37.830	158.600	54.130	147.500	19.340	71.760	19.030	34.740	37.590	109.100	110.000	136.600
10	34.730	117.600	47.910	113.400	17.740	65.120	18.530	29.260	35.320	117.900	160.200	119.400
11	32.980	89.460	44.160	95.810	17.040	59.470	17.920	40.010	30.660	86.080	110.300	113.900
12	29.320	80.490	40.860	123.800	17.330	77.020	17.190	46.880	27.340	75.320	78.900	110.900
13	28.620	72.730	37.500	115.500	18.620	143.000	17.120	70.010	25.640	56.900	67.170	104.300
14	28.090	63.850	35.980	131.300	23.590	92.990	22.830	65.890	23.010	48.390	58.490	175.900
15	26.850	52.450	35.320	143.000	51.840	68.950	22.580	67.330	21.620	42.910	59.210	132.900
16	26.380	47.790	34.820	103.700	52.120	52.800	22.610	106.900	22.060	38.850	62.200	103.200
17	24.480	42.860	37.100	81.560	36.430	44.510	19.770	157.000	21.310	36.350	63.580	85.560
18	23.300	40.620	37.770	68.340	26.390	38.170	19.180	118.200	26.660	35.870	64.930	80.270
19	23.580	37.180	37.900	59.420	23.930	35.870	21.020	87.250	28.260	33.080	53.660	89.240
20	23.540	35.450	35.130	51.360	24.250	34.420	23.680	79.620	24.730	32.020	51.850	78.570
21	43.390	52.190	33.710	45.610	41.340	34.750	24.730	84.720	22.780	31.560	48.640	90.290
22	86.050	81.810	37.220	42.460	51.720	37.440	20.870	74.880	21.900	30.040	45.350	216.300
23	94.120	85.330	53.670	37.810	43.710	45.580	24.400	65.580	27.540	28.480	40.380	258.300
24	59.720	90.090	50.040	34.130	35.260	59.110	32.170	72.750	27.220	23.210	34.140	224.000
25	60.920	76.180	45.810	31.910	29.560	59.800	22.970	137.000	23.930	20.890	32.930	191.400
26	75.070	63.540	40.930	30.510	32.980	46.970	19.090	105.700	21.850	19.050	32.260	159.700
27	62.760	58.100	37.860	28.970	36.220	40.490	17.960	79.270	21.550	18.580	30.670	131.700
28	63.350	55.930	35.040	26.820	37.220	37.750	20.320	64.540	20.170	18.760	31.690	102.100
29	97.900		33.240	29.300	34.030	34.750	31.810	66.730	19.800	18.740	32.900	80.200
30	135.000		36.660	29.160	28.420	43.480	50.680	57.570	18.090	20.810	31.110	68.520
31	131.600		66.710		24.510		45.620	48.910		22.820		66.250
Average	56.300	75.740	47.350	84.180	29.150	53.570	25.140	67.220	31.160	41.960	50.470	126.100
Lowest	23.300	35.450	33.240	26.820	17.040	17.820	17.120	28.280	18.090	16.310	20.070	46.720
Highest	135.000	174.400	87.780	159.000	52.120	143.000	50.680	157.000	61.410	117.900	160.200	258.300
Peak flow	152.600	193.700	97.520	166.900	56.690	158.400	53.520	162.900	67.220	132.700	172.000	263.000
Day of peak	30	8	5	7	21	13	30	17	6	10	10	23
Monthly total (million cu m)	150.80	183.20	126.80	218.20	78.06	138.80	67.33	180.00	80.78	112.40	130.80	337.70
Runoff (mm)	35	42	29	50	18	32	16	42	19	26	30	78
Rainfall (mm)	50	46	64	76	76	119	59	106	25	63	88	294

Statistics of monthly data for previous record (Apr 1921 to Dec 1984—incomplete or missing months total 0.1 years)

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Mean flows:	Avg	114.700	103.400	74.220	51.550	40.030	29.580	23.130	27.750	37.160	54.320	90.890	101.000
	Low	22.090	21.200	23.200	15.890	12.920	9.811	9.592	7.460	7.676	10.500	21.740	17.840
	(year)	1963	1934	1943	1938	1974	1976	1976	1976	1949	1947	1942	1933
	High	250.600	232.300	261.900	112.400	131.600	117.400	91.220	92.360	126.700	140.700	238.300	297.400
	(year)	1939	1946	1947	1947	1969	1931	1968	1927	1946	1967	1940	1965
Runoff	Avg	71	58	46	31	25	18	14	17	22	34	54	63
	Low	14	12	14	10	8	6	6	5	5	7	13	11
	High	155	130	162	67	81	70	56	57	76	87	143	184
Rainfall	Avg	92	68	62	60	70	60	72	77	80	84	97	92
	Low	23	8	3	5	18	5	10	13	5	13	13	10
	High	226	170	175	128	186	136	193	160	209	174	244	211

Summary statistics

	For 1985		For record preceding 1985		1985 As % of pre-1985
Mean flow (m^3s^{-1})	57.240		62.110		92
Lowest yearly mean			36.460	1964	
Highest yearly mean			94.740	1960	
Lowest monthly mean	25.140	Jul	7.460	Aug 1976	
Highest monthly mean	126.100	Dec	297.400	Dec 1965	
Lowest daily mean	16.310	2 Oct	5.990	4 Sep 1976	
Highest daily mean	258.300	23 Dec	637.100	21 Mar 1947	
Peak	263.000	23 Dec			
10 %ile	115.500		148.300		78
50 %ile	43.320		37.760		115
95 %ile	19.050		11.360		168
Annual total (million cu m)	1805.00		1960.00		92
Annual runoff (mm)	417		453		92
Annual rainfall (mm)	1066		914		117
[1941-70 rainfall average (mm)			952]		

Factors affecting flow regime

- Reservoir(s) in catchment.
- Flow influenced by groundwater abstraction and/or recharge.
- Abstraction for public water supplies.
- Flow reduced by industrial and/or agricultural abstractions.
- Augmentation from surface water and/or groundwater
- Augmentation from effluent returns.

Station description

Velocity-area station. The aqueduct site (SO776783) recorder was superseded in January 1970 by the gauging section recorder. Variations used to derive the natural flow include storage changes in Lakes Vyrnwy and Clywedog and abstractions for public water supplies from the river

054002 Avon at Evesham 1985

Measuring authority: STWA
First year: 1937

Grid reference: SP 040438
Level stn. (m OD): 19 50

Catchment area (sq km): 2210.0
Max alt. (m OD): 320

Daily mean gauged discharges (cubic metres per second)

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	22.100	32.300	27.750	20 790	10.190	8 419	11.710	9.017	5.774	5.184	5.908	9.622
2	18 590	24 240	28 930	19 240	9.518	7.782	10 760	7 694	6 440	5 201	5 629	15.460
3	15.480	19.730	27 300	16.350	9.022	7.261	9 386	7 342	8.325	5 964	5.866	25 790
4	13.520	17.600	26.580	16 310	8 791	13.220	8 842	9 521	7.875	6.583	6.669	22.700
5	12 330	16 240	21 020	18 320	8 960	27.810	8.766	13.930	7.170	5.721	6.321	69.370
6	11.650	14 870	17.290	20.150	8 942	47 870	8 252	10 440	6 483	8 629	5 954	94 640
7	11 080	30.130	22.160	21.830	8 607	126.300	7 523	8 636	5 899	21.640	6 687	97.860
8	10 190	58.130	22.500	49 040	8.459	86 070	7.248	7.810	5 746	14.570	17 220	63.700
9	9.737	51 330	19.640	37 980	8 531	45.300	6 946	8.009	6.055	10 840	18 320	35.490
10	9.225	34 080	17.440	27 820	8 658	26.750	6.734	7.393	6 068	8.165	14 400	26.330
11	8 667	28 700	15.670	26 150	7.438	21 320	6.605	8 436	5 836	7 149	12 930	30.150
12	8 362	25.940	14.180	29 090	7 938	25.740	6.567	8.869	5 675	6 072	9 830	32.500
13	8.334	21.090	13.690	23 040	11 330	21.740	6.526	8 315	5.657	5.758	7 739	26.870
14	8 417	18 010	13 310	19 270	14 910	18 080	6.892	8 355	5.744	5 843	7 479	22.400
15	8.365	16.550	12.960	16 500	35 270	14.730	6.824	8.745	5.751	5 830	11 040	18 600
16	8 079	14.680	12 980	13 870	19 710	12 810	7.870	8 509	5 458	5 783	11 540	16.440
17	7.604	13.560	12.040	12 820	12.330	11.880	7 918	7.230	5 462	5.823	12 130	15 630
18	8 047	11.850	11 640	12 440	10 060	12 620	6 851	6 710	5 638	5.637	10.520	15.960
19	8.106	11 210	11 690	11 820	10 350	12 810	11 050	7 582	5.409	5 519	9 805	14.470
20	8.215	11 960	11.850	12 360	14 280	14 890	10 870	9.279	5 371	5.472	8 678	13 560
21	63.340	17 160	11 880	12 280	30 300	16 420	7 874	8 678	5 365	5 552	8 612	12 830
22	92.860	33 740	16.430	11 580	26.840	23 960	7 141	9 753	5 283	6.035	8 390	18.620
23	57 460	46 240	36 830	10 940	16 280	21.860	6.804	8 921	5 176	5 959	8.855	22.090
24	30.560	41 640	28 880	10 630	13 660	53 950	6 329	10 440	5 230	5 965	8 874	86 370
25	27 050	30 070	22.780	9.944	11 430	40 770	5.912	9 456	5 342	5 932	9 163	102 400
26	41.580	23 970	19 810	9 849	13 460	29.360	5 972	8 084	5 247	5 876	9.041	105.200
27	32 550	22 080	18.230	10 040	16 280	21 830	6 213	7.026	5.174	5 863	8 400	74.190
28	37 260	21.140	16 230	10 140	20 070	17 150	9 535	6 536	5 126	5 965	7 867	40 920
29	40 630		14 780	12 440	13 770	14 470	17 660	6 366	5 119	5 956	7.411	25 700
30	51.450		14 850	11 100	11 190	12.730	16.950	6.066	5 184	5.978	7 898	19 410
31	44 400		16 500		9 317		12 120	5 971		5 698		20.040
Average	23.720	25.290	18.640	17 800	13 420	27.200	8 602	8.359	5 803	6.973	9 306	38 560
Lowest	7 604	11 210	11 640	9 849	7 438	7.261	5 912	5.971	5 119	5.184	5 629	9 622
Highest	92 860	58 130	36 830	49 040	35.270	126 300	17.660	13 930	8 325	21.640	18 320	105.200
Peak flow	107 400	67 400	41.730	53 600	43 300	132.900	20 490	14 770	9 427	26 440	20 550	110 400
Day of peak	21	8	23	8	15	7	29	5	3	7	8	26
Monthly total (million cu m)	63.52	61.19	49 92	46.15	35.93	70 49	23 04	22 39	15.04	18 68	24.12	103.30
Runoff (mm)	29	28	23	21	16	32	10	10	7	8	11	47
Rainfall (mm)	42	35	41	44	65	111	56	61	[illegible]	40	56	91

Statistics of monthly data for previous record (Dec 1936 to Dec 1984)

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Mean flows	Avg	27 760	27 850	22.630	14 280	11 460	8.100	6 432	6 597	6.750	9.200	17 340	22 240
	Low	5.140	4 869	2 261	3 240	2 220	1 935	2.253	2 038	1 970	2 484	2 677	3.548
	(year)	1950	1944	1944	1938	1944	1944	1976	1943	1959	1959	1943	1943
	High	73 520	77 930	75.600	35 160	37.680	27 380	42.230	16.100	24 210	45.410	55 910	65 160
	(year)	1939	1977	1947	1966	1983	1977	1968	1969	1960	1960	1960	1965
Runoff	Avg	34	31	27	17	14	10	8	8	8	11	20	27
	Low	6	6	3	4	3	2	3	2	2	3	3	4
	High	89	85	92	41	46	32	51	20	28	55	66	79
Rainfall (1937-1984)	Avg	60	43	48	42	56	52	56	70	56	57	65	60
	Low	13	3	5	5	15	10	8	5	3	6	8	15
	High	127	122	140	94	130	115	122	130	127	150	163	121

Summary statistics

	For 1985		For record preceding 1985		1985 As % of pre-1985
Mean flow (m^3s^{-1})	16 930		15.000		113
Lowest yearly mean			6 895	1944	
Highest yearly mean			25.030	1960	
Lowest monthly mean	5 803	Sep	1 935	Jun 1944	
Highest monthly mean	38.560	Dec	77 930	Feb 1977	
Lowest daily mean	5.119	29 Sep	1.274	9 Oct 1959	
Highest daily mean	126 300	7 Jun	277 100	11 Jul 1968	
Peak	132.900	7 Jun	371.000	11 Jul 1968	
10 %ile	32 370		33 460		97
50 %ile	11 340		7 924		143
95 %ile	5.558		2.564		217
Annual total (million cu m)	533 90		473 40		113
Annual runoff (mm)	242		214		113
Annual rainfall (mm)	659		665		99
[1941-70 rainfall average (mm)			672]		

Factors affecting flow regime

- Flow influenced by groundwater abstraction and/or recharge.
- Abstraction for public water supplies.
- Flow reduced by industrial and/or agricultural abstractions.
- Augmentation from effluent returns.

Station description
Velocity-area station. Groundwater catchment extends into TWA

055026 Wye at Ddol Farm 1985

Measuring authority: WELS
First year: 1969

Grid reference: SN 976676
Level stn. (m OD) 192 76

Catchment area (sq km): 174.0
Max alt. (m OD) 752

Daily mean gauged discharges (cubic metres per second)

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	5 623	11 480	3 477	19 880	1 809	1 547	6.342	2.945	4.282	1.507	1 244	11.100
2	4.793	8.746	3.336	13 520	1.727	1.443	4 695	4.909	7 320	1 641	1.447	14 230
3	4 111	7.318	5.020	15.470	1 547	1 362	3 696	3 323	7.322	2 344	1 278	11 770
4	3 640	5 795	15 600	16 810	1 465	1.386	3 056	11 660	8.984	2.736	1 200	16.410
5	3 063	4 837	7 956	18.790	1 649	1 387	3 031	10 740	11 940	2 101	2 670	12 010
6	2.772	6.861	6 249	18 050	1 920	7.776	2 485	6 291	7 134	22.400	2.719	26 550
7	2 590	21.590	7 439	22 430	1 831	4 939	2.162	8 890	5 420	13 100	4 433	26 740
8	2 421	14 430	5.100	22.700	1.406	4 464	1 963	5 706	5 132	17.670	12 270	16 070
9	2.249	10.230	4.322	13.980	1 327	9 341	1 804	4.919	4 099	14.020	18.450	11.170
10	2.137	7 362	3 921	9 834	1.290	7 899	1 606	3 934	3.444	9 690	11 650	13 190
11	2 004	5 892	3 397	20 610	1 215	42.870	1.598	11 470	2 918	7 839	8.602	10.130
12	1 754	5.115	3.033	14 240	1.127	30 140	2 569	9.483	2 490	5.834	6 220	11 980
13	1 836	4 387	3 016	15 540	1 289	13 280	2 440	10.100	2 211	4 737	5.031	34 650
14	1.779	3.630	2.882	14 180	1.821	8.288	3 437	10.430	2.538	4.046	5 587	21 560
15	1.550	2 634	3.298	10 860	4.759	5.773	2 166	21.750	2.472	3 486	4.656	14 300
16	1 514	3 004	3 099	8.287	2.399	4.347	2 872	21 530	7 566	3 087	6.255	10 110
17	1 597	2 637	2.900	6 357	1.918	3.787	4 460	12 760	5.926	2 817	5 065	16 000
18	1 560	2 309	2 639	5 061	1 670	3 307	3.890	10 690	4 444	2.553	4.242	15.460
19	1.497	2.349	2 377	4 163	1.646	2.705	3 406	9 477	4.147	2.296	3.741	11 360
20	1 443	3.140	2.205	3.600	1.804	2 406	2 555	10 810	3.307	2 160	3.430	9.695
21	7 393	4 182	2.162	3 387	2.532	3 668	2 329	7.976	5 244	2 020	3.084	48 700
22	4.256	4.256	2.249	2 881	2 217	7 913	13.330	7 045	5.642	1.908	2.853	36.240
23	2.752	6 745	2 452	2 482	1.895	15 020	5 063	19.060	3 726	1.791	2 647	22 880
24	4.221	5.193	2 681	2.207	2 118	17 540	3 388	19 660	3 026	1 710	2.487	16.100
25	4.425	4 051	2 688	2 080	2.538	10.200	2 539	15 760	2 591	1.619	2.294	12 430
26	3.773	3.826	2 435	1.948	2 862	10.090	4 949	11 150	2.262	1 532	2.207	9 740
27	5 968	4 060	2.211	1 872	2.433	6.916	6 149	9.711	2.092	1.466	2 545	7 069
28	13 260	3 403	2 124	1 767	2.400	12 840	8.469	9 620	1 937	1 418	2 230	5 228
29	24 190		4 094	1 943	1.998	14.620	8 807	6.727	1.799	1.371	2.215	4 174
30	15 540		9.544	1 993	1 812	8 779	5 324	5 243	1 657	1.336	5 189	9.361
31	13 680		11 500		1 659		3 798	4 383		1 303		10 660
Average	4 819	6 052	4.368	9 897	1 932	8.867	4 012	9.934	4 436	4 630	4.598	16.030
Lowest	1 443	2 309	2 124	1.767	1.127	1 362	1 598	2 945	1 657	1 303	1.200	4.174
Highest	24 190	21.590	15 600	22 700	4 759	42 870	13 330	21.750	11 940	22 400	18.450	48.700
Peak flow	41 630	31.280	38 560	33 950	7 504	75 990	35 540	41 910	19.510	41 840	22.290	81 450
Day of peak	29	7	31	11	15	11	22	23	4	6	8	21
Monthly total (million cu m)	12 91	14 64	11 70	25.65	5 17	22.98	10.75	26 61	11 50	12 40	11.92	42 95
Runoff (mm)	74	84	67	147	30	132	62	153	66	71	68	247
Rainfall (mm)	77	77	98	133	83	202	103	201	81	99	113	242

Statistics of monthly data for previous record (Oct 1969 to Dec 1984)

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Mean flows	Avg	11 960	10.150	8.239	4 915	3.259	2 279	2 016	2.679	4.747	7 711	11.850	11 480
	Low	5 892	5.248	2.753	1.014	0 485	0.497	0 316	0 177	0.948	0.683	6 044	4 974
	(year)	1973	1975	1984	1974	1980	1975	1984	1976	1972	1972	1976	1971
	High	18 780	16.880	19 610	12 460	8 773	5.828	5 543	5.967	12 340	18 840	19.810	17.890
	(year)	1983	1970	1981	1972	1979	1972	1974	1973	1974	1981	1970	1974
Runoff:	Avg	184	142	127	73	50	34	31	41	71	119	176	177
	Low	91	73	42	15	7	7	5	3	14	11	90	77
	High	289	235	302	186	135	87	85	92	184	290	295	275
Rainfall:	Avg	197	151	139	90	86	85	72	102	144	144	199	185
	Low	98	49	60	11	25	21	14	13	44	39	97	95
	High	322	260	284	206	191	183	150	165	260	269	293	314

Summary statistics

	For 1985		For record preceding 1985		1985 As % of pre-1985
Mean flow (m^3s^{-1})	6.633		6 757		98
Lowest yearly mean			4.304	1976	
Highest yearly mean			8.231	1974	
Lowest monthly mean	1.932	May	0 177	Aug 1976	
Highest monthly mean	16 030	Dec	19.810	Nov 1970	
Lowest daily mean	1.127	12 May	0 083	15 Aug 1983	
Highest daily mean	48.700	21 Dec	76 690	21 Feb 1970	
Peak	81 450	21 Dec	252 200	5 Aug 1973	
10 %ile	15 020		16.700		90
50 %ile	4 110		3 750		110
95 %ile	1 443		0 418		346
Annual total (million cu m)	209 20		213.20		98
Annual runoff (mm)	1202		1225		98
Annual rainfall (mm)	1509		1594		95
[1941-70 rainfall average (mm)			1623]		

Factors affecting flow regime

- Abstraction for public water supplies.

Station description

Velocity-area station. Flat V weir installed 1972. Replaces long term station at Rhayader 055005

056001 Usk at Chain Bridge 1985

Measuring authority: WELS
First year: 1957

Grid reference: SO 345056
Level stn. (m OD) 22.63

Catchment area (sq km): 911.7
Max alt. (m OD) 886

Daily mean gauged discharges (cubic metres per second)

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	27.940	48.850	16.160	101.500	12.760	9.641	14.400	10.270	25.930	7.876	9.121	52.280
2	25.660	40.030	16.910	60.950	12.520	9.173	12.910	9.913	34.700	8.761	8.794	96.560
3	23.410	35.470	23.610	84.810	11.840	8.710	11.920	11.470	43.790	36.480	8.724	67.900
4	21.890	31.470	24.280	88.920	11.270	13.100	11.160	22.010	32.590	27.700	8.397	64.040
5	20.200	28.140	19.520	91.130	11.330	14.180	10.880	35.700	35.430	27.230	8.894	53.990
6	18.700	27.600	17.300	78.100	13.050	16.480	10.070	19.210	26.610	207.100	10.050	86.610
7	17.650	62.070	26.600	113.600	11.730	22.050	9.347	17.140	23.670	115.500	11.020	68.350
8	16.940	61.490	22.430	104.500	10.290	14.900	8.941	15.380	21.610	86.170	73.190	52.920
9	16.230	46.290	19.540	70.320	9.714	14.150	8.454	17.300	19.400	70.870	90.100	41.330
10	15.390	37.930	17.930	54.250	9.424	13.600	8.247	15.790	17.220	49.410	44.040	42.070
11	14.450	32.130	16.730	84.300	9.266	16.130	8.188	54.380	15.660	40.920	33.220	41.390
12	13.770	28.490	15.920	64.430	8.910	41.750	8.146	65.190	14.240	33.140	27.360	34.100
13	13.340	25.710	15.440	59.720	9.061	21.930	8.164	42.270	13.160	29.020	23.270	47.550
14	12.470	23.570	15.350	59.930	9.369	17.590	8.433	40.370	12.890	25.390	21.960	39.550
15	12.130	21.300	15.220	44.380	11.670	15.060	7.908	65.980	13.110	22.100	21.650	38.350
16	11.860	19.220	14.570	37.750	10.430	13.490	7.697	65.320	12.080	20.060	20.380	33.230
17	11.210	18.630	13.650	32.860	9.068	12.590	7.875	43.920	12.850	18.670	22.760	31.290
18	11.030	17.570	12.870	29.340	8.480	12.200	11.380	34.870	11.940	17.490	18.400	33.290
19	11.180	16.850	12.300	25.860	8.215	11.620	10.880	45.730	11.290	16.170	17.180	29.210
20	11.480	16.870	11.960	24.020	8.871	10.890	10.320	50.840	11.150	15.010	16.500	38.090
21	65.330	18.810	12.270	22.840	11.560	20.480	8.389	37.340	10.790	14.210	15.990	163.700
22	40.300	19.020	12.470	20.530	12.130	29.890	10.580	31.330	18.390	13.380	15.020	147.600
23	25.370	19.450	15.270	18.630	10.350	31.320	11.370	56.550	12.560	12.710	14.220	105.300
24	31.810	19.100	16.870	17.410	13.220	28.590	8.633	105.200	11.060	12.260	13.710	100.800
25	40.040	17.090	17.280	16.820	18.220	22.560	7.872	47.390	10.320	11.670	13.260	105.300
26	41.160	16.320	16.750	16.030	23.030	24.490	7.468	35.750	9.752	11.190	12.470	100.300
27	55.630	16.190	15.020	15.230	16.920	19.310	7.685	31.410	9.378	10.620	12.850	62.630
28	81.420	15.360	13.700	14.370	15.400	17.100	10.090	62.590	8.850	10.330	12.840	49.080
29	66.420		20.880	13.890	12.760	20.360	18.360	41.710	8.566	9.935	11.960	39.970
30	59.830		80.260	13.390	11.510	15.960	16.960	32.640	8.210	9.684	14.970	66.380
31	61.290		49.260		10.440		12.070	29.810		9.542		133.600
Average	28.890	27.890	19.950	49.330	11.700	17.980	10.150	38.540	17.240	32.280	21.080	66.670
Lowest	11.030	15.360	11.960	13.390	8.215	8.710	7.468	9.913	8.210	7.876	8.397	29.210
Highest	81.420	62.070	80.260	113.600	23.030	41.750	18.360	105.200	43.790	207.100	90.100	163.700
Peak flow	113.800	86.100	119.500	157.700	31.710	70.830	25.150	206.700	59.880	431.700	142.000	363.700
Day of peak	27	7	31	7	25	12	29	24	2	6	8	21
Monthly total (million cu m)	77.37	67.48	53.42	127.90	31.35	46.60	27.20	103.20	44.69	86.45	54.63	178.60
Runoff (mm)	85	74	59	140	34	51	30	113	49	95	60	196
Rainfall (mm)	104	54	107	124	82	144	82	210	57	125	106	253

Statistics of monthly data for previous record (Mar 1957 to Dec 1984)

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Mean flows	Avg.	51.680	42.460	34.750	27.250	17.620	10.820	7.949	9.624	16.810	28.790	39.740	49.860
	Low	10.850	12.690	10.010	8.122	6.124	4.274	3.390	2.699	2.941	4.303	16.030	20.380
	(year)	1964	1963	1962	1974	1984	1957	1976	1976	1959	1978	1975	1963
	High	88.650	95.710	100.700	45.110	46.590	26.740	27.490	16.790	45.680	86.350	99.840	112.700
	(year)	1974	1958	1981	1960	1983	1972	1968	1958	1974	1967	1960	1959
Runoff	Avg.	152	114	102	63	52	31	23	28	48	85	113	146
	Low	32	34	29	23	18	12	10	8	8	13	46	60
	High	260	254	296	128	137	76	81	49	130	254	284	331
Rainfall	Avg.	159	114	113	82	93	74	75	94	132	134	151	165
	Low	28	11	15	8	31	17	21	25	8	19	74	46
	High	331	223	303	175	221	142	137	188	259	325	323	351

Summary statistics

	For 1985		For record preceding 1985		1985 As % of pre-1985
Mean flow (m^3s^{-1})	28.500		27.640		103
Lowest yearly mean			14.880	1973	
Highest yearly mean			44.050	1960	
Lowest monthly mean	10.150	Jul	2.699	Aug 1976	
Highest monthly mean	66.670	Dec	112.700	Dec 1959	
Lowest daily mean	7.468	26 Jul	1.607	27 Aug 1976	
Highest daily mean	207.100	6 Oct	585.400	27 Dec 1979	
Peak	431.700	6 Oct	945.000	27 Dec 1979	
10 %ile	64.050		63.520		101
50 %ile	17.350		16.570		105
95 %ile	8.573		4.290		200
Annual total (million cu m)	898.80		872.30		103
Annual runoff (mm)	986		957		103
Annual rainfall (mm)	1448		1386		104
(1941-70 rainfall average (mm)			1415)		

Factors affecting flow regime

- Reservoir(s) in catchment.

Station description

Velocity-area station. Intake to canal upstream of gauge. Low flows measured accurately at alternative station 056010 Trostrey weir

062001 Teifi at Glan Teifi 1985

Measuring authority: WELS
First year: 1959

Grid reference: SN 244416
Level stn. (m OD) 5 18

Catchment area (sq km): 893 6
Max alt. (m OD): 595

Daily mean gauged discharges (cubic metres per second)

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	44.830	56 170	11 290	55 370	12 820	7.212	19 950	15 620	21 350	7.371	7 891	65.250
2	38 100	45.770	11 690	57.030	12 290	6 755	16 540	14 420	27 840	10 050	8 227	95.210
3	31 840	39 780	16.340	74 110	11 560	6.461	14 350	13 710	29.300	19 160	7.940	84 790
4	27 280	34 440	22 960	81 420	10 560	6 145	12 890	16.410	29 390	19 860	7.711	82.100
5	23.920	29 900	18.170	86 180	11 060	5.914	13 260	30 340	28.370	17 400	8 216	61 090
6	21.690	29 250	16 760	75 430	15 890	7.048	11.910	26 330	24.840	86.150	8.745	75 310
7	19 780	43 890	22.090	79 550	13.070	10 080	10 790	27.460	21 890	83 630	9.809	70 870
8	19.390	51 140	19 430	80 800	11 070	8 795	10 140	24.160	20 020	64.570	22 430	62 810
9	22 880	43 880	17 710	67 070	10.200	8 175	9 677	22 780	18 580	53 250	38 630	51 090
10	19 230	33 630	17 070	52 950	9 823	8.720	8.734	19 860	17 090	43 530	41 210	46 650
11	17 220	27 570	16 270	73 850	9 514	13 070	8 518	32 810	15 690	36 270	36 880	44 350
12	15 920	24 520	15 230	64 120	8 994	36 760	8 518	33 290	14.530	29.610	31 840	39.450
13	15 050	21 810	15 550	54 470	8 785	29 330	8 589	47 340	13 430	25 280	26.790	48 050
14	13 860	19 730	15 600	44.500	8 644	19.610	10 240	53 860	13.530	22 530	37 460	44.380
15	13 480	17 260	15 200	37 600	10 660	13 640	9.907	80 150	13 070	20 410	39.480	42.640
16	12 460	15 880	16 350	32 050	11.210	11 050	9 353	63 780	12 460	18 470	54 200	37.350
17	11 840	15 360	16 830	27 350	9 199	10 000	9 891	51 300	13.170	17 160	47 990	34 540
18	11 780	14.360	15 640	24 100	8 369	9.750	11.780	46 360	12 420	16 060	40 050	38.590
19	11 280	13 370	14 800	21.660	7.924	8 984	11 720	45 230	11 670	15 000	33.740	36 800
20	12 060	13 150	14 320	19.740	7 771	8.866	10.360	44 530	11.440	14 050	28 640	36 250
21	71 490	13 370	15 870	18 290	8 128	14.890	8 952	38 380	11.290	13 150	24 930	111.900
22	49 480	13 200	16.310	16.850	8 820	22 710	12.950	33.170	11 600	12 260	22.240	152 800
23	32 800	13 330	19 600	15 530	8 628	29 630	13 830	64.230	10 820	11 640	20 070	115.500
24	35 700	13 150	24 370	13 960	10 130	41 820	10 690	87.050	9.963	11 110	18.270	81 170
25	37.630	11 940	26 050	13 090	11 400	29 590	9 288	64.100	9 506	10 560	16 950	63.530
26	34 530	11.280	23 300	12 280	11 770	24 040	9 025	50.880	8 973	10 140	16.070	53 850
27	44 030	11.430	20 960	11 800	10 150	20.990	13 910	43 170	8.607	9.788	15 700	45.190
28	65.220	11 260	19 020	12 140	10 390	19 370	18 680	39 930	8 217	9.559	15.250	37 750
29	73 240		25 550	15 320	9 528	27 480	20 930	32 810	7 844	9 146	14.360	31 570
30	75 450		39 460	15 560	8.406	23.960	23 350	27 410	7 622	8 450	15 580	69.520
31	69.970		37 220		7 713		19 420	24 640		8 112		115.800
Average	32 050	24 640	19 260	41 810	10 140	16 360	12.520	39 210	15 480	23 670	23 910	63 750
Lowest	11 280	11 260	11 290	11 800	7.713	5 914	8 518	13 710	7 622	7 371	7.711	31 570
Highest	75 450	56 170	39 460	86 180	15 890	41.820	23 350	87.050	29.390	86 150	54 200	152.800
Peak flow	85.950	62 750	45 660	88.170	17 000	45 820	27 490	108 600	32 460	102 700	72 740	166.000
Day of peak	29	1	31	5	6	24	29	23	3	6	9	21
Monthly total (million cu m)	85 83	59.60	51 58	108 40	27.17	42.41	33 54	105.00	40 13	63 39	61 97	170.70
Runoff (mm)	96	67	58	121	30	47	38	118	45	71	69	191
Rainfall (mm)	100	42	107	114	57	142	105	180	50	89	111	220

Statistics of monthly data for previous record (Jul 1959 to Dec 1984—incomplete or missing months total 0.3 years)

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Mean flows	Avg	47 370	39 440	30 820	21 080	18 840	11 320	7 967	10 850	17 100	35 660	45 850	53.250
	Low	7 086	11 140	8 281	7 481	4 227	2 975	1 818	1 128	1 072	3 887	16 060	17 820
	(year)	1963	1965	1962	1974	1984	1984	1984	1976	1959	1972	1983	1963
	High	106 000	81.100	96 730	35 490	36.780	41.700	24 930	29.350	48.680	102 000	78 080	93.960
	(year)	1974	1974	1981	1966	1979	1972	1968	1966	1974	1981	1977	1965
Runoff	Avg	142	108	92	61	56	33	24	33	50	107	133	160
	Low	21	30	25	22	13	9	5	3	3	12	47	53
	High	318	220	290	103	110	121	75	88	141	306	226	282
Rainfall	Avg	147	97	101	83	81	78	77	95	124	150	155	157
	Low	28	12	25	10	29	17	25	16	10	40	76	28
	High	326	213	312	163	168	148	140	168	242	293	279	315

Summary statistics

	For 1985		For record preceding 1985		1985 As % of pre-1985
Mean flow (m^3s^{-1})	26 950		28 260		95
Lowest yearly mean			18.860	1964	
Highest yearly mean			38 230	1974	
Lowest monthly mean	10 140	May	1 072	Sep 1959	
Highest monthly mean	63 750	Dec	106 000	Jan 1974	
Lowest daily mean	5 914	5 Jun	0.731	29 Aug 1976	
Highest daily mean	152 800	22 Dec	275 100	27 Dec 1979	
Peak	166.000	21 Dec	303 300	27 Dec 1979	
10 %ile	61 020		63.210		97
50 %ile	18.010		19 040		95
95 %ile	8.200		2.972		276
Annual total (million cu m)	849 90		891 90		95
Annual runoff (mm)	951		998		95
Annual rainfall (mm)	1317		1345		98
[1941-70 rainfall average (mm)			1333]		

Factors affecting flow regime

- Reservoir(s) in catchment.
- Abstraction for public water supplies.

Station description
Velocity-area station

065001 Glaslyn at Beddgelert 1985

Measuring authority: WELS
First year: 1961
Grid reference: SH 592478
Level stn. (m OD) 32.95
Catchment area (sq km): 68.6
Max alt. (m OD): 1090

Daily mean gauged discharges (cubic metres per second)

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	4 241	6 136	1.924	15.250	4 426	1 728	2 249	4.753	3.137	1.950	0.884	18 600
2	3 348	3 947	3 118	12.900	3.889	1.288	2.019	12 880	9 494	8.509	0 887	27.230
3	3.135	5.068	16 040	25 970	2.835	1 056	1.785	4.644	12 840	16.840	0.781	10 920
4	2 801	4.611	20 700	15.510	2.212	0 990	1.604	12.590	7.464	15.960	2.151	14 650
5	2.084	3 718	7 019	15.380	2 129	1.256	1.690	9 097	6.960	6.441	8.128	10.030
6	1 651	6.016	8 236	13 040	1.792	3.754	1 357	5.133	4.338	19.270	4.361	17 620
7	1 574	11.500	7 766	10 040	1 633	3.156	1 089	7.129	4 492	7 315	7 855	7 554
8	1.868	9.998	4 525	6.983	1.707	3 088	1 002	5 290	6.203	16.550	20 410	5.284
9	2.239	4.980	3 431	4 841	1.607	4 381	1 015	4 128	4 570	10.190	18.650	4 359
10	2 129	3.310	3.091	7.472	1.517	3.323	1 030	3.661	3.990	7.794	11.960	5 438
11	1.943	3.311	2.575	30.750	1.285	15 550	2.706	18.830	3 442	6 528	6 896	4 721
12	1 598	2.277	2 313	14 110	1 045	13 080	11.130	10.230	2.984	4.259	4.973	24 250
13	1.278	2.172	2.254	9.859	1 448	5 462	12 170	16 630	3 295	3.184	3.883	26 850
14	1.160	2.023	2 027	7.170	2 456	3 327	5.274	15.130	6 780	2 519	8.970	8 735
15	1 220	1 873	2 002	5.057	7 007	2 363	7 901	36 930	3 868	2.488	7 033	6 074
16	1.210	1 572	1 886	4 231	3 759	1 816	9 870	13.890	5 970	2 437	12.600	4 249
17	1 094	1.258	1 607	3.593	2.590	3 588	28 480	6.179	4.982	2.189	5 468	7 780
18	0.982	1 165	1 458	3 083	1 984	3.355	10 560	17 810	6 061	1 995	3 691	7.950
19	0.864	1.206	1 411	2 642	1 749	2 262	5 359	13 250	5 641	1 631	3 009	5 745
20	0 807	1 812	1 399	2.241	2 085	2.890	3.555	27 660	4.258	1.258	2 444	17.200
21	12 170	2 245	1 344	1.803	2 516	10 680	2.738	8.441	17 030	1 062	2 079	55.630
22	5 740	2 125	1 281	1 600	2 313	11 430	2.968	5 452	8 460	1 018	1 849	20.740
23	3 245	3 895	1 429	1 727	3.706	7 971	2 804	34 820	5 393	0 964	1 584	13 490
24	5 627	2 862	1 530	1 735	7 933	4 280	2.753	18.970	4 324	0 943	1 330	7 830
25	4 756	2.123	1 572	1 498	11 760	3 052	2 545	13 210	3 940	0 893	1.223	5 629
26	3 146	1 810	1 533	1 352	5 916	3.079	3.581	8.664	4 106	0 814	1 356	3 934
27	5.271	1.711	1 381	1 202	3 874	3 317	4.240	34.250	3.583	0 701	1 708	3 058
28	11 320	1 644	1 276	1 862	3.226	2 859	6 050	16 450	2.617	0 672	1 815	2 532
29	24.420		16 580	9 158	2 712	2 229	4 091	6 281	1.900	0 748	2 010	2.268
30	14 370		11.310	6 744	2 412	2.163	3 168	4 455	1.802	0 845	6 185	4 500
31	11.160		8.425		2 173		2.872	3.839		0 885		7 740
Average	4 466	3.442	4 595	7 960	3 151	4 292	4 828	12 860	5 464	4 802	5 206	11.700
Lowest	0 807	1.165	1.276	1 202	1 045	0 990	1 002	3 661	1.802	0 672	0 781	2 268
Highest	24 420	11 500	20 700	30.750	11.760	15 550	28 480	36 930	17 030	19 270	20 410	55 630
Peak flow	36 750	16.260	43 890	54 500	17 770	27 080	64 540	66 830	25 790	32 430	31 880	75.980
Day of peak	29	7	3	11	25	11	17	23	21	8	9	21
Monthly total (million cu m)	11 96	8 33	12 31	20 63	8 44	11.13	12.93	34 45	14 16	12 86	13.49	31.33
Runoff (mm)	174	121	179	301	123	162	188	502	206	187	197	457
Rainfall (mm)	187	86	200	249	118	258	254	563	256	205	253	478

Statistics of monthly data for previous record (Dec 1981 to Dec 1984—incomplete or missing months total 1.8 years)

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Mean flows	Avg.	7 832	5 733	5.649	3 513	3 391	3 239	3 236	4.689	5 957	7 192	8 612	8.690
	Low	1 535	1.369	1.734	0.814	0.325	1 173	0 495	0 752	0.355	1 984	3.399	1.793
	(year)	1963	1965	1984	1974	1980	1984	1984	1983	1972	1972	1983	1963
	High	13 630	13 040	15 610	8 228	6.790	7 429	7 132	7.972	11 830	13 370	14 460	16 400
	(year)	1983	1977	1981	1975	1979	1971	1978	1978	1974	1980	1980	1965
Runoff	Avg	306	204	221	133	132	122	126	183	225	281	325	339
	Low	60	48	68	31	13	44	19	29	13	77	128	70
	High	532	460	609	311	265	281	278	311	447	522	546	640
Rainfall	Avg.	319	204	236	180	181	199	199	249	296	322	366	338
	Low	28	41	69	20	39	78	66	16	62	136	130	74
	High	563	475	638	482	334	358	380	437	508	726	564	700

Summary statistics

	For 1985		For record preceding 1985		1985 As % of pre-1985
Mean flow (m^3s^{-1})	6 089		5 647		108
Lowest yearly mean			4 185	1968	
Highest yearly mean			6 942	1980	
Lowest monthly mean	3 151	May	0 325	May 1980	
Highest monthly mean	12.860	Aug	16 400	Dec 1965	
Lowest daily mean	0 672	28 Oct	0	25 Sep 1972	
Highest daily mean	55 630	21 Dec	85 850	27 Oct 1980	
Peak	75 980	21 Dec	130 200	16 Jul 1973	
10 %ile	14.770		13 010		114
50 %ile	3 655		3 165		115
95 %ile	1 021		0 537		190
Annual total (million cu m)	192.00		178.20		108
Annual runoff (mm)	2799		2598		108
Annual rainfall (mm)	3107		3089		101
[1941-70 rainfall average (mm)			2966]		

Factors affecting flow regime

- Regulation for HEP.

Station description
Velocity-area station

067015 Dee at Manley Hall 1985

Measuring authority: WELS
First year: 1970
Grid reference: SJ 348415
Level stn (m OD) 25 35
Catchment area (sq km): 1019.3
Max alt (m OD) 884

Daily mean gauged discharges (cubic metres per second)

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	30 170	47 010	17 340	51.300	10 800	11 040	16 870	10 490	23 920	10 620	11 730	64.140
2	27 070	38 830	17.590	50 100	10 180	10 430	15 210	11 340	26 280	9.190	11.740	84 830
3	24 620	33.340	23 620	54 820	9 551	10 000	13.760	14.880	38.790	11 700	11 630	78.990
4	22 760	29.170	38.660	58 630	9.193	9 821	12 210	18 130	37 160	14.580	11.400	81 450
5	20 250	25.310	36 320	59.620	9 717	10.960	11 450	25 600	37.430	17 180	22 280	71.780
6	15.340	22 930	31 860	60 170	9 952	24 760	10 210	22.650	32 590	56 450	21 120	82.590
7	13 350	33 910	30 800	63 960	9 832	22 930	9 031	17 640	25 860	60.000	22.460	72 610
8	12 540	32 120	26 440	57 550	8 798	17 160	10 680	18 070	22 710	63 820	49 750	58.310
9	15.570	28 400	23 440	50 100	8 350	16.510	11.320	19 800	20 480	62.450	75.100	49 220
10	23 050	24.060	21 230	39 750	8 661	16 650	11 040	17.270	18.630	54 540	71 990	44.110
11	23.950	22.350	19 000	58 780	8 764	19.750	10.510	23 330	16.360	45 360	63 190	40.160
12	24 130	20.500	17 590	58 470	8.658	47 490	10 900	34 450	13 280	36.680	50.680	36 330
13	24 140	19.480	16.490	68 030	12 350	54 530	12 800	43.330	12.420	31 300	42 330	63.900
14	22.340	17.510	15 990	76.230	15 440	33 820	15 380	48 100	12.140	27.280	44 520	56 880
15	20 190	15 020	15 600	73 000	21 330	23 620	15 880	63 120	12 220	24 570	55.720	47.330
16	18.920	14 510	15 250	59 140	14 560	20.800	15.790	78 510	12 460	22 740	50 250	40.220
17	16.810	13 470	14 560	40 470	12 370	17.310	12 290	67.580	14.460	21.140	41 930	36 440
18	16 180	12 640	13 840	31.690	11 690	16.250	12.110	59 720	15 370	19.740	35.560	37 770
19	15 070	12 460	12.920	29 050	11 740	15 120	18 600	49 470	14.360	18 540	32.810	36 270
20	13 490	16 860	12 050	26.500	15 010	14 960	18 150	42 310	13.450	17.550	30 480	42 790
21	25 860	21 060	11 940	23 400	19 200	16 420	16 730	38 730	12.900	16.740	27.890	86 660
22	32 520	20.300	12 510	20 460	17 360	18 430	15.300	36 300	17.890	16 050	25.620	96 090
23	23 390	25 950	16 330	17 830	16 130	18.530	15 530	42 280	19 380	15.360	23 360	90 880
24	23.260	24 220	18.660	14.390	16 360	19.210	15 500	70.080	18.460	14 540	19.990	74 090
25	28 560	20 450	17 600	12 710	16 510	19.120	14 760	70 500	16.730	13.780	18 380	58 900
26	24 490	18 550	19 930	11.960	17 930	22.770	13 560	58 610	15.080	13.260	18 820	46 980
27	22 340	18 100	19 260	11 580	17 700	23 000	10 550	47 360	13 540	12 280	19 930	38.880
28	31 290	17 470	16 470	11 300	17 230	20.100	13 050	47 640	12 380	11.410	19.400	33 080
29	43 600		20 570	12 970	15 330	17 520	18 210	41 150	12 570	9.669	18 490	27 810
30	50 980		35 480	12 090	13 430	17 070	17.260	32 750	12.290	8 685	24 130	29.230
31	56 260		33 950		11.700		14.140	24 500		8.668		48 720
Average	24 600	23 070	20 750	40 540	13 090	20 200	13 830	38.570	19 050	24 710	32 420	56 690
Lowest	12 540	12 460	11 940	11 300	8 350	9.821	9 031	10 490	12 140	8 668	11 400	27 810
Highest	56 260	47 010	38 660	76 230	21 330	54 530	18.600	78 510	38.790	63.820	75.100	96 090
Peak flow	66 780	51 870	43 590	85 620	24 660	57.880	19 460	91 230	44 630	100 600	85 350	128 500
Day of peak	29	1	4	14	15	12	19	16	3	6	10	21
Monthly total (million cu m)	65 88	55 81	55 58	105 10	35 06	52 37	37 05	103 30	49.39	66.17	84 04	151 80
Runoff (mm)	65	55	55	103	34	51	36	101	48	65	82	149
Rainfall (mm)	72	46	99	122	82	128	78	184	48	94	154	188

Statistics of monthly data for previous record (Oct 1937 to Dec 1984)

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Mean flows	Avg.	52 100	45 670	32 880	23 570	17 730	13 650	13 040	16 850	23.840	33 540	47 480	52 160
	Low	13 460	7 858	8 129	7.841	4 274	3 740	3 113	3 288	3 052	4 217	11.580	18.610
	(year)	1964	1963	1943	1938	1938	1961	1949	1955	1949	1947	1937	1963
	High	109 300	106 700	103 700	61.030	41 950	31 240	40 270	59.400	69.470	92 470	103 000	105.200
	(year)	1948	1946	1947	1970	1969	1972	1957	1957	1950	1967	1960	1965
Runoff	Avg	137	109	86	60	47	35	34	44	61	88	121	137
	Low	35	19	21	20	11	10	8	9	8	11	29	49
	High	287	253	273	155	110	79	106	156	177	243	262	277
Rainfall (1969-1984)	Avg.	159	110	122	76	82	80	75	96	137	135	174	152
	Low	60	37	54	10	39	16	27	9	45	41	66	46
	High	287	236	233	182	151	150	144	157	306	221	249	314

Summary statistics

	For 1985		For record preceding 1985		1985 As % of pre-1985
Mean flow (m^3s^{-1})	27 320		30 970		88
Lowest yearly mean			20.460	1964	
Highest yearly mean			44 600	1954	
Lowest monthly mean	13 090	May	3.052	Sep 1949	
Highest monthly mean	56 690	Dec	109 300	Jan 1948	
Lowest daily mean	8.350	9 May	1 926	30 Jul 1949	
Highest daily mean	96 090	22 Dec	521.000	14 Dec 1964	
Peak	128 500	21 Dec			
10 %ile	58 070		71.000		82
50 %ile	19 750		19 440		102
95 %ile	10 300		4.814		214
Annual total (million cu m)	861 60		977 30		88
Annual runoff (mm)	845		959		88
Annual rainfall (mm)	1295		1398		93
[1941-70 rainfall average (mm)			1403]		

Factors affecting flow regime

- Reservoir(s) in catchment.
- Abstraction for public water supplies.
- Flow reduced by industrial and/or agricultural abstractions.
- Augmentation from surface water and/or groundwater.

Station description

Asymmetrical compound Crump weir, superseding Erbistock, 067002, 1 km downstream. The two records have been combined (and corrected for area) to give an extended data series for this station

068001 Weaver at Ashbrook 1985

Measuring authority: NWWA
First year: 1937

Grid reference: SJ 670633
Level stn. (m OD) 16 31

Catchment area (sq km): 622 0
Max alt. (m OD): 222

Daily mean gauged discharges (cubic metres per second)

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	7.301	11.960	5.506	4.370	3 432	2.747	2.800	1 659	1.625	1 313	1.613	10 670
2	5.740	8 773	5 025	4.163	2 999	2.558	2.341	1.747	1 801	1.336	1.564	9.788
3	5.028	6 638	7.532	4.728	2 748	2 464	2 137	1.610	2 122	1 679	1 427	9.262
4	4.465	5.810	8 233	7.075	2 594	2 439	2 064	1.784	1 898	1 569	1.506	13.030
5	3 821	5 060	5.242	8.896	2 610	2.572	1.985	2 438	1 794	1.338	2.392	11.660
6	3.513	4.433	4 377	10.250	2.486	4.237	1.932	1.956	1 708	5 575	2 230	16.140
7	3 628	5 799	4 363	13.030	2 387	4 679	1 885	1 769	1 678	6 241	1.988	17.360
8	3.583	8 689	3.972	17.480	2 319	3 659	1 824	1 684	1 694	4 216	5 495	9.909
9	3.411	7.161	3.514	10.480	2 262	4.222	1.593	1 628	1.853	3 487	11.910	6 987
10	3 231	5 000	3.248	10 180	2 201	3.786	1.436	1.539	1 792	2 664	16 400	7.833
11	3 152	5.065	3.122	22 410	2 131	5.285	1 681	4 449	1.734	2 294	10 130	10 540
12	3 115	5 157	3 096	19 420	2 104	11 430	1.751	4 265	1 709	1 931	5.968	9.709
13	3.093	4.355	3 045	12.210	2.407	6 475	1.855	3 027	1.630	1 789	4 047	25.980
14	2 970	3.714	3.109	12.680	4 690	4.295	2 190	2 841	2.140	1 766	3.596	14.770
15	2 926	3 181	3 859	8.317	8.512	3 512	1.854	2 652	1 802	1 731	4.591	9 376
16	2 834	3.106	6.130	6.160	4 291	3 037	1.833	2 711	1 690	1 674	7.578	6.736
17	2.845	3 031	6 444	5.041	3.264	2 839	1.830	2.618	1 752	1 646	9.644	8 882
18	2 840	2.803	5.558	4 328	2.806	2.740	1.771	2 453	1.635	1 618	6 041	9.538
19	2 751	2 638	5 338	3.878	3 978	2 747	2.241	2 444	1 589	1 606	4 443	7.806
20	2 877	2 799	4 669	3.556	16.160	2 775	2 497	2 306	1 587	1 578	4 105	6 032
21	15 100	3.451	4.111	3 375	15 860	3 100	1.832	2 144	1 584	1.543	3.500	16.550
22	16 360	4 609	3 948	3.127	10 830	2 980	1.828	1.966	1 517	1 289	3 177	33.260
23	8 671	6 193	7 334	2.878	7.381	2 927	1 688	2.308	1 456	1 522	2.944	19 420
24	7.701	6.083	10 100	2.781	5 324	2 877	1.529	2 627	1.478	1 549	2.806	12.380
25	8 938	4 644	7 319	2.731	4 171	2.631	1.506	2 861	1 440	1 512	2 803	10 640
26	6.898	4.453	6 530	2 668	4.532	2 598	1 473	2 546	1.398	1 472	2.720	7 800
27	5 409	4 299	6 470	2 617	8 314	2 432	1.524	2 186	1 306	1 501	3 728	5.950
28	7.303	4 422	5.067	3.112	12 470	2 274	1.810	1 942	1 367	1 485	4.528	5.037
29	18.150		4 383	3 913	5.758	2 159	2 334	1.858	1 321	1 485	4 034	4 163
30	23 260		4 069	4 089	3.850	2 766	2 274	1 809	1 303	1 494	9.649	3.880
31	17 470		3 853		3 127		1.841	1 744		1 509		4 015
Average	6 709	5 119	5 115	7 331	5 097	3.508	1.908	2 309	1.647	2 046	4.885	11.130
Lowest	2 645	2 638	3.045	2 617	2 104	2 159	1 436	1 539	1 303	1 289	1 427	3.880
Highest	23.260	11 960	10 100	22 410	16.160	11 430	2 800	4.449	2 140	6 241	16.400	33.260
Peak flow	27 480	14 130	10.780	26.990	19 330	13 340	3 465	7 131	2 517	11.100	21.990	35.870
Day of peak	30	1	24	11	20	12	20	11	3	6	9	21
Monthly total (million cu m)	17 97	12 38	13.70	19 00	13.65	9 09	5 11	6 18	4 27	5.48	12 66	29 82
Runoff (mm)	29	20	22	31	22	15	8	10	7	9	20	48
Rainfall (mm)	40	24	45	70	76	75	43	73	21	47	78	74

Statistics of monthly data for previous record (Oct 1937 to Dec 1984—incomplete or missing months total 1.8 years)

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Mean flows	Avg	10 420	9 437	8.631	4 660	3 829	2.757	2 801	3 009	3.376	4 493	7.818	9 330
	Low	1 965	2 376	2 183	1.490	0 903	1 125	0.736	0 641	0 919	1 184	1 303	2 429
	(year)	1964	1965	1938	1938	1946	1962	1976	1976	1964	1947	1942	1947
	High	21 950	19.860	18.580	10 360	22 720	6.995	12 750	8 404	16.990	15.970	22 540	22 250
	(year)	1939	1980	1947	1983	1969	1954	1968	1971	1957	1954	1954	1965
Runoff:	Avg	45	37	29	19	16	11	12	13	14	19	33	40
	Low	8	9	9	6	4	5	3	3	4	5	5	10
	High	95	80	80	43	98	29	55	36	71	69	94	96
Rainfall:	Avg	68	51	51	48	61	58	68	71	68	68	77	71
	Low	18	8	18	2	18	13	16	6	5	15	13	10
	High	145	145	127	98	194	142	168	175	169	137	170	152

Summary statistics

	For 1985		For record preceding 1985		1985 As % of pre-1985
Mean flow (m^3s^{-1})	4.735		5 697		83
Lowest yearly mean			2.752	1964	
Highest yearly mean			9 209	1954	
Lowest monthly mean	1 647	Sep	0.641	Aug 1976	
Highest monthly mean	11.130	Dec	22 720	May 1969	
Lowest daily mean	1 289	22 Oct	0.394	17 Aug 1976	
Highest daily mean	33.260	22 Dec	84.950	9 Feb 1946	
Peak	35 870	21 Dec	212 400	8 Feb 1946	
10 %ile	10.060		12.460		81
50 %ile	3 096		3.247		95
95 %ile	1.494		1.124		133
Annual total (million cu m)	149 30		179 80		83
Annual runoff (mm)	240		289		83
Annual rainfall (mm)	666		760		88
[1941-70 rainfall average (mm)			754]		

Factors affecting flow regime

- Flow influenced by groundwater abstraction and/or recharge.
- Abstraction for public water supplies.
- Augmentation from effluent returns.

Station description
Velocity-area station. In 1978 V shaped bed control of steel piles with capping installed

071001 Ribble at Samlesbury 1985

Measuring authority: NWWA
First year: 1960
Grid reference: SD 589304
Level stn (m OD): 6 00
Catchment area (sq km): 1145 0
Max alt (m OD): 680

Daily mean gauged discharges (cubic metres per second)

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	18 980	72 330	10 280	89 880	9 080	6 002	4 997	15 950	60 240	10 370	5 515	55 230
2	15 250	36 160	10 930	42 230	7 350	5 263	4 286	24 200	68 600	9 856	5 799	82 410
3	12 740	29 220	20 110	53 240	6 572	4 612	4 020	28 870	102 900	20 570	5 245	57 740
4	11 480	29 130	37 560	72 240	6 336	4 538	3 589	26 900	61 320	18 550	5 325	25 810
5	10 610	21 290	32 090	64 710	6 825	4 563	3 525	145 100	38 770	13 660	39 080	29 830
6	9 867	17 060	16 610	64 510	7 400	4 968	3 405	56 870	24 080	148 100	44 120	53 940
7	10 320	16 920	15 380	64 080	6 297	4 970	3 113	33 530	48 380	67 310	50 040	101 700
8	9 418	16 330	12 580	57 350	5 914	5 311	3 263	25 470	148 900	115 700	73 260	66 250
9	8 708	12 540	9 956	32 750	5 726	8 397	3 741	27 670	58 220	121 900	112 100	26 890
10	8 406	9 870	10 220	37 970	5 725	6 785	3 491	16 170	23 830	67 900	55 030	24 000
11	8 109	12 380	9 390	183 200	5 612	19 490	3 684	63 850	18 390	80 900	26 720	24 780
12	6 856	13 540	8 322	74 410	5 348	64 820	23 180	66 670	15 240	59 110	18 600	110 400
13	7 082	12 530	8 630	88 490	5 675	17 520	27 160	37 660	12 810	38 670	14 930	332 000
14	6 762	11 470	10 000	66 030	23 530	9 797	14 940	38 540	24 430	22 500	13 070	260 400
15	6 749	9 823	9 243	35 680	58 610	7 271	8 084	82 830	25 960	14 770	14 590	147 000
16	6 655	9 512	8 856	26 720	21 620	6 081	6 626	79 110	74 370	13 110	30 350	57 490
17	7 795	9 760	7 810	19 960	11 440	5 556	7 184	33 790	54 470	11 860	26 380	60 640
18	6 428	11 790	6 856	16 450	8 547	5 834	15 340	25 440	29 100	10 820	16 710	62 620
19	6 090	7 699	6 650	14 010	7 470	5 128	9 772	52 280	31 410	9 689	13 950	48 260
20	5 672	6 512	6 191	11 690	6 912	6 184	17 440	86 560	22 410	9 329	12 150	246 400
21	59 810	6 881	5 763	10 420	6 922	6 613	14 670	40 990	293 400	8 850	10 560	350 000
22	53 410	7 721	5 884	9 395	6 565	10 340	33 290	26 150	97 280	8 292	9 750	315 800
23	24 500	17 620	17 940	8 480	6 694	25 380	19 930	41 110	51 740	7 402	9 288	138 000
24	22 130	16 770	22 460	8 000	12 820	16 080	11 450	90 310	37 830	7 093	9 984	53 710
25	44 090	13 770	14 160	7 198	14 660	9 024	9 738	120 300	23 830	6 755	9 475	44 630
26	28 120	13 670	10 990	7 012	23 040	6 824	95 900	56 580	20 160	6 613	8 994	27 290
27	17 270	10 900	8 616	6 897	21 350	6 086	145 700	32 900	19 320	6 167	8 663	19 000
28	78 580	9 513	7 887	7 402	38 580	5 225	115 100	47 560	15 200	6 142	7 350	15 840
29	197 200		39 630	9 317	14 410	4 828	92 460	26 150	12 810	5 878	7 876	13 840
30	82 970		60 530	10 390	9 286	4 806	52 960	20 000	11 610	5 688	46 850	20 010
31	93 540		25 420		7 072		24 270	18 860		5 632		35 660
Average	28 570	16 510	15 390	39 990	12 370	9 943	25 360	51 240	50 900	30 300	23 730	93 790
Lowest	5 672	6 512	5 763	6 897	5 348	4 538	3 113	15 950	11 610	5 632	5 245	13 840
Highest	197 200	72 330	60 530	183 200	58 610	64 820	145 700	145 100	293 400	148 100	112 100	350 000
Peak flow	338 500	91 610	88 300	306 600	83 650	108 200	294 500	295 500	595 900	285 000	203 600	551 000
Day of peak	29	1	30	11	15	12	26	4	21	6	9	21
Monthly total (million cu m)	76 52	39 94	41 21	103 60	33 12	25 77	67 94	137 20	131 90	81 15	61 50	251 20
Runoff (mm)	67	35	36	91	29	23	59	120	115	71	54	219
Rainfall (mm)	83	18	8	109	71	77	133	205	141	81	90	384

Statistics of monthly data for previous record (May 1960 to Dec 1984)

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Mean flows	Avg	51 390	37 940	34 320	25 630	18 900	14 180	15 230	22 980	30 230	41 600	54 240	53 920
	Low	10 610	9 565	11 790	5 601	4 048	5 031	2 638	2 958	5 782	5 716	20 770	15 190
	(year)	1963	1965	1975	1974	1980	1975	1984	1976	1972	1972	1983	1971
	High	80 040	80 890	104 700	54 820	46 460	33 520	40 220	68 920	65 820	118 400	88 610	120 200
	(year)	1983	1966	1981	1970	1967	1966	1960	1967	1968	1967	1963	1965
Runoff	Avg	120	81	80	58	44	32	36	54	68	97	123	126
	Low	25	20	28	13	9	11	6	7	13	13	47	36
	High	187	171	245	124	109	76	94	161	149	277	201	281
Rainfall (1961-1984)	Avg	135	87	104	80	84	90	86	113	140	137	147	136
	Low	18	17	43	3	16	27	21	20	48	50	53	43
	High	224	189	280	171	178	166	158	196	277	304	221	278

Summary statistics

	For 1985		For record preceding 1985		1985 As % of pre-1985
Mean flow (m^3s^{-1})	33 330		33 370		100
Lowest yearly mean			22 040	1971	
Highest yearly mean			45 020	1967	
Lowest monthly mean	9 943	Jun	7 638	Jul 1984	
Highest monthly mean	93 790	Dec	120 200	Dec 1965	
Lowest daily mean	3 113	7 Jul	1 876	22 Jul 1984	
Highest daily mean	350 000	21 Dec	675 000	27 Oct 1980	
Peak	595 900	21 Sep	891 300	12 Dec 1964	
10 %ile	78 580		81 590		96
50 %ile	15 370		16 440		93
95 %ile	5 075		4 386		116
Annual total (million cu m)	1051 00		1053 00		100
Annual runoff (mm)	918		920		100
Annual rainfall (mm)	1473		1339		110
(1941-70 rainfall average (mm)			1329		

Factors affecting flow regime

- Reservoir(s) in catchment.
- Augmentation from effluent returns.

Station description

Original a velocity-area station. A compound weir for more accurate measurement of low and medium discharges was completed in 1970 with Crump profile flat V centre section and horizontal flank weirs of Crump profile. Velocity-area station became the primary gauging site in 1981 due to vandalism at the weir site.

073010 Leven at Newby Bridge 1985

Measuring authority NWWA
First year 1939

Grid reference SD 367863
Level stn (m OD) 37 28

Catchment area (sq km) 247 0
Max alt (m OD) 873

Daily mean gauged discharges (cubic metres per second)

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	14 780	25 800	6 251	20 320	3 679	7 451	4 580	15 480	33 530	12 630	2 023	22 000
2	12 680	24 650	5 069	25 970	3 734	6 264	4 071	16 480	34 370	12 130	1 971	37 990
3	11 330	22 270	4 752	27 720	3 319	5 402	3 775	19 700	40 140	17 930	1 802	43 860
4	9 766	20 240	7 875	27 860	3 175	4 366	3 474	23 270	38 820	21 940	2 198	38 980
5	8 457	17 750	10 020	30 460	3 279	4 084	2 976	25 970	34 030	22 900	5 685	32 840
6	7 769	15 390	9 694	27 800	3 071	3 439	2 497	24 090	29 290	22 520	7 850	26 120
7	6 638	13 330	9 701	25 870	3 014	3 065	2 181	21 800	25 130	23 150	10 890	23 130
8	5 971	11 720	8 711	23 700	2 808	2 584	2 019	20 200	26 440	24 580	14 610	21 070
9	5 409	9 694	7 587	21 130	2 720	2 760	2 168	19 540	24 070	27 090	24 600	18 460
10	4 895	8 039	6 975	18 760	2 716	2 683	1 806	18 010	20 910	27 860	28 250	16 200
11	4 488	6 846	5 841	24 140	2 363	3 527	2 263	18 820	17 910	30 500	25 840	14 250
12	4 003	5 829	4 987	26 400	2 483	8 410	10 540	23 390	14 980	27 680	22 720	19 970
13	3 959	5 083	4 233	29 430	2 199	8 792	16 360	24 280	12 190	23 790	18 730	38 830
14	4 025	4 638	3 701	32 200	2 272	7 794	17 340	24 570	12 690	20 300	16 010	37 200
15	3 380	3 784	3 399	27 340	3 652	6 661	15 100	31 000	13 200	17 130	13 830	33 770
16	3 043	3 402	3 063	23 460	4 936	5 749	14 980	45 280	14 880	14 510	13 860	27 810
17	3 072	3 098	2 637	20 110	4 834	5 005	20 880	41 980	18 230	12 260	14 070	24 090
18	2 916	2 833	2 257	16 890	4 642	5 113	35 410	37 570	19 180	10 420	12 900	22 570
19	2 612	2 892	2 078	14 140	4 779	4 712	33 440	37 110	24 060	8 788	11 700	20 300
20	2 664	2 934	2 289	12 310	4 206	4 029	27 870	37 260	23 780	7 547	10 320	24 970
21	3 705	2 802	2 637	10 140	3 404	4 679	24 120	37 280	37 020	6 597	8 977	61 350
22	5 144	2 975	2 431	8 263	3 056	5 745	22 550	33 660	46 230	5 747	7 815	65 300
23	5 799	7 392	2 081	6 510	2 894	7 343	23 320	32 500	45 030	4 868	6 897	58 100
24	6 035	9 865	1 831	5 123	5 266	8 703	21 740	47 470	40 920	4 362	6 113	50 560
25	6 325	9 417	2 137	4 345	9 512	8 338	19 210	48 980	34 760	3 858	5 485	42 570
26	6 324	8 557	2 336	3 472	12 460	7 407	22 080	44 600	29 440	3 236	4 881	34 660
27	6 443	7 700	1 748	3 373	13 290	6 560	21 980	42 310	25 350	2 889	4 388	26 260
28	7 414	7 023	1 578	3 214	12 880	5 992	21 830	44 990	21 320	2 674	4 213	21 430
29	11 890		3 993	3 466	11 730	5 400	23 260	40 750	17 520	2 556	4 132	17 320
30	16 680		11 420	3 497	10 190	4 840	21 020	34 720	14 720	2 376	4 623	14 520
31	23 350		13 510		8 649		18 300	30 140		2 314		14 610
Average	7 128	9 498	5 059	17 580	5 200	5 563	14 940	31 070	26 340	13 780	10 560	30 680
Lowest	2 612	2 802	1 578	3 214	2 199	2 584	1 806	15 480	12 190	2 314	1 802	14 250
Highest	23 350	25 800	13 510	32 200	13 290	8 792	35 410	48 980	46 230	30 500	28 250	65 300
Peak flow	25 120	26 490	15 430	34 200	13 800	10 040	36 230	49 990	47 040	31 090	28 900	68 930
Day of peak	31	1	31	14	27	12	18	24	22	11	10	21
Monthly total (million cu m)	19 09	22 98	13 55	45 57	13 93	14 42	40 01	83 22	68 27	36 90	27 38	82 17
Runoff (mm)	77	93	55	184	56	58	162	337	276	149	111	333
Rainfall (mm)	115	49	136	189	95	120	269	428	269	133	194	311

Statistics of monthly data for previous record (Jan 1939 to Dec 1984)

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Mean flows	Avg	19 830	16 730	13 180	11 000	7 627	6 461	7 243	10 100	14 420	17 400	20 490	20 880
	Low	1 935	0 974	3 699	1 796	0 641	0 545	0 775	0 652	0 560	1 438	6 873	8 208
	(year)	1963	1963	1962	1974	1980	1978	1941	1984	1959	1972	1983	1963
	High	38 020	31 030	29 970	21 640	16 940	18 730	16 990	25 580	33 930	50 170	36 350	40 110
	(year)	1975	1945	1981	1949	1964	1972	1953	1962	1946	1967	1954	1954
Runoff	Avg	215	165	143	115	83	68	79	110	151	189	215	226
	Low	21	10	40	19	7	6	8	7	6	16	72	89
	High	412	304	325	227	184	197	184	277	356	544	381	435
Rainfall	Avg	231	152	154	117	118	126	145	178	221	221	237	232
	Low	26	20	32	12	22	17	40	7	29	30	17	90
	High	439	295	341	243	241	269	287	361	427	557	428	431

Summary statistics

	For 1985		For record preceding 1985		1985 As % of pre-1985
Mean flow (m^3s^{-1})	14 820		13 770		108
Lowest yearly mean			9 234	1973	
Highest yearly mean			21 840	1954	
Lowest monthly mean	5 059	Mar	0 545	Jun 1978	
Highest monthly mean	31 070	Aug	50 170	Oct 1967	
Lowest daily mean	1 578	28 Mar	0 108	7 Oct 1972	
Highest daily mean	65 300	22 Dec	115 900	2 Dec 1954	
Peak	68 930	21 Dec	135 800	2 Dec 1954	
10 %ile	33 470		30 420		110
50 %ile	10 430		10 120		103
95 %ile	2 287		1 185		193
Annual total (million cu m)	467 40		434 60		108
Annual runoff (mm)	1892		1759		108
Annual rainfall (mm)	2308		2132		108
(1941-70 rainfall average (mm)			2189)		

Factors affecting flow regime

- Reservoir(s) in catchment.

Station description

Compound Crump weir supersedes the original station 073001 in 1970 All flow records from 1939 combined in single sequence

076007 Eden at Sheepmount 1985

Measuring authority: NWWA
First year: 1967
Grid reference: NY 390571
Level stn. (m OD) 6.97
Catchment area (sq km) 2286.5
Max alt. (m OD): 950

Daily mean gauged discharges (cubic metres per second)

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	51.270	93.850	17.800	148.200	23.640	20.350	14.980	33.470	111.400	36.480	16.840	182.700
2	44.180	66.500	17.570	100.400	19.860	18.690	14.200	55.280	95.670	38.370	16.920	129.400
3	38.830	52.880	17.970	73.600	18.130	17.330	13.580	67.640	163.700	74.440	16.600	129.500
4	36.150	51.210	40.170	73.630	17.270	16.520	12.960	91.200	107.500	131.000	17.060	83.040
5	36.680	42.520	38.330	94.520	17.030	15.970	12.660	179.500	78.100	80.900	52.460	76.260
6	35.360	36.430	27.970	82.830	17.870	15.300	12.520	81.330	62.040	76.350	48.860	80.420
7	36.610	33.080	24.980	65.900	17.170	15.230	12.000	58.250	153.800	93.220	61.210	115.900
8	32.260	29.780	23.330	67.620	15.870	15.800	12.600	49.390	193.800	95.380	92.650	114.800
9	29.110	25.420	21.230	53.570	15.240	21.660	15.420	49.710	88.450	86.460	200.600	70.850
10	27.180	22.070	23.700	46.390	15.210	19.800	13.360	39.200	66.120	75.610	114.700	57.950
11	25.360	20.560	23.040	171.900	14.760	26.990	12.620	80.500	53.310	82.740	68.650	59.740
12	23.450	20.000	20.020	119.700	14.140	76.290	20.530	110.800	46.180	59.080	53.050	100.300
13	23.460	20.600	19.620	114.600	13.760	38.190	41.480	69.860	40.750	49.320	42.880	160.600
14	22.450	18.270	18.710	111.000	18.320	27.560	44.840	83.460	40.540	42.830	39.590	83.670
15	21.810	16.930	17.940	75.280	45.020	22.620	27.140	159.900	44.340	38.220	44.480	71.380
16	21.540	17.130	18.320	63.830	32.700	19.700	21.040	173.900	52.330	35.060	54.070	59.170
17	21.610	16.870	18.180	55.480	22.970	18.260	37.860	102.600	57.810	32.170	49.960	80.260
18	21.090	16.990	18.050	46.830	20.360	17.480	65.930	76.720	112.900	30.050	39.080	107.900
19	21.090	15.940	17.640	40.470	22.090	16.750	38.120	104.500	169.700	27.750	34.770	74.360
20	20.360	15.000	16.910	34.980	19.760	16.210	57.800	82.100	87.010	25.830	32.570	189.900
21	39.680	16.450	16.110	31.890	17.520	15.710	37.050	86.760	409.800	24.150	31.080	726.200
22	82.610	17.370	18.000	29.560	16.400	20.790	56.610	77.550	318.100	22.740	28.820	289.300
23	46.220	36.750	39.320	26.170	16.390	37.470	45.000	67.680	151.300	21.360	28.520	212.600
24	33.550	32.630	43.120	23.900	26.610	47.260	45.960	136.400	107.000	20.570	30.280	153.600
25	30.390	23.180	41.490	22.060	46.110	26.410	28.460	141.300	79.190	19.570	29.520	125.700
26	28.390	21.080	31.080	21.050	43.820	20.120	112.600	95.180	75.780	19.050	27.420	98.770
27	23.850	19.680	24.340	20.230	41.780	18.240	128.900	103.700	63.750	18.470	24.360	72.780
28	39.000	18.330	20.990	20.060	53.860	18.410	74.590	176.300	52.470	17.850	21.600	57.660
29	98.990		49.850	20.870	32.780	17.810	91.100	90.390	45.130	17.420	20.750	48.120
30	96.110		166.400	26.000	26.330	15.810	57.450	73.420	40.510	17.110	23.620	43.190
31	127.500		89.490		22.750		41.450	65.920		17.060		89.480
Average	39.880	29.200	31.670	62.750	24.050	23.160	39.380	92.380	105.400	46.020	45.430	127.300
Lowest	20.360	15.000	16.110	20.060	13.760	15.230	12.000	33.470	40.510	17.060	16.600	43.190
Highest	127.500	93.850	166.400	171.900	53.860	76.290	128.900	179.500	409.800	131.000	200.600	726.200
Peak flow	165.000	101.200	207.100	249.500	69.330	103.200	218.500	282.200	631.400	161.500	286.500	870.000
Day of peak	31	1	30	11	28	12	27	15	21	4	8	21
Monthly total (million cu m)	106.80	70.63	84.82	162.60	64.41	60.02	105.50	247.40	273.30	123.30	117.80	340.90
Runoff (mm)	47	31	37	71	28	26	46	108	120	54	52	149
Rainfall (mm)	63	17	91	94	73	83	142	211	180	61	107	371

Statistics of monthly data for previous record (Oct 1967 to Dec 1984—incomplete or missing months total 3.0 years)

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Mean flows	Avg	87.990	61.890	55.170	38.050	28.440	22.590	19.570	19.850	35.130	65.630	76.810	70.160
	Low	42.850	37.540	24.360	13.070	11.050	10.420	8.375	7.026	9.218	7.965	30.420	32.480
	(year)	1973	1973	1975	1974	1974	1973	1984	1976	1972	1972	1973	1971
	High	151.200	100.000	119.700	63.960	68.940	50.380	36.990	54.790	87.320	225.000	126.400	139.200
	(year)	1975	1974	1968	1970	1983	1972	1968	1971	1968	1967	1984	1974
Runoff	Avg	103	66	65	43	33	26	23	23	40	77	87	82
	Low	50	40	29	15	13	12	10	8	10	9	34	38
	High	177	106	140	73	81	57	43	64	99	264	143	163
Rainfall (1968-1984)	Avg	132	73	96	57	68	77	75	89	110	116	139	116
	Low	74	28	43	8	25	37	38	19	26	31	54	43
	High	232	129	177	111	123	168	122	161	186	183	208	210

Summary statistics

	For 1985		For record preceding 1985		1985 As % of pre-1985
Mean flow (m^3s^{-1})	55.730		48.400		115
Lowest yearly mean			28.180	1973	
Highest yearly mean			60.790	1982	
Lowest monthly mean	23.160	Jun	7.026	Aug 1976	
Highest monthly mean	127.300	Dec	225.000	Oct 1967	
Lowest daily mean	12.000	7 Jul	5.468	7 Sep 1976	
Highest daily mean	726.200	21 Dec	772.900	23 Mar 1968	
Peak	870.000	21 Dec	1357.000	24 Mar 1968	
10 %ile	112.500		101.700		111
50 %ile	37.900		30.260		125
95 %ile	15.440		9.399		164
Annual total (million cu m)	1758.00		1528.00		115
Annual runoff (mm)	769		668		115
Annual rainfall (mm)	1493		1148		130
(1941-70 rainfall average (mm)			1240)		

Factors affecting flow regime

- Reservoir(s) in catchment.
- Abstraction for public water supplies.

Station description
Velocity-area station

079006 Nith at Drumlanrig 1985

Measuring authority: SRPB
First year: 1967
Grid reference: NX 858994
Level stn. (m OD) 52.20
Catchment area (sq km): 471.0
Max alt. (m OD): 725

Daily mean gauged discharges (cubic metres per second)

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	12 580	40 250	4 159	62 870	6 491	3 580	3 434	8 621	42 040	18 080	3 404	117 700
2	10 410	21 130	3 942	32 820	4 654	3 227	3 148	25 660	43 160	54 070	3 423	48 180
3	9 005	14 180	5 076	28 000	3 958	2 873	2 972	24 170	59 380	87 810	3 384	29 490
4	8 149	11 280	13 800	26 490	3 762	2 560	2 748	24 570	29 460	83 710	20 980	18 210
5	7 828	9 031	9 255	34 130	3 569	2 425	3 451	12 730	21 960	36 780	28 630	25 320
6	7 197	7 871	8 079	23 160	4 139	2 354	3 561	9 110	15 270	68 130	23 120	19 250
7	6 837	7 203	10 120	16 390	3 534	2 971	2 920	7 655	62 100	28 270	19 600	19 860
8	5 924	6 220	6 600	13 160	3 057	2 635	4 151	8 538	37 500	22 380	31 930	17 320
9	5 489	4 837	6 082	11 000	2 932	3 017	6 626	9 370	20 900	20 920	26 200	13 690
10	5 020	3 975	7 353	10 230	2 932	2 534	3 722	7 148	15 500	23 260	16 300	12 350
11	4 161	3 440	5 883	28 810	2 725	5 852	15 000	41 450	12 780	21 300	11 070	12 240
12	4 255	3 239	5 325	18 810	2 359	8 185	19 150	25 250	11 050	14 110	8 633	37 170
13	3 897	3 154	6 062	20 430	2 206	4 220	14 280	21 130	10 340	11 580	7 362	28 220
14	3 663	3 187	5 469	15 070	2 854	3 271	22 490	71 690	19 580	10 110	10 910	15 890
15	3 573	3 237	5 536	14 420	4 864	2 743	13 090	169 400	28 670	8 927	12 300	13 340
16	3 479	3 292	5 297	12 270	4 720	2 305	18 710	105 400	40 670	7 986	40 840	11 760
17	3 543	3 241	4 395	9 821	3 428	2 541	45 700	47 430	31 520	7 362	15 070	20 680
18	3 378	3 057	4 086	8 331	3 465	2 927	23 000	43 280	95 290	6 856	10 820	30 880
19	3 319	3 917	3 736	7 497	4 725	2 413	14 360	36 820	71 630	6 423	8 894	42 240
20	2 996	5 137	3 487	6 500	3 649	2 218	10 450	58 910	81 580	6 104	7 918	90 890
21	3 642	4 293	3 328	5 748	2 915	2 146	9 379	42 250	158 400	5 683	7 120	121 000
22	7 682	6 555	3 430	5 259	2 530	5 371	30 220	30 260	86 340	5 291	6 589	39 730
23	5 475	14 290	3 657	4 609	3 656	29 390	21 270	68 580	54 660	5 106	6 343	45 650
24	4 505	7 956	6 097	4 298	27 420	22 150	25 470	53 390	33 550	4 769	6 193	23 180
25	3 826	5 665	7 340	3 993	18 650	8 496	12 240	43 420	22 860	4 510	5 751	18 850
26	3 036	5 062	5 550	4 007	17 270	6 557	11 670	24 150	17 370	4 282	5 288	14 610
27	3 604	4 659	4 358	3 844	9 700	5 774	16 140	46 650	13 650	4 102	4 677	10 500
28	9 965	4 286	4 033	4 354	7 382	5 333	20 300	31 000	11 310	3 845	4 602	8 445
29	39 900		19 470	6 008	5 746	4 420	21 730	19 050	9 781	3 623	6 156	9 333
30	35 010		46 820	6 136	4 772	3 816	12 020	15 750	11 580	3 429	31 510	14 420
31	48 810		35 010		4 071		8 903	53 890		3 385		37 920
Average	9 037	7 630	8 479	14 950	5 746	5 277	13 620	38 280	39 000	19 100	13 170	31 240
Lowest	2 996	3 057	3 328	3 844	2 206	2 146	2 748	7 148	9 781	3 385	3 384	8 445
Highest	48 810	40 250	46 820	62 870	27 420	29 390	45 700	169 400	158 400	87 810	40 840	121 000
Peak flow	69 410	59 680	61 730	102 500	37 250	63 480	88 460	271 800	333 100	126 100	205 700	214 500
Day of peak	31	1	30	1	24	24	17	15	21	6	30	21
Monthly total (million cu m)	24 21	18.46	22 71	38 75	15 39	13 68	36 49	102.50	101 10	51 17	34 13	83 66
Runoff (mm)	51	39	48	82	33	29	77	218	215	109	72	178
Rainfall (mm)	67	27	101	99	76	93	165	302	247	108	129	189

Statistics of monthly data for previous record (Jun 1967 to Dec 1984)

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Mean flows	Avg	29 240	20 880	18 080	8 734	7.495	5 025	4 613	5 344	13 190	23 460	27 370	23 830
	Low	14 220	9 269	4 428	2 457	1 389	1 488	0 869	0 841	1 261	2 745	5 268	12 770
	(year)	1980	1979	1969	1974	1980	1984	1984	1984	1972	1972	1983	1971
	High	61 220	38 900	33 190	24 190	16 060	14 660	10 360	21 010	25 510	39 200	49 350	41 980
	(year)	1974	1984	1978	1972	1983	1972	1970	1980	1981	1967	1982	1974
Runoff	Avg	166	108	103	48	43	28	26	30	73	133	151	136
	Low	81	48	25	14	8	8	5	5	7	16	29	73
	High	348	207	189	133	91	81	59	119	140	223	272	239
Rainfall	Avg	186	113	125	67	95	85	88	87	154	183	179	154
	Low	87	32	34	11	19	52	41	23	20	66	35	69
	High	398	170	217	175	213	163	144	179	241	301	285	287

Summary statistics

	For 1985		For record preceding 1985		1985 As % of pre-1985
Mean flow (m^3s^{-1})	17 190		15 590		110
Lowest yearly mean			10 720	1971	
Highest yearly mean			21 700	1982	
Lowest monthly mean	5 277	Jun	0 841	Aug 1984	
Highest monthly mean	39 000	Sep	61 220	Jan 1974	
Lowest daily mean	2 146	21 Jun	0 606	26 Aug 1984	
Highest daily mean	169 400	15 Aug	231 700	19 Dec 1982	
Peak	333 100	21 Sep	538 400	17 Oct 1982	
10 %ile	41 480		40 340		103
50 %ile	8 585		7 796		110
95 %ile	2 892		1 284		225
Annual total (million cu m)	542 10		492 00		110
Annual runoff (mm)	1151		1045		110
Annual rainfall (mm)	1603		1516		106
(1941 70 rainfall average (mm)			1584)		

Factors affecting flow regime

- Reservoir(s) in catchment
- Abstraction for public water supplies

Station description
Velocity-area station

084005 Clyde at Blairston 1985

Measuring authority CRPB
First year 1958
Grid reference NS 704579
Level stn (m OD) 17.60
Catchment area (sq km) 1704.2
Max alt. (m OD) 732

Daily mean gauged discharges (cubic metres per second)

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	38 420	92 850	16 720	47 800	17 050	11 000	12 160	38 380	121 500	115 900	13 920	148 300
2	32 470	66 350	16 250	166 700	13 900	10 400	11 840	82 890	97 340	77 990	14 130	94 540
3	28 260	50 080	19 990	86 570	12 630	9 918	11 470	110 900	162 900	122 800	13 770	85 660
4	29 790	42 380	46 810	67 120	12 270	9 634	11 570	75 270	88 680	172 800	35 250	56 940
5	28 040	35 990	40 570	61 230	12 060	9 458	14 620	51 050	71 650	114 800	54 880	58 060
6	26 080	30 800	25 720	64 670	12 160	9 576	13 520	39 760	51 840	95 280	57 270	66 560
7	24 200	28 640	20 150	65 710	11 850	11 090	11 820	34 530	110 500	85 630	54 950	104 800
8	22 320	26 200	17 270	50 580	10 650	11 840	12 290	32 900	129 200	66 800	55 760	102 900
9	21 230	20 880	16 820	46 650	10 340	11 690	13 250	31 270	69 420	62 730	61 070	62 060
10	19 440	17 050	21 440	40 690	10 180	11 120	12 130	27 070	53 780	61 620	47 150	48 040
11	22 880	15 390	17 530	72 660	10 940	11 120	22 550	44 720	44 510	67 140	30 780	47 890
12	21 130	16 050	15 350	61 150	9 405	17 720	37 030	88 460	39 160	50 540	24 400	91 020
13	19 160	17 740	17 000	56 950	9 078	15 300	29 830	58 340	39 390	44 950	21 210	85 980
14	18 970	15 570	15 050	51 040	10 230	15 140	44 090	110 900	83 410	41 130	22 540	53 630
15	18 980	12 750	13 920	44 630	12 730	13 040	36 790	238 700	93 200	36 400	31 130	48 090
16	18 840	12 730	13 950	43 070	11 910	11 740	47 380	205 400	106 800	32 440	60 840	46 310
17	19 160	13 310	13 060	34 210	10 410	10 990	85 860	115 100	89 160	29 870	42 130	69 510
18	18 890	13 090	12 160	29 380	11 580	12 420	74 770	87 450	136 700	27 850	29 140	87 150
19	17 070	15 460	11 600	27 550	12 490	12 900	43 340	82 400	218 300	24 310	24 130	102 900
20	14 830	16 420	11 180	23 770	12 180	11 390	38 250	134 900	164 200	21 560	22 200	206 700
21	15 310	14 870	10 770	31 390	10 990	11 270	35 990	120 000	585 900	20 340	21 610	285 000
22	18 350	19 020	11 010	27 180	10 490	11 730	132 600	84 260	529 900	19 080	20 640	130 700
23	13 410	65 470	12 090	20 950	11 250	35 030	79 890	79 980	253 400	18 130	20 030	120 700
24	13 410	41 490	22 680	17 490	17 740	56 510	82 380	106 500	143 800	17 290	29 380	88 010
25	15 390	25 800	43 170	16 290	29 900	26 420	52 120	111 400	103 600	15 980	21 810	83 950
26	10 580	21 010	35 630	15 650	27 090	18 190	65 150	72 740	84 990	15 990	17 070	78 000
27	12 170	18 720	24 760	15 540	19 420	15 840	198 100	112 200	71 370	15 790	15 640	55 230
28	26 770	17 450	19 220	16 000	15 620	18 420	104 900	94 930	61 730	14 940	14 090	45 070
29	104 100		20 560	18 270	13 240	15 370	111 500	65 920	54 570	14 500	11 380	36 720
30	86 390		114 600	18 510	12 260	13 380	73 400	58 400	110 300	14 160	57 730	40 990
31	113 900		197 400		11 470		47 320	78 550		14 050		46 150
Average	28 710	27 980	28 850	47 980	13 340	15 320	50 580	86 140	132 400	49 430	31 530	86 370
Lowest	10 580	12 730	10 770	15 540	9 078	9 458	11 470	27 070	39 160	14 050	11 380	36 720
Highest	113 900	92 850	197 400	166 700	29 900	56 510	198 100	238 700	585 900	172 800	61 070	285 000
Peak flow	130 600	105 400	266 900	215 400	34 840	75 030	245 100	274 400	671 200	227 300	145 600	350 600
Day of peak	31	1	31	2	25	24	27	16	22	5	30	21
Monthly total (million cu m)	76 89	67 70	77 28	124 40	35 73	39 71	135 50	230 70	343 10	132 40	81 74	231 30
Runoff (mm)	45	40	45	73	21	23	79	135	201	78	48	136
Rainfall (mm)	47	27	92	73	47	75	166	206	230	60	84	145

Statistics of monthly data for previous record (Oct 1958 to Dec 1984)

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Mean flows	Avg	64 820	51 160	44 820	28 800	23 420	17 040	14 410	21 760	34 050	51 260	66 110	62 810
	Low	11 920	8 855	14 810	10 430	8 832	8 127	6 700	6 185	7 627	8 246	16 460	26 080
	(year)	1963	1963	1969	1974	1980	1967	1984	1984	1972	1972	1983	1963
	High	134 300	101 100	88 940	58 700	51 980	41 190	29 700	57 520	74 550	114 600	131 000	115 100
	(year)	1975	1984	1979	1972	1967	1972	1965	1962	1962	1967	1982	1974
Runoff	Avg	102	73	70	44	37	26	23	34	52	81	101	99
	Low	19	13	23	16	14	12	11	10	12	13	25	41
	High	211	149	140	89	82	63	47	90	113	180	199	181
Rainfall	Avg	114	74	88	63	73	73	77	92	116	123	129	113
	Low	25	23	28	9	18	43	32	24	16	33	24	38
	High	237	127	163	125	127	157	125	201	196	231	221	209

Summary statistics

	For 1985		For record preceding 1985		1985 As % of pre-1985
Mean flow (m^3s^{-1})	49 990		39 990		125
Lowest yearly mean			27 090	1973	
Highest yearly mean			54 070	1982	
Lowest monthly mean	13 340	May	6 185	Aug 1984	
Highest monthly mean	132 400	Sep	134 300	Jan 1975	
Lowest daily mean	9 078	13 May	4 502	11 Oct 1959	
Highest daily mean	585 900	21 Sep	568 800	31 Oct 1977	
Peak	671 200	22 Sep	662 400	31 Oct 1977	
10 %ile	110 000		92 980		118
50 %ile	29 100		23 010		126
95 %ile	11 040		8 025		138
Annual total (million cu m)	1576 00		1262 00		125
Annual runoff (mm)	925		741		125
Annual rainfall (mm)	1252		1135		110
[1941-70 rainfall average (mm)			1151]		

Factors affecting flow regime

● Natural to within 10% at 95 percentile flow

Station description
Velocity-area station

085003 Falloch at Glen Falloch 1985

Measuring authority CRPB
First year 1970
Grid reference: NN 321197
Level stn. (m OD) 9 50
Catchment area (sq km): 80 3
Max alt (m OD) 1130

Daily mean gauged discharges (cubic metres per second)

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	1 349	18 410	0 899	22 200	2 213	0 486	0 939	12 360	2 762	11 160	0.388	19 770
2	0.963	7 069	0 866	9 451	1 118	0 383	0 810	17 050	6.934	19 500	0 351	16 130
3	0.920	5 642	1.744	6 424	0 810	0 304	0 853	7 463	2 379	18 870	0 619	51 620
4	0 847	3 501	2 428	8 354	0 694	0 255	0 853	5 541	1 502	29 610	31 480	14 530
5	0 709	1 786	1 502	7 939	0 605	0 250	10 290	1 596	1.398	31 340	4 096	11 240
6	0 672	1 333	9 133	6 883	0 620	0 251	1 912	1 189	1 262	16.780	19 780	3 468
7	0.606	1 060	2 755	2 475	0 504	0 274	1 775	1 858	1.747	9 225	3 529	2 350
8	0 546	0 760	2 481	1 970	0 412	0 327	2 386	8 699	1 394	4 868	11 820	1.726
9	0 486	0 623	12 460	2 248	0 416	0 450	1 462	6 385	3 954	4 455	9 330	1 729
10	0 458	0 547	3 533	3 949	0 350	0 333	10 700	4 545	2 161	12 280	1 721	1 291
11	0 316	0 420	1 529	2 962	0 305	0 892	18 770	10 420	1 319	4 029	1 175	13 260
12	0 345	0.366	3 246	4 590	0 268	0 653	13 120	4 065	3 380	1 840	0 890	27 970
13	0 356	0 411	1 881	7 333	0 226	0 995	2 231	5.765	14 110	1 377	0 855	4 352
14	0 319	0 314	1 421	2 601	0 235	0 735	1 250	32 740	20 370	1 219	2 022	14 000
15	0 290	0 272	1 345	8 330	1 672	0 507	4 351	26 210	7 772	1 066	2 649	8 543
16	0 316	0 302	1 080	9 871	1 255	0 361	3 489	8 760	13 100	0 902	5 981	20 270
17	0 393	0 329	0 931	2 627	0 984	0 822	19 080	2 386	3 748	0 805	1 465	15 220
18	0 452	0 681	0 842	2 088	1 083	0 740	21 150	8 154	13 360	0 694	1 281	5 740
19	0 373	5 812	0 653	4 769	0 962	0 450	8 212	6 007	6 872	0 637	0 978	22 240
20	0 350	1 512	0 624	1 789	0 537	0 357	12 050	21 850	22 840	0 588	0 790	70 110
21	0 698	1 760	0 531	1 194	0 407	0 975	4 221	9 215	12 990	0 555	0 671	18 380
22	0 643	18 910	0 552	0 975	0 383	1 937	6 979	4 510	11 180	0 499	0 656	3 703
23	0 401	18 820	0 577	0 799	4 574	3 598	11 300	27 850	8 647	0 472	0 601	13 410
24	0 388	4 623	0 609	0 714	6 347	2 361	7 251	9 665	3 765	0 429	0 570	4 893
25	0 236	1 725	0 660	0 638	12 950	2 639	17 750	5 062	5 590	0 402	0 468	2 158
26	0 263	1 351	0 681	1 193	9 825	3 145	14 170	5 720	3 722	0 375	0 421	0 975
27	0 339	1 199	0 537	0 776	3 711	2 326	14 080	46 260	2 504	0 356	0 338	0 763
28	0 536	1 097	0 523	1 184	2 195	3 636	4 623	3 559	1 583	0 341	0 444	0 496
29	6 774		0 560	2 732	1 266	1 665	3 127	3 687	1 293	0 339	0 333	0 365
30	25 370		2 484	3 280	0 883	1 108	1 420	7 609	28 240	0 364	10 920	1 254
31	13 000		32 510		0 634		1 110	9 675		0 351		2 651
Average	1 926	3 594	2 954	4 411	1 885	1 107	7 152	10 510	7 063	5 669	3 887	12 070
Lowest	0 236	0 272	0 523	0 638	0 226	0 250	0 810	1 189	1 262	0 339	0 333	0 365
Highest	25 370	18 910	32 510	22 200	12 950	3 636	21 150	46 260	28 240	31 340	31 480	70 110
Peak flow	83 250	60 420	109 000	48 170	37 400	8 517	174 700	184 700*	91 450	143 500	97 570	172 000
Day of peak	31	23	31	1	25	23	26	27	30	6	4	3
Monthly total (million cu m)	5 16	8 69	7 91	11 43	5 05	2 87	19 16	28 15	18 31	15 18	10 08	32 32
Runoff (mm)	64	108	99	142	63	36	239	351	228	189	125	403
Rainfall (mm)	93	127	140	178	109	102	321	507	331	150	189	467

Statistics of monthly data for previous record (Oct 1970 to Dec 1984 -- incomplete or missing months total 0.3 years)

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Mean flows	Avg	9 210	5 380	5 835	2 826	2 599	2 531	2 198	2 828	6 734	7 341	9 180	7 806
	Low	3 698	1 840	0 854	0 408	0 133	0 328	0 634	0 339	0 751	1 362	3 326	1416
	(year)	1980	1975	1975	1974	1980	1977	1984	1983	1972	1974	1983	1981
	High	19 630	8 387	11 360	6 325	6 422	5 609	3 495	5 289	11 210	16 050	13 830	15 650
	(year)	1974	1982	1979	1977	1976	1973	1980	1982	1981	1983	1978	1974
Runoff	Avg	307	164	195	91	87	82	73	94	217	245	296	260
	Low	123	55	28	13	4	11	21	11	24	45	107	47
	High	655	253	379	204	214	181	117	176	362	535	446	522
Rainfall	Avg	375	203	239	119	133	149	152	160	309	321	378	332
	Low	172	79	100	15	19	67	66	42	40	100	117	111
	High	715	310	388	261	288	249	329	308	468	645	557	637

Summary statistics

	For 1985		For record preceding 1985		1985 As % of pre-1985
Mean flow (m^3s^{-1})	5 210		5 373		97
Lowest yearly mean			4 440	1972	
Highest yearly mean			6 474	1982	
Lowest monthly mean	1 107	Jun	0 133	May 1980	
Highest monthly mean	12 070	Dec	19 630	Jan 1974	
Lowest daily mean	0 226	13 May	0 032	12 Jul 1977	
Highest daily mean	70 110	20 Dec	113 400	2 Mar 1979	
Peak	184 700	27 Aug	226 700	22 Oct 1971	
10 %ile	14 290		15 000		95
50 %ile	1 696		2 069		82
95 %ile	0 323		0 191		170
Annual total (million cu m)	164 30		169 60		97
Annual runoff (mm)	2046		2112		97
Annual rainfall (mm)	2714		2870		95
(1941-70 rainfall average (mm)			2732)		

Factors affecting flow regime

- Natural to within 10% at 95 percentile flow

Station description
Velocity-area station. Artificial low flow control from 1975.

201005 Camowen at Camowen Terrace 1985

Measuring authority: DOEN
First year: 1972

Grid reference: IH 460730
Level stn. (m OD): 66.00

Catchment area (sq km): 274.6
Max alt. (m OD): 539

Daily mean gauged discharges (cubic metres per second)

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	5 235	11 200	2 590	11 040	2 663	1 554	2 287	3 965	9 859	7 111	2 028	15 250
2	4 371	7 574	2 755	7 631	2 380	1 411	1 940	8 660	21 450	13 830	2 244	8 921
3	3 969	6 564	12 820	9 801	2 211	1 252	1 777	14 140	12 240	12 850	2 088	7 007
4	3 569	5 750	9 787	10 390	2 162	1 184	1 650	6 996	7 988	11 030	2 790	5 696
5	3 505	4 801	5 781	9 375	2 125	1 189	2 659	6 000	6 707	8 977	7 562	5 244
6	3 073	4 577	5 160	7 499	2 105	1 169	2 243	4 856	6 520	16 200	6 130	8 225
7	2 910	9 057	4 635	6 717	2 032	1 111	2 010	4 497	36 070	7 988	6 514	8 334
8	3 017	15 990	3 642	5 561	1 922	1 250	3 878	10 110	12 470	10 170	20 570	6 702
9	3 018	8 467	3 206	5 077	1 955	1 394	3 524	6 393	8 154	9 425	8 875	5 023
10	3 027	5 752	3 284	5 807	1 791	1 396	2 553	5 521	6 513	7 556	6 811	9 238
11	2 822	5 566	2 845	9 292	1 522	1 890	3 707	6 485	5 677	6 065	5 528	5 987
12	2 471	4 096	2 797	8 625	1 539	2 490	6 166	5 623	6 477	5 320	4 878	8 575
13	2 531	3 562	2 954	14 900	1 513	1 850	4 290	9 348	6 021	4 939	4 539	12 100
14	2 426	2 801	4 353	8 678	1 628	1 461	2 929	56 030	7 449	4 521	6 590	7 315
15	2 150	4 108	6 049	6 539	4 780	1 315	3 174	38 410	7 272	4 198	8 978	6 173
16	2 256	3 141	6 110	5 895	3 672	1 274	4 096	11 790	7 457	4 000	12 040	5 712
17	1 847	2 843	4 859	5 278	2 284	1 461	4 730	8 260	6 712	3 772	6 323	12 290
18	2 348	2 664	4 297	4 515	1 911	1 607	3 474	9 745	36 200	3 513	5 369	9 572
19	2 084	5 618	6 582	3 898	1 779	2 679	3 307	10 080	17 680	3 369	4 488	16 070
20	3 295	4 472	5 413	3 879	1 629	9 242	6 566	14 950	44 110	3 142	3 845	31 390
21	11 690	4 382	5 852	3 370	1 484	15 410	4 533	10 680	39 230	2 945	3 581	24 230
22	6 814	4 090	5 303	2 987	1 314	11 300	5 513	7 478	12 870	2 795	3 320	9 453
23	4 322	4 300	5 086	2 656	1 600	10 530	3 736	11 200	9 925	2 717	3 087	7 498
24	4 066	3 601	4 174	2 505	2 442	4 996	5 907	11 770	7 829	2 539	2 965	7 048
25	3 468	3 210	3 932	2 262	10 830	3 489	8 518	8 772	8 332	2 404	2 903	7 517
26	2 644	2 910	3 430	2 177	5 754	3 691	35 270	6 593	7 548	2 442	2 682	5 522
27	22 750	2 773	3 026	2 170	3 883	3 365	7 212	13 020	6 656	2 343	2 825	4 537
28	39 990	2 645	2 849	3 362	3 240	2 968	5 543	8 424	5 514	2 199	2 678	3 907
29	27 530		8 681	3 844	3 065	2 432	7 514	8 076	4 960	2 180	2 565	3 455
30	17 730		11 300	3 097	2 256	2 282	4 421	7 465	5 998	2 150	16 470	8 008
31	16 440		8 145		1 813		3 460	15 430		2 107		7 656
Average	7 010	5 233	5 216	5 961	2 622	3 288	5 114	11 320	12 730	5 639	5 709	9 134
Lowest	1 847	2 645	2 590	2 170	1 314	1 111	1 650	3 965	4 960	2 107	2 028	3 455
Highest	39 990	15 990	12 820	14 900	10 830	15 410	35 270	56 030	44 110	16 200	20 570	31 390
Peak flow	59 150	25 970	25 350	20 890	19 650	34 820	73 000	75 050	101 000	38 440	48 910	62 070
Day of peak	28	8	4	13	25	21	26	14	21	6	8	21
Monthly total (million cu m)	18 78	12 66	13 97	15 45	7 02	8 52	13.70	30 31	32 99	15 10	14 80	24 46
Runoff (mm)	68	46	51	56	26	31	50	110	120	55	54	89
Rainfall (mm)	81	35	90	88	75	99	131	188	160	56	76	105

Statistics of monthly data for previous record (May 1972 to Dec 1984)

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Mean flows	Avg	12 740	9 203	7 550	3 634	3 382	2 293	1 837	2 303	4 532	6 674	9 112	11 540
	Low	8 859	3 320	2 504	1 377	0 751	1 053	0 879	0 846	0 873	1 197	3 421	5 295
	(year)	1979	1979	1973	1982	1980	1974	1984	1983	1972	1972	1983	1975
	High	18 070	20 480	13 200	6 779	7 954	5 051	4 698	5 551	9 655	12 990	17 540	22 470
	(year)	1978	1977	1978	1977	1972	1972	1972	1979	1978	1976	1979	1978
Runoff	Avg	124	82	74	34	33	22	18	22	43	65	86	113
	Low	86	29	24	13	7	10	9	8	8	12	32	52
	High	176	180	129	64	78	48	46	54	91	127	166	219
Rainfall	Avg	131	84	102	52	75	67	67	78	109	108	115	124
	Low	83	34	38	20	20	28	20	20	13	55	45	39
	High	194	161	145	100	144	118	102	147	177	171	182	179

Summary statistics

	For 1985		For record preceding 1985		1985 As % of pre-1985
Mean flow (m^3s^{-1})	6 588		6 226		106
Lowest yearly mean			4 319	1975	
Highest yearly mean			8 710	1978	
Lowest monthly mean	2 622	May	0 751	May 1980	
Highest monthly mean	12 730	Sep	22 470	Dec 1978	
Lowest daily mean	1 111	7 Jun	0.411	23 Aug 1984	
Highest daily mean	56 030	14 Aug	123 300	19 Dec 1973	
Peak	101 000	21 Sep			
10 %ile	12 030		13 820		87
50 %ile	4 718		3 497		135
95 %ile	1 553		0 870		179
Annual total (million cu m)	207 80		196 50		106
Annual runoff (mm)	757		716		106
Annual rainfall (mm)	1184		1112		106
[1941-70 rainfall average (mm)			920]		

Factors affecting flow regime

- Abstraction for public water supplies
- Augmentation from effluent returns

Station description
Velocity-area station with cableway, weir control

203010 Blackwater at Maydown Bridge 1985

Measuring authority: DOEN
First year: 1970

Grid reference: IH 820519
Level stn. (m OD): 15.00

Catchment area (sq km): 951.4
Max alt. (m OD): 362

Daily mean gauged discharges (cubic metres per second)

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	18.640	52.450	6.592	34.010	5.721	4.401	3.201	15.700	35.970	21.090	3.972	38.940
2	15.220	40.070	6.722	34.080	5.158	3.832	2.860	17.640	30.660	29.280	3.792	36.910
3	12.290	29.250	13.110	26.180	4.600	3.178	2.461	22.830	34.650	36.090	3.709	28.860
4	10.580	21.870	35.970	29.650	4.116	2.846	2.321	21.700	26.940	36.680	3.855	19.200
5	9.729	17.090	24.710	26.700	3.881	2.609	2.512	29.220	20.640	33.240	5.405	14.890
6	8.833	14.210	15.760	20.210	4.265	2.472	3.075	21.600	16.240	46.290	7.725	18.390
7	7.979	25.780	14.330	16.210	4.965	2.409	2.877	16.270	19.600	40.250	7.817	27.800
8	7.602	29.710	11.400	14.160	4.510	2.351	2.344	19.860	24.270	34.030	19.240	18.780
9	7.560	35.230	9.648	12.520	3.792	2.454	2.855	31.090	17.960	36.280	28.890	14.290
10	7.494	25.620	8.933	15.530	3.668	2.558	2.883	21.980	14.260	29.610	15.720	19.950
11	6.980	17.260	8.434	23.500	3.505	2.551	3.098	24.340	12.090	25.950	11.530	20.420
12	6.273	13.620	7.172	26.940	3.160	2.908	7.602	21.100	12.470	20.220	9.435	19.320
13	5.558	11.330	7.003	41.980	3.021	3.267	7.105	21.230	13.950	16.640	8.201	36.210
14	5.194	10.150	7.157	35.280	3.650	2.814	4.808	55.850	13.720	14.710	8.768	31.820
15	5.055	8.939	8.070	22.730	10.170	2.477	3.590	74.950	16.870	13.070	10.220	25.490
16	4.840	7.824	8.850	19.030	17.990	2.046	4.821	69.160	16.880	11.720	27.020	19.880
17	4.752	7.306	8.719	15.730	10.130	2.245	6.230	55.520	19.510	10.750	21.600	31.220
18	4.536	7.015	7.227	12.920	6.783	2.579	5.609	38.960	27.510	9.871	14.470	37.100
19	4.735	10.280	8.786	10.640	5.339	2.963	4.365	32.540	57.700	9.223	11.240	36.540
20	5.386	14.940	11.250	9.326	4.695	2.798	3.767	44.990	60.300	8.571	9.685	55.310
21	35.100	11.760	11.590	8.373	4.927	10.820	4.014	43.910	79.590	7.978	8.447	77.290
22	42.890	10.750	13.610	7.107	4.380	17.380	3.480	37.890	74.500	7.086	7.478	68.450
23	27.480	11.600	11.750	6.817	3.818	20.220	3.967	33.330	62.870	6.771	6.935	54.780
24	18.180	10.750	10.900	6.101	8.062	13.130	3.668	40.480	46.920	6.346	6.502	38.880
25	20.170	8.849	9.048	5.809	16.730	7.848	10.400	33.740	37.470	5.828	6.215	34.200
26	17.080	8.265	7.667	5.294	28.800	6.402	89.590	24.660	32.530	5.517	6.267	26.200
27	30.630	7.584	6.872	5.093	16.090	5.557	64.260	23.260	25.430	5.218	6.115	18.520
28	75.510	7.187	6.131	4.962	10.820	4.633	43.330	31.570	19.690	5.024	5.848	14.410
29	79.450		7.698	5.881	9.020	3.770	39.850	24.230	16.710	4.626	5.361	11.850
30	69.990		22.270	5.924	7.040	3.233	31.260	26.090	15.350	4.370	8.552	12.190
31	59.860		24.600		5.470		21.330	31.320		4.267		29.370
Average	20.500	17.020	11.680	16.960	7.364	4.958	12.690	32.480	30.110	17.630	10.000	30.240
Lowest	4.536	7.015	6.131	4.962	3.021	2.046	2.321	15.700	12.090	4.267	3.709	11.850
Highest	79.450	52.450	35.970	41.980	28.800	20.220	89.590	74.950	79.590	46.290	28.890	77.290
Peak flow	81.260	57.300	37.750	45.790	32.350	21.360	107.900	78.100	84.810	49.590	33.980	85.800
Day of peak	29	1	4	13	26	23	26	15	21	7	9	21
Monthly total (million cu m)	54.91	41.19	31.27	43.95	19.72	12.85	34.00	87.01	78.04	47.23	25.92	81.00
Runoff (mm)	58	43	33	46	21	14	36	91	82	50	27	85
Rainfall (mm)	74	29	66	72	68	75	110	160	105	43	64	103

Statistics of monthly data for previous record (Oct 1970 to Dec 1984)

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Mean flows	Avg.	34.270	27.010	21.750	10.670	8.159	5.570	3.040	4.918	8.758	16.780	27.710	30.500
	Low	17.470	13.030	8.362	3.399	1.368	1.031	0.860	0.686	1.945	2.003	8.857	10.270
	(year)	1971	1979	1973	1974	1984	1975	1984	1975	1972	1972	1983	1971
	High	56.720	52.550	42.850	29.050	19.810	17.480	7.328	12.880	28.200	31.960	52.220	50.660
	(year)	1984	1977	1981	1972	1983	1981	1972	1979	1974	1976	1970	1978
Runoff	Avg	96	69	61	29	23	15	9	14	24	47	75	86
	Low	49	33	24	9	4	3	2	2	5	6	24	29
	High	160	134	121	79	56	48	21	36	77	90	142	143
Rainfall	Avg	112	80	83	48	62	58	61	67	92	92	103	96
	Low	64	28	33	14	19	19	17	15	9	49	38	30
	High	185	158	142	84	124	111	115	124	153	168	146	164

Summary statistics

	For 1985		For record preceding 1985		1985 As % of pre-1985
Mean flow (m^3s^{-1})	17.670		16.550		107
Lowest yearly mean			9.954	1975	
Highest yearly mean			19.740	1982	
Lowest monthly mean	4.958	Jun	0.686	Aug 1975	
Highest monthly mean	32.480	Aug	56.720	Jan 1984	
Lowest daily mean	2.046	16 Jun	0.173	5 Sep 1976	
Highest daily mean	89.590	26 Jul	101.000	5 Jan 1982	
Peak	107.900	26 Jul	103.500	29 Apr 1981	
10 %ile	37.330		44.420		84
50 %ile	11.630		9.133		127
95 %ile	2.838		0.897		317
Annual total (million cu m)	557.20		522.30		107
Annual runoff (mm)	586		549		107
Annual rainfall (mm)	969		954		102
[1941-70 rainfall average (mm)			1005]		

Factors affecting flow regime

- Natural to within 10% at 95 percentile flow

Station description
Velocity-area station

039001 Thames at Kingston/Teddington 1985

Measuring authority TWA
First year 1883

Grid reference TQ 177698
Level stn (m OD) 4 73

Catchment area (sq km) 9948 0
Max alt (m OD) 330

Daily mean naturalised discharges (cubic metres per second)

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	143 000	172 000	109 000	137 000	66 000	56 200	72 100	49 500	41 600	32 600	31 500	32 700
2	121 000	147 000	130 000	133 000	62 000	56 700	59 500	44 700	43 700	3* 600	34 200	63 100
3	109 000	129 000	137 000	114 000	54 100	57 600	57 800	45 200	48 400	33 700	30 600	6* 000
4	100 000	119 000	145 000	86 300	57 800	62 100	60 500	66 300	53 700	34 700	31 600	86 300
5	96 100	120 000	129 000	101 000	56 800	87 700	63 100	95 200	44 700	34 700	33 700	*16 000
6	98 600	113 000	108 000	88 200	56 600	*28 000	58 400	67 800	45 300	35 300	32 600	169 000
7	93 400	124 000	93 100	106 000	57 700	*86 000	56 800	72 100	40 000	44 200	3* 110	183 000
8	82 700	204 000	103 000	144 000	57 200	195 000	51 000	47 900	38 400	63 700	32 100	173 000
9	84 500	263 000	97 400	130 000	52 600	173 000	46 300	59 400	37 900	56 300	44 800	136 000
10	78 900	249 000	90 300	107 000	48 700	144 000	45 800	71 600	34 200	35 300	56 300	108 000
11	84 200	210 000	91 300	124 000	53 700	127 000	44 700	67 300	39 400	45 200	48 900	81 000
12	77 600	160 000	86 700	*44 000	52 100	115 000	44 200	54 200	37 900	42 100	39 000	81 000
13	79 600	139 000	86 100	*10 000	57 800	89 400	45 300	51 600	37 400	40 000	31 000	91 600
14	75 500	131 000	85 800	*07 000	87 500	99 100	47 400	55 800	31 600	36 800	35 700	82 600
15	65 400	114 000	85 600	76 900	144 000	73 900	46 800	66 300	34 700	36 300	40 000	72 *00
16	74 900	106 000	81 600	90 800	119 000	70 100	47 900	47 900	34 200	36 300	39 500	71 000
17	72 100	78 700	82 700	73 400	75 200	65 400	46 800	53 600	33 700	36 800	47 900	64 200
18	68 400	98 *00	76 100	80 200	64 900	63 500	44 200	44 800	32 600	35 800	49 500	65 800
*9	68 500	87 800	75 900	76 200	65 400	61 300	47 300	50 500	33 700	35 800	43 600	6* 600
20	78 100	84 400	75 200	77 000	57 000	65 500	50 000	51 500	33 700	35 300	41 600	62 100
21	133 000	90 200	76 800	79 200	124 000	82 100	48 400	52 100	31 600	33 200	40 500	60 500
22	262 000	105 000	77 500	76 600	146 000	87 100	52 100	55 800	34 200	34 700	40 500	64 200
23	228 000	131 000	94 400	72 300	116 000	95 100	47 900	54 700	35 800	33 700	35 200	88 400
24	*84 000	133 000	*08 000	64 600	59 300	105 000	41 500	64 200	34 200	33 700	33 700	138 000
25	191 000	134 000	98 600	66 800	85 900	129 000	41 *00	69 000	33 700	32 600	37 600	204 000
26	257 000	113 000	121 000	63 900	62 700	129 000	40 600	51 500	33 700	31 500	31 500	319 000
27	223 000	109 000	147 000	66 600	97 900	116 000	35 700	52 100	33 600	33 200	33 200	408 000
28	223 000	105 000	126 000	57 200	116 000	103 000	41 600	46 400	32 000	33 200	33 200	329 000
29	210 000		96 800	68 900	100 000	76 400	6* 000	37 400	30 000	34 200	34 200	278 000
30	197 000		92 800	68 300	64 100	81 400	60 500	37 800	27 400	32 600	32 600	252 000
31	181 000		100 000		63 500		54 700	39 500		32 700		205 000
Average	130 300	134 600	100 200	93 010	76 790	99 190	50 350	55 600	36 770	37 030	37 400	*35 700
Lowest	65 400	78 700	75 200	57 200	48 700	56 200	35 700	37 400	27 400	31 500	30 600	32 700
Highest	262 000	263 000	147 000	144 000	146 000	*95 000	72 100	95 200	53 700	63 700	56 300	408 000
Monthly total (million cu m)	349 10	325 70	268 50	241 *0	205 70	257 10	134 90	148 90	95 30	99 *7	96 93	363 50
Naturised runoff (mm)	35	33	27	24	21	26	*4	15	10	10	10	37
Rainfall (mm)	56	36	*50	40	72	*08		81	18	34	47	111

Statistics of monthly data for previous record (Jan 1883 to Dec 1984)

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Mean	Avg	139 300	136 600	118 100	86 710	65 730	48 350	34 510	32 010	34 140	49 *70	84 *80	*14 000
naturised	Low	32 200	25 080	27 340	24 *90	18 200	13 470	10 770	9 954	11 250	*5 120	17 *30	22 470
flows	(year)	1905	1905	1944	1976	1944	1944	192*	1976	1898	1934	*921	1921
	High	332 900	348 100	370 900	206 700	181 300	178 700	92 110	88 770	144 300	185 300	339 600	343 900
	(year)	1915	1904	1947	1951	1932	*903	1968	1931	*-*968	1903	1894	1929
Naturised runoff	Avg	38	33	32	23	18	13	9	9	9	13	22	31
	Low	9	6	7	6	5	4	3	3	3	4	5	6
	High	90	88	100	54	49	47	25	24	38	50	88	93
Rainfall	Avg	65	49	53	48	55	52	58	64	59	72	73	72
	Low	18	3	3	*3	8	3	8	3	3	5	8	13
	High	*37	127	142	104	137	137	130	147	157	188	188	185

Summary statistics
(natural sed flows)

	For 1985		For record preceding 1985		1985 As % of pre-1985
Mean flow (m³s⁻¹)	82 000		78 350		105
Lowest yearly mean			30 940	1934	
Highest yearly mean			135 200	1951	
Lowest monthly mean	36 770	Sep	9 954	Aug 1976	
Highest monthly mean	135 700	Dec	370 900	Mar 1947	
Lowest daily mean	27 400	30 Sep	7 370	9 Jul 1934	
Highest daily mean	408 000	27 Dec	1065 000	18 Nov 1894	
10 %ile	143 300		174 700		82
50 %ile	65 720		53 240		123
95 %ile	32 450		18 130		179
Annual total (million cu m)	2586 00		2473 00		105
Annual runoff (mm)	260		249		105
Annual rainfall (mm)	705		720		98
(1941-70 rainfall average (mm)			723)		

Factors affecting flow regime

- Reservoir(s) in catchment.
- Flow influenced by groundwater abstraction and/or recharge
- Abstraction for public water supplies.
- Flow reduced by industrial and/or agricultural abstractions
- Augmentation from surface water and/or groundwater
- Augmentation from effluent returns.

Station description
Ultrasonic gauging station installed at Kingston in 1975. Earlier data derived from the Teddington gauging station - a low flow gauging weir with adjustable crest 21 3 m broad, two roller sluices each 10 7 m broad, 35 vertically lifting gates total breadth, 68 2 m, and 34 radial gates each 3 07 m broad. Naturalised flows are determined by taking account of abstractions for public water supply

Part (ii) – the monthly flow data

The introductory information (measuring authority etc.) is as described in Part (i).

Hydrometric statistics for the year

The monthly average, peak flow, runoff and rainfall figures are equivalent to the summary information following the daily mean gauged discharges in Part (i). Because of the rounding of monthly runoff values the runoff for the year may differ slightly from the sum of the individual monthly totals.

Monthly and yearly statistics for previous record

Monthly mean flows (Average, Low and High) and the monthly rainfall and runoff figures are equivalent to those presented in Part (i). Again, due to the rounding of monthly runoff values, the average runoff for the year derived from the previous record may differ slightly from the sum of the individual monthly totals. The peak flow is the highest discharge, in cubic metres per second, for each month. For many stations the archived series of monthly instantaneous maximum flows, from which the preceding record peak is abstracted, is incomplete, particularly for the earlier years, and certain of the peak flows are known to be of limited accuracy. An examination of the quality of the peak flow figures is underway and significant revision may be expected as this review proceeds. The figures are published primarily to provide a guide to the range of river flows experienced throughout the year at the featured gauging stations.

Factors affecting flow regime

Code letters are used as described in Part (i)

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 lower or higher 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 (simple Crump weir modified with angled, sloping, triangular profile flanking crests) in trapezoidal channel
FL	Flume
FV	Flat V triangular profile weir
MIS	Miscellaneous method
TP	Rectangular thin-plate weir
US	Ultrasonic gauging station
VA	Velocity-area gauging station
VN	Triangular (V notch) thin-plate weir

004001 Conon at Moy Bridge 1985

Measuring authority: HRPB
First year: 1953
Grid reference: NH 482547
Level stn (m OD): 10 03
Catchment area (sq km): 961 8
Max alt (m OD): 1052

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	46.520	60.450	44.500	41.180	37.360	19.470	13.060	30.010	65.670	63.360	51.110	94.880	47.298
(m^3s^{-1})	Peak	239.90	179.90	151.30	98.70	73.17	49.12	30.44	117.90	109.90	115.50	164.30	219.30	239.90
Runoff (mm)		130	152	124	111	104	52	36	84	177	176	138	264	1548
Rainfall (mm)		119	60	126	157	69	85	133	221	206	91	179	257	1703

Monthly and yearly statistics for previous record (Oct 1947 to Dec 1984—incomplete or missing months total 5.7 years)

Mean	Avg	66.460	57.730	55.110	40.730	31.350	21.370	20.440	26.530	39.560	53.440	63.290	71.270	45.564
flows	Low	31.690	25.810	18.670	13.940	10.940	8.861	2.959	8.162	12.510	23.090	24.090	27.970	29.991
(m^3s^{-1})	High	138.300	121.000	127.900	75.730	53.050	47.560	36.700	45.140	94.870	94.030	121.700	165.100	59.238
Peak flow (m^3s^{-1})		694.00	467.20	362.90	203.90	232.20	165.20	247.40	254.90	223.70	324.80	411.80	1076.00	1076.00
Runoff (mm)		185	147	153	110	87	58	57	74	107	149	171	198	1495
Rainfall (mm)*		192	128	144	104	104	99	102	119	162	208	215	231	1808

*(1953-1984)

Factors affecting flow regime: H
Station type: VA

1985 runoff is 104% of previous mean
rainfall 94%

007002 Findhorn at Forres 1985

Measuring authority: HRPB
First year: 1958
Grid reference: NJ 018583
Level stn. (m OD): 9 60
Catchment area (sq km): 781 9
Max alt. (m OD): 941

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	13.740	24.580	15.070	28.990	15.740	15.030	14.720	21.830	28.730	13.120	25.980	34.850	21.032
(m^3s^{-1})	Peak	123.00	120.60	74.90	121.90	76.09	87.87	96.43	227.70	321.70	120.50	197.50	229.20	321.70
Runoff (mm)		47	76	52	96	54	50	50	75	95	45	86	119	845
Rainfall (mm)		80	26	82	97	89	114	122	169	133	50	149	120	1231

Monthly and yearly statistics for previous record (Oct 1958 to Dec 1984)

Mean	Avg	24.750	19.820	22.590	21.000	15.480	9.695	9.470	13.300	15.210	21.410	23.800	24.910	18.454
flows	Low	9.429	5.259	8.615	5.560	3.836	3.321	2.744	2.478	2.863	3.547	9.300	8.332	11.994
(m^3s^{-1})	High	51.190	44.700	54.320	54.170	41.990	41.900	24.650	58.840	37.870	49.540	39.710	61.550	25.482
Peak flow (m^3s^{-1})		361.10	537.70	410.00	173.50	294.30	430.20	469.10	2410.00	861.10	512.00	465.20	616.90	2410.00
Runoff (mm)		85	62	77	70	53	37	32	46	50	73	79	85	745
Rainfall (mm)		103	64	82	63	72	76	84	101	103	113	118	106	1085

Factors affecting flow regime: N
Station type: VA

1985 runoff is 114% of previous mean
rainfall 113%

008007 Spey at Invertruim 1985

Measuring authority: NERPB
First year: 1952
Grid reference: NN 687962
Level stn (m OD): 242.50
Catchment area (sq km): 400 4
Max alt. (m OD): 951

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	3.483	4.800	3.005	3.780	2.967	2.325	3.522	4.796	6.502	5.249	4.737	11.300	4.706
(m^3s^{-1})	Peak	27.18	42.74	8.69	7.19	15.79	4.06	28.11	31.00	26.88	34.43	35.06	93.62	93.62
Runoff (mm)		23	29	20	24	20	15	24	32	42	35	31	76	371
Rainfall (mm)		83	49	75	105	73	66	147	202	175	86	136	222	1419

Monthly and yearly statistics for previous record (Oct 1952 to Dec 1984)

Mean	Avg	8.967	6.562	6.436	4.237	3.685	3.014	2.855	3.348	4.785	6.959	7.825	9.608	5.692
flows	Low	3.314	1.953	2.722	2.075	1.413	1.123	1.042	0.852	1.454	1.638	3.235	3.518	4.211
(m^3s^{-1})	High	23.280	21.020	20.600	7.126	6.210	6.269	5.021	7.545	14.650	14.830	15.960	24.970	8.037
Peak flow (m^3s^{-1})		153.70	198.20	274.50	60.85	43.92	45.93	72.83	75.00	108.00	106.90	170.60	259.50	274.50
Runoff (mm)		60	40	43	27	25	20	19	22	31	47	51	64	449
Rainfall (mm)		157	102	115	73	88	78	84	99	136	169	165	175	1441

Factors affecting flow regime: H
Station type: VA

1985 runoff is 83% of previous mean
rainfall 98%

009002 Deveron at Muiresk 1985

Measuring authority: NERPB
First year: 1960
Grid reference: NJ 705498
Level stn (m OD): 25 30
Catchment area (sq km): 954.9
Max alt. (m OD): 775

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	27.490	19.360	16.760	24.800	17.960	20.570	17.980	27.100	26.380	9.899	31.630	36.650	23.048
(m^3s^{-1})	Peak	83.70	61.19	64.94	70.12	59.45	117.10	83.24	84.53	100.00	15.47	184.50	215.20	215.20
Runoff (mm)		77	49	47	67	50	56	50	76	72	28	86	103	781
Rainfall (mm)		98	14	90	89	85	123	118	150	101	24	161	110	1163

Monthly and yearly statistics for previous record (Oct 1960 to Dec 1984)

Mean	Avg	25.760	20.670	20.270	17.110	13.730	8.235	7.608	10.540	10.430	17.840	22.330	24.100	16.544
flows	Low	5.726	5.376	6.735	7.456	5.373	3.935	2.738	2.578	2.907	2.706	6.322	5.184	8.889
(m^3s^{-1})	High	45.260	38.800	37.190	37.990	46.250	21.770	18.950	36.380	36.550	49.480	56.410	46.390	22.788
Peak flow (m^3s^{-1})		214.50	135.20	187.10	131.30	506.60	254.40	222.50	422.90	322.60	332.10	305.60	244.20	506.60
Runoff (mm)		72	53	57	46	39	22	21	30	28	50	61	68	547
Rainfall (mm)		85	56	69	61	68	60	73	87	83	95	98	87	922

Factors affecting flow regime: N
Station type: VA

1985 runoff is 139% of previous mean
rainfall 126%

010002 Ugie at Inverugie — 1985

Measuring authority: NERPB
First year: 1971

Grid reference: NK 101485
Level stn. (m OD) 8.50

Catchment area (sq km): 325.0
Max alt. (m OD): 234

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	10.120	4.939	4.527	7.484	6.197	3.860	4.487	6.405	7.092	3.114	9.474	9.575	6.438
(m^3s^{-1})	Peak	34.99	12.65	11.60	22.53	31.64	11.81	14.84	20.75	22.14	4.77	31.21	95.52	95.52
Runoff (mm)		83	37	37	60	51	31	37	53	57	26	78	79	625
Rainfall (mm)		98	18	71	94	92	82	114	122	94	8	137	87	1017

Monthly and yearly statistics for previous record (Feb 1971 to Dec 1984)

Mean	Avg	8.221	6.609	5.301	3.641	2.910	2.007	1.620	1.672	2.013	4.136	6.849	8.427	4.443
flows	Low	2.285	1.999	1.593	1.245	1.542	0.913	0.903	0.764	0.791	0.869	1.942	1.473	3.003
(m^3s^{-1})	High	13.270	14.320	9.291	6.516	5.691	4.372	4.274	3.797	3.938	8.075	18.350	13.280	6.122
Peak flow (m^3s^{-1})		61.04	83.56	67.86	30.50	27.50	12.70	23.79	17.91	38.80	87.72	106.10	86.25	106.10
Runoff (mm)		68	50	44	29	24	16	13	14	16	34	55	69	432
Rainfall (mm)		84	46	66	46	48	52	53	56	87	87	96	83	804

Factors affecting flow regime: N
Station type: VA

1985 runoff is 145% of previous mean
rainfall 126%

011001 Don at Parkhill — 1985

Measuring authority: NERPB
First year: 1969

Grid reference: NJ 887141
Level stn. (m OD) 32.44

Catchment area (sq km): 1273.0
Max alt. (m OD): 872

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	34.940	29.570	20.740	34.600	20.870	29.040	29.270	34.030	38.380	18.460	28.960	46.270	30.428
(m^3s^{-1})	Peak	75.45	71.46	55.54	65.00	37.03	101.60	81.74	61.88	102.90	29.54	81.91	148.40	148.40
Runoff (mm)		74	58	44	70	44	59	62	72	78	39	59	97	753
Rainfall (mm)		103	15	87	80	84	134	126	141	110	19	146	80	1125

Monthly and yearly statistics for previous record (Dec 1969 to Dec 1984)

Mean	Avg	31.520	29.890	28.470	24.780	17.240	11.700	9.925	11.300	10.650	21.130	24.480	29.910	20.881
flows	Low	9.453	6.846	6.587	9.317	9.553	6.773	4.335	3.346	4.194	3.831	6.542	7.951	10.622
(m^3s^{-1})	High	49.160	52.550	49.590	47.220	35.460	24.770	21.350	42.320	18.160	60.580	86.420	57.440	28.651
Peak flow (m^3s^{-1})		185.90	165.10	159.80	132.30	110.70	57.00	119.30	251.20	121.20	347.20	215.90	198.30	347.20
Runoff (mm)		66	58	60	50	36	24	21	24	22	44	50	63	518
Rainfall (mm)		101	59	74	60	64	55	66	68	80	89	91	84	891

Factors affecting flow regime: N
Station type: VA

1985 runoff is 145% of previous mean
rainfall 126%

013007 North Esk at Logie Mill — 1985

Measuring authority: TRPB
First year: 1976

Grid reference: NO 699640
Level stn. (m OD) 10.60

Catchment area (sq km): 730.0
Max alt. (m OD): 939

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	19.790	20.940	16.450	28.540	13.630	24.300	18.060	35.810	30.540	17.130	16.300	38.050	23.295
(m^3s^{-1})	Peak	64.18	71.68	43.35	111.40	102.20	271.90	133.00	199.20	196.00	76.34	416.90	398.10	416.90
Runoff (mm)		73	69	60	101	50	86	66	131	108	63	58	140	1006
Rainfall (mm)		116	16	83	87	99	131	120	183	133	38	135	122	1263

Monthly and yearly statistics for previous record (Jan 1976 to Dec 1984)

Mean	Avg	24.700	28.260	32.620	22.330	15.450	7.749	5.329	7.876	10.350	30.500	29.490	32.780	20.596
flows	Low	13.770	9.795	19.230	9.071	8.179	3.684	2.993	2.548	4.748	5.691	5.281	20.790	15.314
(m^3s^{-1})	High	48.600	45.670	42.750	34.750	32.840	14.410	9.362	24.250	21.660	80.410	91.170	59.880	24.927
Peak flow (m^3s^{-1})		240.80	88.31	169.10	102.20	180.80	43.88	12.89	7.74	28.86	97.64	462.10	187.70	462.10
Runoff (mm)		91	95	120	79	57	28	20	29	37	112	105	120	891
Rainfall (mm)		119	90	121	51	76	59	68	69	119	151	118	136	1177

Factors affecting flow regime: NS P I
Station type: CC

1985 runoff is 113% of previous mean
rainfall 107%

013008 South Esk at Brechin — 1985

Measuring authority: TRPB
First year: 1983

Grid reference: NO 600596
Level stn. (m OD) 18.00

Catchment area (sq km): 490.0
Max alt. (m OD): 958

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	10.160	13.700	9.358	16.400	7.554	10.910	8.910	25.140	21.290	12.840	8.224	23.240	13.977
(m^3s^{-1})	Peak	29.93	39.24	20.46	56.51	40.07	86.79	32.82	127.90	89.54	41.64	165.40	181.10	181.10
Runoff (mm)		56	68	51	87	41	58	49	137	113	70	44	127	899
Rainfall (mm)		111	29	74	87	86	124	114	221	132	51	115	139	1283

Monthly and yearly statistics for previous record (Jan 1983 to Dec 1984)

Mean	Avg	19.370	15.390	21.080	16.100	15.430	7.718	2.517	1.752	3.699	9.237	26.030	18.430	13.042
flows	Low	16.430	9.230	16.420	11.510	6.529	3.577	1.712	1.403	3.597	8.922	3.911	17.730	11.397
(m^3s^{-1})	High	22.320	21.550	25.730	20.690	24.340	11.860	3.322	2.100	3.800	9.552	48.150	19.130	14.702
Peak flow (m^3s^{-1})		67.60	72.40	98.91	44.39	59.07	38.20	5.24	2.96	24.35	40.94	172.00	82.82	172.00
Runoff (mm)		106	78	115	85	84	41	14	10	20	50	138	101	841
Rainfall (mm)		167	79	131	49	82	63	38	23	123	121	171	140	1187

Factors affecting flow regime: N I
Station type: VA

1985 runoff is 107% of previous mean
rainfall 108%

014001 Eden at Kemback — 1985

Measuring authority TRPB
First year 1967

Grid reference NO 415158
Level stn (m OD) 6 20

Catchment area (sq km) 307 4
Max alt (m OD) 522

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	5 584	4 237	3 653	7 243	2 483	1 931	3 391	6 038	11 260	5 760	3 056	12 390	**5.586**
(m^3s^{-1})	Peak	24 61	11 89	16 19	18 42	5 93	2 79	26 20	17 19	53 64	23 17	28 63	47 82	**53 64**
Runoff (mm)		49	33	32	61	22	16	30	53	95	50	26	108	**574**
Rainfall (mm)		66	14	81	75	62	63	129	140	171	23	65	137	**1026**

Monthly and yearly statistics for previous record (Oct 1967 to Dec 1984)

Mean	Avg	6 757	6 550	5 011	3 340	3 065	2 180	1 383	1 438	1 570	3 006	4 930	5 583	**3 721**
flows	Low	2 546	2 170	1 408	1 199	1 406	1 077	0 914	0 799	0 749	0 833	0 830	1 731	**1.446**
(m^3s^{-1})	High	10.890	19 460	8 096	6 480	8 335	6 651	2 026	2 983	3 165	6 880	14 440	10 730	**5.176**
Peak flow (m^3s^{-1})		59 05	71 31	54 89	28 27	47 48	41 93	8 00	15 53	29 73	35 97	39 37	43 22	**71.31**
Runoff (mm)		59	52	44	28	27	18	12	13	13	26	42	49	**382**
Rainfall (mm)		84	57	63	40	67	52	54	53	74	77	79	72	**772**

Factors affecting flow regime NS GEI
Station type VA

1985 runoff is 150% of previous mean
rainfall 133%

015011 Lyon at Comrie Bridge — 1985

Measuring authority TRPB
First year 1972

Grid reference NN 786486
Level stn (m OD) 92 10

Catchment area (sq km) 391 1
Max alt (m OD) 1215

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	7 762	9 60	6 300	1 970	7 057	5 490	10 060	19 970	15 210	14 290	10 030	25 790	**11.961**
(m^3s^{-1})	Peak	67 08	45 31	52 46	47 23	37 45	21 90	84 85	128 70	81 40	120 60	78 91	166 10	**166 10**
Runoff (mm)		53	59	43	79	48	36	69	137	101	98	66	177	**967**
Rainfall (mm)		89	52	90	135	89	78	194	288	207	135	153	328	**1838**

Monthly and yearly statistics for previous record (Jan 1958 to Dec 1984)

Mean	Avg	17 450	13 590	13 700	10 060	9 53	6 641	5 974	6 986	10 410	14 970	14 860	15 150	**11.606**
flows	Low	3 596	3 198	4 219	4 002	3 537	3 514	3 062	2 221	2 868	3 662	5 320	6 182	**8.330**
(m^3s^{-1})	High	43 920	28 580	37 440	17 100	16 560	18 870	20 800	28 940	28 120	29 930	30 550	32 780	**19 870**
Peak flow (m^3s^{-1})		271 20	149 10	254 70	62 02	104 40	56 93	70 46	59 07	131 40	160 90	270 40	198 00	**271 20**
Runoff (mm)		119	85	94	67	65	44	41	48	69	103	98	104	**937**
Rainfall (mm)*		271	132	187	79	104	94	92	101	193	215	254	227	**1949**

*(1971-1984)

Factors affecting flow regime H
Station type VA

1985 runoff is 103% of previous mean
rainfall 94%

016003 Ruchill Water at Cultybraggan — 1985

Measuring authority TRPB
First year 1970

Grid reference NN 764204
Level stn (m OD) 62 29

Catchment area (sq km) 99 5
Max alt (m OD) 985

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	2 263	3 732	2 948	5 156	2 138	1 278	4 812	9 246	9 016	5 535	3 318	12 350	**5 149**
(m^3s^{-1})	Peak	51 95	22 64	55 40	42 06	37 15	17 64	60 05	143 00	130 60	73 59	84 54	132 10	**143.00**
Runoff (mm)		61	91	79	134	58	33	130	249	235	149	86	332	**1637**
Rainfall (mm)		84	63	103	153	103	83	214	343	303	146	159	319	**2073**

Monthly and yearly statistics for previous record (Oct 1970 to Dec 1984—incomplete or missing months total 0.2 years)

Mean	Avg	8 009	6 109	6 273	2 781	2 621	1 891	1 456	1 791	4 749	6 171	7 964	7 365	**4.760**
flows	Low	3 442	2 389	1 802	0 758	0 304	0 402	0 239	0 164	0 345	0 789	2 306	1 630	**3.281**
(m^3s^{-1})	High	15 240	9 995	11 100	5 040	7 075	4 562	2 800	4 512	10 260	12 130	16 550	11 660	**6.586**
Peak flow (m^3s^{-1})		250 40	130 20	165 30	61 27	165 00	221 30	160 00	85 89	227 30	136 60	183 30	160 70	**250 40**
Runoff (mm)		216	150	169	72	71	49	39	48	124	166	207	198	**1510**
Rainfall (mm)		240	158	170	80	116	97	105	113	205	208	247	224	**1963**

Factors affecting flow regime N
Station type VA

1985 runoff is 108% of previous mean
rainfall 106%

016004 Earn at Forteviot Bridge — 1985

Measuring authority TRPB
First year 1972

Grid reference NO 043184
Level stn (m OD) 7 84

Catchment area (sq km) 782 2
Max alt (m OD) 985

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	19 630	24 560	16 560	33 790	9 981	6 013	18 360	46.660	55 680	47 820	19 180	70 090	**30.694**
(m^3s^{-1})	Peak	122 20	78 53	95 16	106 00	47 09	24 31	142 30	169 70	233 30	241 20	116 40	219.90	**241 20**
Runoff (mm)		67	76	57	112	34	20	63	160	185	164	64	240	**1240**
Rainfall (mm)		72	45	82	107	75	72	165	250	232	92	124	248	**1564**

Monthly and yearly statistics for previous record (Oct 1972 to Dec 1984)

Mean	Avg	46 910	37 970	36 660	18 410	13 800	9 651	6 441	7 279	18 610	29 810	44 000	42 850	**25.979**
flows	Low	25 000	16 070	12 310	8 389	4 906	4 095	2.658	2 456	5 302	5 984	15 120	15 060	**15.508**
(m^3s^{-1})	High	85 510	58 640	58 620	28 960	33 520	20 070	11 050	16 530	36 700	59 340	89 750	64 550	**34 597**
Peak flow (m^3s^{-1})		277 50	214 60	194 10	104 50	155 20	114 90	65 62	95 24	271 80	235 90	328 60	219 80	**328.60**
Runoff (mm)		161	119	126	61	47	32	22	25	62	102	146	147	**1048**
Rainfall (mm)		169	105	137	49	81	69	74	84	162	149	176	159	**1414**

Factors affecting flow regime P H
Station type VA

1985 runoff is 118% of previous mean
rainfall 111%

017002 Leven at Leven 1985

Measuring authority: FRPB
First year: 1970
Grid reference: NO 369006
Level stn. (m OD) 4.05
Catchment area (sq km): 424.0
Max alt. (m OD) 522

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	8.465	6.829	4.244	9.713	2.930	3.165	5.300	11.840	21.040	13.170	6.134	18.560	9.283
(m^3s^{-1})	Peak	27.24	16.11	20.62	22.94	5.95	6.15	28.83	25.69	84.25	40.67	26.72	48.25	84.25
Runoff (mm)		53	39	27	59	19	19	33	75	129	83	38	117	691
Rainfall (mm)		67	25	78	80	61	77	154	157	216	31	79	161	1186

Monthly and yearly statistics for previous record (Aug 1969 to Dec 1984)

Mean	Avg	10.640	9.982	7.122	4.237	3.197	2.682	1.487	2.350	2.737	5.440	8.765	10.160	5.713
flows	Low	4.781	2.882	1.543	1.413	2.012	1.166	0.902	0.820	0.970	0.795	0.972	3.462	2.289
(m^3s^{-1})	High	20.700	22.660	11.240	8.835	6.612	6.527	2.123	4.841	5.616	11.000	26.510	19.200	8.689
Peak flow (m^3s^{-1})		51.59	128.00	39.19	26.41	13.67	26.93	5.34	24.71	25.39	40.00	56.76	62.69	128.00
Runoff (mm)		67	58	45	26	20	16	9	15	17	34	54	64	425
Rainfall (mm)		93	61	74	43	62	61	56	64	88	88	103	89	882

Factors affecting flow regime: SR EI
Station type: VA
1985 runoff is 163% of previous mean
rainfall 134%

017005 Avon at Polmonthill 1985

Measuring authority: FRPB
First year: 1972
Grid reference: NS 952797
Level stn. (m OD) 4.27
Catchment area (sq km): 195.3
Max alt. (m OD): 312

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	3.228	2.826	3.475	3.911	1.354	0.904	6.129	6.729	15.140	3.835	3.307	9.420	5.022
(m^3s^{-1})	Peak	33.62	12.89	62.54	33.59	5.35	1.50	81.67	53.61	111.40	44.63	61.58	55.61	111.40
Runoff (mm)		44	35	48	52	19	12	84	92	201	53	44	129	812
Rainfall (mm)		53	25	82	54	55	58	188	173	227	32	89	157	1188

Monthly and yearly statistics for previous record (Oct 1971 to Dec 1984)

Mean	Avg	6.672	4.733	4.511	2.304	1.560	1.316	0.746	0.957	2.383	4.328	6.342	5.879	3.472
flows	Low	3.566	2.347	1.665	0.962	0.739	0.649	0.569	0.541	0.619	0.670	1.370	2.300	2.060
(m^3s^{-1})	High	10.860	9.092	8.493	4.945	2.481	2.884	1.069	1.986	5.576	8.100	12.300	10.120	4.528
Peak flow (m^3s^{-1})		85.34	58.52	50.99	31.63	23.56	23.94	12.37	12.47	49.09	76.75	90.27	68.95	90.27
Runoff (mm)		92	59	62	31	21	17	10	13	32	59	84	81	561
Rainfall (mm)		108	62	86	45	58	60	55	69	102	105	119	105	974

Factors affecting flow regime: EI
Station type: VA
1985 runoff is 145% of previous mean
rainfall 122%

018003 Teith at Bridge of Teith 1985

Measuring authority: FRPB
First year: 1957
Grid reference: NN 725011
Level stn. (m OD) 14.70
Catchment area (sq km): 518.0
Max alt. (m OD): 1165

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	9.608	17.290	10.520	25.160	10.210	7.002	26.390	54.210	45.020	37.610	15.500	63.980	26.875
(m^3s^{-1})	Peak	52.09	58.76	43.62	80.84	44.49	10.72	118.30	174.40	182.80	145.00	102.60	228.50	228.50
Runoff (mm)		50	81	54	126	53	35	136	280	225	194	78	331	1844
Rainfall (mm)		83	72	100	151	97	84	256	367	318	135	179	325	2167

Monthly and yearly statistics for previous record (Jan 1957 to Dec 1984—incomplete or missing months total 0.1 years)

Mean	Avg	34.460	27.730	25.800	15.310	14.310	9.565	8.812	11.210	19.170	27.070	31.420	33.000	21.470
flows	Low	11.680	5.743	6.589	5.612	4.017	3.953	3.781	3.135	3.635	5.897	9.842	11.790	15.094
(m^3s^{-1})	High	72.430	54.340	60.190	30.040	33.160	21.520	15.900	28.420	37.940	66.410	59.330	62.450	27.795
Peak flow (m^3s^{-1})		303.90	207.40	176.00	89.21	158.00	161.70	74.22	88.35	184.10	242.60	245.10	241.10	303.90
Runoff (mm)		178	131	133	77	74	48	46	58	96	140	157	171	1308
Rainfall (mm)*		230	141	163	87	120	108	99	112	202	218	226	205	1911

*(1963-1984)

Factors affecting flow regime: S P
Station type: VA
1985 runoff is 126% of previous mean
rainfall 113%

018005 Allan Water at Bridge of Allan 1985

Measuring authority: FRPB
First year: 1972
Grid reference: NS 786980
Level stn. (m OD) 11.20
Catchment area (sq km): 210.0
Max alt. (m OD): 633

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	4.751	5.716	4.113	7.266	2.369	1.547	6.309	12.390	14.600	8.566	4.908	16.790	7.444
(m^3s^{-1})	Peak	59.03	24.36	54.05	52.05	15.68	2.80	66.37	67.48	105.60	111.00	79.89	84.71	111.00
Runoff (mm)		61	66	52	90	30	19	80	158	180	109	61	214	1121
Rainfall (mm)		62	34	80	100	69	58	184	223	249	64	112	185	1420

Monthly and yearly statistics for previous record (Jul 1971 to Dec 1984)

Mean	Avg	10.980	8.567	8.193	3.977	3.357	2.552	1.585	2.114	4.532	6.941	9.636	9.602	5.993
flows	Low	6.471	4.793	3.152	1.654	1.189	0.945	0.726	0.648	0.907	0.971	3.642	3.709	4.289
(m^3s^{-1})	High	18.550	16.610	13.310	6.618	7.435	5.423	2.320	5.921	9.218	12.420	17.760	14.060	7.451
Peak flow (m^3s^{-1})		98.20	67.84	70.98	32.65	72.11	55.39	44.65	55.83	84.13	79.68	97.89	112.60	112.60
Runoff (mm)		140	100	104	49	43	32	20	27	56	89	119	122	901
Rainfall (mm)		146	91	113	55	78	71	68	76	131	132	147	140	1248

Factors affecting flow regime: N I
Station type: VA
1985 runoff is 124% of previous mean
rainfall 114%

020001 Tyne at East Linton — 1985

Measuring authority: FRPB
First year: 1961
Grid reference: NT 591768
Level stn (m OD) 16.50
Catchment area (sq km): 307.0
Max alt. (m OD): 528

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	3 331	2 335	3.985	5 336	1 534	1.131	3 950	3 741	8 489	2 034	2.344	5 472	**3.640**
(m^3s^{-1})	Peak	19.97	7.10	30 56	23 25	2.82	2.78	58 25	40 23	90 84	3.63	6 87	36 49	**90.84**
Runoff (mm)		29	18	35	45	13	10	34	33	72	18	20	48	**374**
Rainfall (mm)		49	9	89	62	57	66	142	94	126	27	62	83	**866**

Monthly and yearly statistics for previous record (Jan 1961 to Dec 1984)

Mean	Avg	4 607	3 916	4 011	2 555	2.541	1.521	1 179	1 552	1 596	2.235	3.847	3 683	**2.766**
flows	Low	1 032	0 783	0.531	0 644	0 926	0.586	0 500	0 468	0 461	0 451	0 524	0 582	**0.709**
(m^3s^{-1})	High	11.540	8 624	8 789	6.158	11.600	6.142	4.393	9 855	6 711	7 000	11 210	8 405	**4.146**
Peak flow (m^3s^{-1})		93 02	39.39	66 17	33 39	119 70	59.12	70 18	112 70	73 34	82 71	127 50	52.02	**127.50**
Runoff (mm)		40	31	35	22	22	13	10	14	13	20	32	32	**284**
Rainfall (mm)		64	42	58	44	61	52	57	74	69	69	75	59	**724**

Factors affecting flow regime: EI
Station type: VA

1985 runoff is 132% of previous mean
rainfall 120%

021006 Tweed at Boleside — 1985

Measuring authority: TWRP
First year: 1961
Grid reference: NT 498334
Level stn (m OD) 94.50
Catchment area (sq km): 1500.0
Max alt. (m OD): 839

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	24.610	23 650	24 150	48 540	15 710	11.430	40 970	81 400	95 510	42.770	19.820	79.340	**42.325**
(m^3s^{-1}):	Peak	145.20	87 49	180 20	173 30	53 87	27 35	269 90	304 60	496.30	226.70	112 30	571 90	**571.90**
Runoff (mm)		44	38	43	84	28	20	73	145	165	76	34	142	**893**
Rainfall (mm)		62	19	112	88	67	77	188	218	196	68	84	166	**1345**

Monthly and yearly statistics for previous record (Oct 1961 to Dec 1984)

Mean	Avg	54 930	44 990	43 840	28 430	24 360	16 060	13 200	18 740	28 050	40 860	51.920	50 530	**34.820**
flows	Low	14.300	10 480	14 930	9 896	7.605	7 413	6 362	5.012	4 572	4.435	11.570	22 450	**18.578**
(m^3s^{-1})	High	110 700	81 860	101 000	57 330	64 330	32 820	31.960	44 750	63 090	96.720	119.800	86 540	**44.323**
Peak flow (m^3s^{-1})		678 60	483 90	470 10	248 90	182.80	126.00	342 60	444 30	385 10	1019.00	486 30	518 10	**1019 00**
Runoff (mm)		98	73	78	49	43	28	24	33	48	73	90	90	**728**
Rainfall (mm)		123	83	98	67	86	78	81	98	121	123	128	113	**1199**

Factors affecting flow regime: S P
Station type: VA

1985 runoff is 123% of previous mean
rainfall 112%

021012 Teviot at Hawick — 1985

Measuring authority: TWRP
First year: 1963
Grid reference: NT 522159
Level stn (m OD) 90 10
Catchment area (sq km) 323 0
Max alt (m OD): 608

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	7.587	5.962	6 519	13 030	4 281	2 674	11 020	19.120	18.960	7 918	5 053	23 280	**10.450**
(m^3s^{-1})	Peak	64 17	25.55	64.72	85 58	30 51	17.10	148 30	123 90	170 10	39.22	58 79	195 00	**195.00**
Runoff (mm)		63	45	54	105	36	21	91	159	152	66	41	193	**1024**
Rainfall (mm)		90	18	108	100	81	65	180	220	182	56	91	195	**1388**

Monthly and yearly statistics for previous record (Oct 1963 to Dec 1984)

Mean	Avg	13 460	10 690	9 706	5 571	5 500	4 042	2.766	3 692	5 833	10.100	12 980	12 730	**8.080**
flows	Low	6.981	4 234	2 991	2.189	1.296	1 099	0 751	0.734	0 915	0 816	2.555	4 522	**4.183**
(m^3s^{-1})	High	28 560	18 510	20 250	10.750	17 340	10 500	8.163	9 075	13 770	25.690	29.930	21 980	**10.959**
Peak flow (m^3s^{-1})		185 90	228 60	142 00	86 03	98 31	81.84	99 33	178 60	185 60	273 40	188 60	210 70	**273.40**
Runoff (mm)		112	81	80	45	46	32	23	31	47	84	104	106	**789**
Rainfall (mm)		115	77	99	61	88	80	78	91	109	118	127	115	**1158**

Factors affecting flow regime: N
Station type: VA

1985 runoff is 130% of previous mean
rainfall 120%

021018 Lyne Water at Lyne Station — 1985

Measuring authority: TWRP
First year: 1968
Grid reference: NT 209401
Level stn (m OD) 168.00
Catchment area (sq km) 175.0
Max alt (m OD): 562

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	2.302	2 197	2 234	4 086	1.331	0.950	3.884	5 363	10 440	3 386	2 411	5 850	**3.703**
(m^3s^{-1})	Peak	9 86	7 64	18.42	13.47	1 90	1.85	31.72	20 77	58.74	8.55	6 14	25.81	**58 74**
Runoff (mm)		35	30	34	61	20	14	59	82	155	52	36	90	**668**
Rainfall (mm)		39	24	86	76	44	64	165	160	193	50	65	128	**1094**

Monthly and yearly statistics for previous record (Oct 1968 to Dec 1984)

Mean	Avg	4.862	4 280	3 670	2 442	1 761	1 388	0 985	1 047	1 482	2 784	4 471	4.179	**2.772**
flows	Low	1.682	2.158	1 357	1.127	0 882	0 787	0 714	0 605	0 591	0.597	0.977	1 618	**1.428**
(m^3s^{-1})	High	8.774	8.698	7.325	5 028	4 104	2 653	1.624	2 448	3.139	5.684	8 611	8 374	**3.849**
Peak flow (m^3s^{-1})		47 50	41 55	27 65	21.46	17 36	16.46	11 90	11 63	18 68	40 49	53 60	37 98	**53.60**
Runoff (mm)		74	60	56	36	27	21	15	16	22	43	66	64	**500**
Rainfall (mm)		91	59	79	49	63	62	61	66	93	96	105	83	**907**

Factors affecting flow regime: S P
Station type: VA

1985 runoff is 134% of previous mean
rainfall 121%

021022 Whiteadder Water at Hutton Castle 1985

Measuring authority: TWRP
First year: 1969
Grid reference: NT 881550
Level stn. (m OD) 29.00
Catchment area (sq km): 503.0
Max alt. (m OD): 533

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	12 070	7.250	9.172	12 180	6 086	3 865	6 625	8.184	16 360	4 285	4 975	15 030	8.840
(m^3s^{-1}):	Peak	101.90	34.11	51.58	34.25	41.85	16.49	84 85	38.78	105 80	10 08	26 40	101.90	105.80
Runoff (mm)		64	35	49	63	32	20	35	44	84	23	28	80	555
Rainfall (mm)		87	13	105	67	74	67	130	104	129	21	74	91	982

Monthly and yearly statistics for previous record (Sep 1969 to Dec 1984)

Mean	Avg	11.050	11 010	9.814	6 415	5 434	3 426	1.919	2.230	2.251	4 928	7.871	8 458	6.212
flows	Low	2.143	1.557	1.108	1.325	2.113	1.403	1 315	1.162	0 990	1.001	1.100	1.347	1.828
(m^3s^{-1})	High	25 990	27.300	19.220	14 980	24 050	8.835	2 486	6 714	4 322	16 670	27 680	20 660	8.494
Peak flow (m^3s^{-1})		265.90	160.90	133.90	76 65	226.20	64 98	25.70	79 00	43.20	190 00	279.80	108.10	279.80
Runoff (mm)		59	54	52	33	29	18	10	12	12	26	41	45	390
Rainfall (mm)		81	54	75	46	65	58	52	60	69	73	78	71	782

Factors affecting flow regime: S P
Station type: CC

1985 runoff is 142% of previous mean rainfall 123%

022006 Blyth at Hartford Bridge 1985

Measuring authority: NWA
First year: 1966
Grid reference: NZ 243800
Level stn. (m OD) 24 60
Catchment area (sq km): 269.4
Max alt. (m OD): 259

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	5 801	1.441	2 741	4 494	1 699	0 632	0 540	1 258	2 152	0 420	2 393	3 997	2.297
(m^3s^{-1})	Peak	35 83	5.20	17.93	29 61	12 00	1.96	3 79	5.79	23.15	0.75	20.70	19 47	35 83
Runoff (mm)		58	13	27	43	17	6	5	13	21	4	23	40	270
Rainfall (mm)		79	11	78	56	68	50	95	90	82	8	72	66	755

Monthly and yearly statistics for previous record (Oct 1966 to Dec 1984—incomplete or missing months total 0.4 years)

Mean	Avg	4 570	3.921	3 845	1 844	1 453	0.666	0 361	0.494	0 645	1.691	2 505	3.702	2.136
flows	Low	0 587	0 398	0 245	0 359	0 212	0 177	0 096	0 067	0 107	0 111	0.162	0 274	0.537
(m^3s^{-1})	High	10 150	7 997	11 090	4 527	4.948	1 895	1 242	2 543	2 695	9 680	5 735	12 500	3.410
Peak flow (m^3s^{-1})		146 60	59 52	150 20	33 00	38 86	31 54	7.60	39 61	30 02	56 84	69.20	122.30	150.20
Runoff (mm)		45	36	38	18	14	6	4	5	6	17	24	37	250
Rainfall (mm)		66	46	64	41	57	54	52	63	66	62	67	65	703

Factors affecting flow regime: E
Station type: FV

1985 runoff is 108% of previous mean rainfall 107%

023001 Tyne at Bywell 1985

Measuring authority: NWA
First year: 1956
Grid reference: NZ 038617
Level stn. (m OD) 14 00
Catchment area (sq km): 2175.6
Max alt. (m OD) 893

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	46 530	33 010	45 690	56 320	19 530	18 310	45 140	77 360	106.600	29 260	39.160	107.100	52 001
(m^3s^{-1}):	Peak	361 80	156 50	389 20	297.10	92 52	140 00	494.40	362 80	1243 00	106 00	534.90	1204.00	1243.00
Runoff (mm)		57	37	56	67	24	22	56	95	127	36	47	132	756
Rainfall (mm)		82	18	101	71	68	76	129	175	140	34	99	144	1137

Monthly and yearly statistics for previous record (Oct 1956 to Dec 1984—incomplete or missing months total 0.2 years)

Mean	Avg	73 220	58 070	55 650	36 890	25 690	18 180	17 450	27 220	33.220	47 050	64 090	66 660	43.567
flows	Low	19 220	14 360	20 150	8.461	7 246	4.910	5.199	3 403	4.155	4 727	18 090	23 080	25.849
(m^3s^{-1})	High	150.800	98 140	150.900	75 620	60.650	50 010	46 230	58 070	99 450	147 200	147 000	112 000	63.834
Peak flow (m^3s^{-1})		1525 00	922 10	1472 00	852.30	476 30	440.30	758.90	1282 00	1189 00	1586 00	1382 00	1317 00	1586.00
Runoff (mm)		90	65	69	44	32	22	21	34	40	58	76	82	632
Rainfall (mm)		102	71	83	61	69	69	79	93	92	94	106	101	1020

Factors affecting flow regime: S
Station type: VA

1985 runoff is 120% of previous mean rainfall 111%

023007 Derwent at Rowlands Gill 1985

Measuring authority: NWA
First year: 1963
Grid reference: NZ 168581
Level stn. (m OD) 29.30
Catchment area (sq km): 242.1
Max alt. (m OD) 560

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	3 478	2.303	2 993	3.282	1.878	1 185	1 062	1 654	1 350	1 014	1.769	2.675	2.054
(m^3s^{-1}):	Peak	21 38	5.24	24.30	15.61	16 67	2.50	3 27	22 76	5 07	1 47	8 46	11 07	24.30
Runoff (mm)		38	23	33	35	21	13	12	18	14	11	19	30	267
Rainfall (mm)		78	11	91	57	64	45	78	107	73	17	80	75	778

Monthly and yearly statistics for previous record (Nov 1962 to Dec 1984—incomplete or missing months total 0.1 years)

Mean	Avg	3 641	3 855	4 796	3 135	2 415	1.673	1.349	1 577	1.711	2 083	3 167	3 207	2.712
flows	Low	1 148	0 911	0 749	1.149	0 973	0 844	0 796	0 656	0 626	0 791	0 903	0.882	1 119
(m^3s^{-1})	High	7 320	10 490	13.570	6 561	7 852	4 222	4 087	4 667	7 264	8 971	11 780	7 826	5.573
Peak flow (m^3s^{-1})		54 99	34.46	93 73	53.73	36.88	45.91	19.10	60 69	36 41	58 87	97 98	63 02	97.98
Runoff (mm)		40	39	53	34	27	18	15	17	18	23	34	35	354
Rainfall (mm)		81	61	76	58	65	63	58	79	75	68	89	77	850

Factors affecting flow regime: P
Station type: CC

1985 runoff is 76% of previous mean rainfall 91%

024004 Bedburn Beck at Bedburn 1985

Measuring authority: NWA
First year: 1959
Grid reference: NZ 118322
Level stn. (m OD): 109.00
Catchment area (sq km): 74.9
Max alt. (m OD): 531

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	1.526	1.036	1.252	1.618	1.011	0.400	0.386	1.102	0.946	0.474	0.931	1.955	1.053
(m^3s^{-1})	Peak	13.98	6.01	9.36	8.06	24.06	0.66	4.35	12.57	4.68	1.62	5.11	6.62	24.06
Runoff (mm)		55	33	45	56	36	14	14	39	33	17	32	70	444
Rainfall (mm)		80	10	86	60	78	42	80	121	66	33	86	87	829

Monthly and yearly statistics for previous record (Oct 1959 to Dec 1984—incomplete or missing months total 0.2 years)

Mean	Avg.	2.100	1.810	1.854	1.267	0.919	0.560	0.413	0.521	0.575	1.170	1.542	1.772	1.207
flows	Low	0.515	0.472	0.436	0.440	0.270	0.196	0.152	0.120	0.157	0.146	0.245	0.444	0.667
(m^3s^{-1})	High	4.341	4.011	5.128	2.750	2.231	1.524	1.056	1.465	1.790	4.346	3.722	4.488	1.633
Peak flow (m^3s^{-1})		34.67	39.16	38.51	35.09	20.62	21.66	21.92	22.99	32.30	38.06	34.26	42.93	42.93
Runoff (mm)		75	59	66	44	33	19	15	19	20	42	53	63	508
Rainfall (mm)		90	65	74	57	65	60	62	75	75	79	91	86	879

Factors affecting flow regime: N
Station type: CC

1985 runoff is 87% of previous mean
rainfall 94%

024009 Wear at Chester le Street 1985

Measuring authority: NWA
First year: 1977
Grid reference: NZ 283512
Level stn. (m OD): 5.50
Catchment area (sq km): 1008.3
Max alt. (m OD): 747

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	20.150	11.150	14.090	19.980	10.320	5.051	5.455	13.540	12.080	5.349	10.150	23.120	12.536
(m^3s^{-1})	Peak	126.50	57.48	84.29	107.70	122.00	8.98	41.19	132.00	95.47	14.63	56.63	151.00	151.00
Runoff (mm)		54	27	37	51	27	13	14	36	31	14	26	61	393
Rainfall (mm)		89	12	81	75	72	45	80	132	76	29	85	80	856

Monthly and yearly statistics for previous record (Sep 1977 to Dec 1984)

Mean	Avg	24.360	23.510	28.370	14.830	11.590	8.302	5.014	5.141	5.275	10.710	18.530	25.660	15.082
flows	Low	15.780	10.210	15.010	5.489	4.386	3.945	2.948	3.335	3.777	4.834	5.022	13.230	13.296
(m^3s^{-1})	High	40.980	37.620	64.200	30.120	30.170	14.650	9.731	9.201	7.484	26.170	35.820	50.640	19.785
Peak flow (m^3s^{-1})		309.80	248.20	349.60	176.70	119.80	200.60	82.95	59.19	92.94	273.40	215.20	353.10	353.10
Runoff (mm)		65	57	75	38	31	21	13	14	14	28	48	68	472
Rainfall (mm)		88	59	98	45	64	74	44	70	74	82	98	109	905

Factors affecting flow regime: G
Station type: FV

1985 runoff is 83% of previous mean
rainfall 95%

025006 Greta at Rutherford Bridge 1985

Measuring authority: NWA
First year: 1960
Grid reference: NZ 034122
Level stn. (m OD): 223.00
Catchment area (sq km): 86.1
Max alt. (m OD): 596

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	2.310	0.968	2.099	2.348	1.617	0.557	0.800	3.827	2.482	1.112	2.404	4.270	2.068
(m^3s^{-1})	Peak	34.51	9.06	21.66	19.77	47.41	14.16	31.45	65.90	32.33	11.25	27.23	48.99	65.90
Runoff (mm)		72	27	65	71	50	17	25	119	75	35	72	133	761
Rainfall (mm)		79	13	91	82	100	51	93	194	85	46	99	137	1070

Monthly and yearly statistics for previous record (Oct 1960 to Dec 1984)

Mean	Avg	3.775	2.761	3.245	2.081	1.344	0.893	0.633	1.205	1.532	2.535	3.412	3.524	2.244
flows	Low	0.291	0.280	0.842	0.375	0.148	0.130	0.092	0.098	0.147	0.195	0.951	0.944	1.447
(m^3s^{-1})	High	7.155	6.881	8.926	4.682	3.951	2.502	2.013	4.107	4.067	6.665	6.878	6.406	2.926
Peak flow (m^3s^{-1})		118.00	88.63	79.00	62.01	56.35	51.74	52.83	110.40	109.00	93.85	68.81	73.77	118.00
Runoff (mm)		117	78	101	63	42	27	20	37	46	79	103	110	823
Rainfall (mm)		120	84	99	74	77	73	69	93	99	103	117	117	1125

Factors affecting flow regime
Station type: CC

1985 runoff is 92% of previous mean
rainfall 95%

025018 Tees at Middleton in Teesdale 1985

Measuring authority: NWA
First year: 1971
Grid reference: NY 950250
Level stn. (m OD): 211.20
Catchment area (sq km): 242.1
Max alt. (m OD): 893

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	6.582	4.974	6.886	10.570	6.506	6.827	7.839	14.790	13.780	6.191	8.050	16.400	9.116
(m^3s^{-1})	Peak	112.40	40.29	76.07	55.66	194.00	40.37	89.34	115.30	133.00	52.28	140.50	135.10	194.00
Runoff (mm)		73	50	76	113	72	73	87	164	148	68	86	181	1191
Rainfall (mm)		138	40	126	133	116	90	156	245	179	70	143	212	1648

Monthly and yearly statistics for previous record (Jul 1971 to Dec 1984—incomplete or missing months total 0.5 years)

Mean	Avg	13.180	10.080	11.310	7.378	5.896	5.142	4.496	5.406	6.364	8.763	11.600	12.470	8.505
flows	Low	7.078	4.484	3.955	2.619	3.134	3.286	3.119	3.091	2.967	4.499	5.395	3.805	6.092
(m^3s^{-1})	High	19.420	16.530	23.880	17.810	10.700	10.420	5.918	10.440	9.590	15.020	19.480	24.100	10.632
Peak flow (m^3s^{-1})		258.80	186.10	255.10	100.30	112.10	123.20	85.72	185.90	184.40	180.40	181.50	179.60	258.80
Runoff (mm)		146	102	125	79	65	55	50	60	68	97	124	138	1109
Rainfall (mm)		184	104	141	80	91	96	81	104	136	144	181	172	1514

Factors affecting flow regime: SR
Station type: VA

1985 runoff is 107% of previous mean
rainfall 109%

025019 Leven at Easby 1985

Measuring authority: NWA
First year: 1971

Grid reference: NZ 585087
Level stn. (m OD) 101.30

Catchment area (sq km): 14.8
Max alt. (m OD): 335

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	0.440	0.188	0.193	0.335	0.179	0.120	0.092	0.124	0.085	0.087	0.196	0.237	0.190
(m^3s^{-1}):	Peak	2.78	0.52	1.20	3.41	0.71	0.45	0.31	1.39	0.27	0.83	0.66	0.78	3.41
Runoff (mm)		80	31	35	59	32	21	17	22	15	16	34	43	404
Rainfall (mm)		116	5	69	87	56	54	64	90	45	59	89	66	800

Monthly and yearly statistics for previous record (May 1971 to Dec 1984)

Mean	Avg	0.314	0.310	0.302	0.215	0.187	0.132	0.109	0.115	0.125	0.179	0.205	0.276	0.205
flows	Low	0.115	0.100	0.076	0.085	0.072	0.075	0.044	0.039	0.059	0.063	0.092	0.132	0.143
(m^3s^{-1})	High	0.630	0.729	0.821	0.402	0.545	0.239	0.189	0.365	0.532	0.556	0.508	0.543	0.305
Peak flow (m^3s^{-1})		3.14	4.38	4.90	4.34	7.56	1.99	3.14	3.88	12.83	3.08	4.01	7.66	12.83
Runoff (mm)		57	51	55	38	34	23	20	21	22	32	36	50	438
Rainfall (mm)		79	50	75	50	62	60	61	69	81	76	77	78	818

Factors affecting flow regime: N
Station type: FV

1985 runoff is 92% of previous mean
rainfall 98%

025020 Skerne at Preston le Skerne 1985

Measuring authority: NWA
First year: 1972

Grid reference: NZ 292238
Level stn. (m OD) 67.50

Catchment area (sq km): 147.0
Max alt. (m OD): 222

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	2.409	0.487	0.813	1.911	0.810	0.294	0.240	0.572	0.315	0.188	0.455	0.950	0.787
(m^3s^{-1}):	Peak	13.39	1.61	6.54	11.82	10.92	0.62	0.88	6.17	1.33	0.77	2.63	3.10	13.39
Runoff (mm)		44	8	15	34	15	5	4	10	6	3	8	17	169
Rainfall (mm)		82	6	61	69	75	39	57	105	48	21	64	46	673

Monthly and yearly statistics for previous record (Dec 1972 to Dec 1984—incomplete or missing months total 0.3 years)

Mean	Avg	1.541	1.331	1.444	0.800	0.727	0.483	0.359	0.347	0.330	0.871	0.858	1.495	0.882
flows	Low	0.486	0.481	0.293	0.247	0.199	0.112	0.121	0.086	0.082	0.099	0.204	0.553	0.558
(m^3s^{-1})	High	3.376	2.731	4.824	2.245	2.106	1.004	0.760	0.732	0.745	4.290	1.962	4.658	1.510
Peak flow (m^3s^{-1})		20.08	12.93	26.58	19.20	10.63	16.54	9.23	7.95	9.33	21.71	17.40	24.82	26.58
Runoff (mm)		28	22	26	14	13	9	7	6	6	16	15	27	189
Rainfall (mm)		59	38	57	39	53	55	44	56	66	58	58	62	645

Factors affecting flow regime: E
Station type: VA

1985 runoff is 90% of previous mean
rainfall 104%

026003 Foston Beck at Foston Mill 1985

Measuring authority: YWA
First year: 1959

Grid reference: TA 093548
Level stn. (m OD) 6.40

Catchment area (sq km): 57.2
Max alt. (m OD): 164

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	0.805	1.150	0.958	0.865	0.950	0.731	0.539	0.453	0.345	0.308	0.408	0.507	0.668
(m^3s^{-1}):	Peak	1.69	1.20	1.24	1.37	1.34	0.97	0.66	0.57	0.44	0.51	0.65	0.85	1.69
Runoff (mm)		38	49	45	39	45	33	25	21	16	14	18	24	367
Rainfall (mm)		91	5	64	66	68	53	76	79	37	25	105	81	750

Monthly and yearly statistics for previous record (Oct 1959 to Dec 1984—incomplete or missing months total 0.8 years)

Mean	Avg	0.898	1.180	1.103	0.980	0.826	0.651	0.516	0.404	0.337	0.327	0.435	0.619	0.687
flows	Low	0.199	0.183	0.174	0.150	0.174	0.110	0.112	0.105	0.101	0.125	0.148	0.195	0.155
(m^3s^{-1})	High	2.224	2.332	2.242	2.070	1.708	1.231	0.882	0.675	0.567	0.612	1.845	2.379	1.282
Peak flow (m^3s^{-1})		2.89	3.31	2.69	2.70	1.92	2.01	1.47	0.99	0.80	1.22	2.49	2.86	3.31
Runoff (mm)		42	50	52	44	39	30	24	19	15	15	20	29	379
Rainfall (mm)		72	51	56	50	54	52	54	64	61	68	75	75	732

Factors affecting flow regime: N
Station type: TP

1985 runoff is 97% of previous mean
rainfall 102%

026004 Gypsey Race at Bridlington 1985

Measuring authority: YWA
First year: 1971

Grid reference: TA 165675
Level stn. (m OD) 11.00

Catchment area (sq km): 253.8
Max alt. (m OD): 211

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	0.209	0.478	0.320	0.415	0.455	0.273	0.137	0.049	0.005	0	0.007	0.067	0.201
(m^3s^{-1}):	Peak	0.50	0.52	0.42	0.55	0.64	0.39	0.28	0.12	0.03				
Runoff (mm)		2	5	3	4	5	3	1	1	0	0	0	1	25
Rainfall (mm)		93	4	66	66	76	58	80	81	38	28	119	73	782

Monthly and yearly statistics for previous record (Jan 1971 to Dec 1984—incomplete or missing months total 2.9 years)

Mean	Avg	0.211	0.480	0.766	0.714	0.454	0.279	0.140	0.072	0.029	0.013	0.018	0.084	0.270
flows	Low	0	0	0.005	0.010	0	0	0	0	0	0	0	0	0.002
(m^3s^{-1})	High	0.827	2.043	2.419	2.240	1.200	0.846	0.458	0.284	0.149	0.060	0.108	0.363	0.633
Peak flow (m^3s^{-1})		1.36	2.56	3.51	3.19	1.56	0.98	0.66	0.43	0.21	0.13	0.17	0.62	3.51
Runoff (mm)		2	5	8	7	5	3	1	1	0	0	0	1	34
Rainfall (mm)		76	47	64	46	54	55	49	62	66	69	63	76	727

Factors affecting flow regime: G I
Station type: C

1985 runoff is 74% of previous mean
rainfall 108%

027007 Ure at Westwick Lock 1985

Measuring authority: YWA
First year: 1958
Grid reference: SE 356671
Level stn. (m OD) 14.19
Catchment area (sq km): 914.6
Max alt. (m OD): 713

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	20.570	14.830	13.260	29.070	13.630	7.611	12.150	31.230	24.080	13.560	14.690	39.980	19.555
(m^3s^{-1})	Peak	147.70	99.44	87.26	122.20	69.38	55.04	100.00	187.30	163.90	88.23	102.70	304.10	304.10
Runoff (mm)		60	39	39	82	40	22	36	91	68	40	42	117	676
Rainfall (mm)		91	12	82	99	91	48	104	180	86	67	93	146	1099

Monthly and yearly statistics for previous record (Oct 1958 to Dec 1984—incomplete or missing months total 0.5 years)

Mean	Avg.	33.610	29.210	27.180	19.320	13.000	8.825	7.607	11.000	13.700	21.950	29.370	31.920	20.522
flows	Low	4.009	3.886	10.250	5.674	3.831	3.024	2.202	1.287	1.450	5.856	7.078	11.330	12.946
(m^3s^{-1})	High	59.590	84.770	60.330	40.980	29.500	21.400	16.180	31.600	33.030	68.480	65.010	57.370	27.066
Peak flow (m^3s^{-1})		537.90	307.30	413.10	263.30	170.80	161.50	144.50	260.20	296.20	266.50	288.80	283.20	537.90
Runoff (mm)		98	78	80	55	38	25	22	32	39	64	83	93	708
Rainfall (mm)		120	83	95	77	75	72	74	87	100	105	123	122	1133

Factors affecting flow regime: S P
Station type: B VA

1985 runoff is 95% of previous mean
rainfall 97%

027030 Dearne at Adwick 1985

Measuring authority: YWA
First year: 1963
Grid reference: SE 477020
Level stn. (m OD) 12.68
Catchment area (sq km): 310.8
Max alt. (m OD): 381

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	4.513	3.074	2.550	4.896	3.458	2.688	1.710	1.878	1.402	1.356	1.740	2.915	2.882
(m^3s^{-1})	Peak	17.61	8.30	6.81	39.52	18.09	14.03	5.32	4.92	2.46	7.33	8.04	13.02	39.52
Runoff (mm)		39	24	22	41	30	22	15	16	12	12	15	25	272
Rainfall (mm)		61	3	43	74	73	55	46	73	16	26	59	65	594

Monthly and yearly statistics for previous record (Nov 1983 to Dec 1984—incomplete or missing months total 0.7 years)

Mean	Avg.	4.833	5.528	4.981	3.932	3.089	2.640	1.884	1.887	1.943	2.449	3.649	4.403	3.423
flows	Low	1.946	1.648	1.433	1.273	1.303	1.106	0.807	0.765	0.873	0.922	1.029	1.245	2.104
(m^3s^{-1})	High	9.214	14.340	10.750	8.866	7.380	7.299	3.699	3.054	5.658	5.171	7.632	10.980	5.284
Peak flow (m^3s^{-1})		51.76	56.32	41.85	58.42	43.97	55.58	31.94	18.07	28.97	26.56	51.52	56.65	58.42
Runoff (mm)		42	43	43	33	27	22	16	16	18	21	30	38	348
Rainfall (mm)		62	56	61	52	60	56	48	63	64	56	74	67	719

Factors affecting flow regime: GEI
Station type: C VA

1985 runoff is 78% of previous mean
rainfall 83%

027031 Colne at Colnebridge 1985

Measuring authority: YWA
First year: 1964
Grid reference: SE 174199
Level stn. (m OD) 47.95
Catchment area (sq km): 245.0
Max alt. (m OD): 582

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	4.524	2.577	1.752	5.155	2.307	2.110	1.056	3.213	2.058	1.407	2.335	6.444	2.912
(m^3s^{-1})	Peak	33.20	18.67	5.27	18.58	20.17	12.46	4.32	27.22	6.20	16.98	12.32	51.15	51.15
Runoff (mm)		49	25	19	55	25	22	12	35	22	15	25	70	375
Rainfall (mm)		95	8	76	111	81	71	73	147	54	50	88	146	1000

Monthly and yearly statistics for previous record (Jan 1964 to Dec 1984—incomplete or missing months total 0.4 years)

Mean	Avg	7.118	6.973	6.494	4.553	2.975	2.183	1.854	2.133	2.918	4.218	6.589	7.497	4.614
flows	Low	2.132	1.873	2.730	1.278	0.843	0.677	0.598	0.369	0.807	0.694	1.321	2.410	2.483
(m^3s^{-1})	High	13.990	16.720	17.800	12.180	7.024	5.578	6.420	5.799	13.780	10.750	10.500	21.410	6.676
Peak flow (m^3s^{-1})		127.00	124.00	143.00	155.50	93.45	67.08	82.64	73.62	210.60	272.10	121.50	168.00	272.10
Runoff (mm)		78	69	71	48	33	23	20	23	31	46	70	82	594
Rainfall (mm)		112	89	103	77	80	76	71	91	107	106	133	125	1170

Factors affecting flow regime: S PG I
Station type: C VA

1985 runoff is 63% of previous mean
rainfall 85%

027042 Dove at Kirkby Mills 1985

Measuring authority: YWA
First year: 1972
Grid reference: SE 705855
Level stn. (m OD) 35.60
Catchment area (sq km): 51.8
Max alt. (m OD): 429

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg.	2.057	1.292	0.875	1.968	0.773	0.629	0.457	0.912	0.621	0.604	1.357	1.408	1.080
(m^3s^{-1})	Peak	14.96	10.84	3.43	21.66	1.77	3.58	1.69	3.88	2.49	4.35	4.42	4.21	21.66
Runoff (mm)		106	60	45	98	40	31	24	47	31	31	68	73	656
Rainfall (mm)		143	7	68	104	56	68	90	106	52	56	120	73	943

Monthly and yearly statistics for previous record (Feb 1972 to Dec 1984)

Mean	Avg.	1.730	1.684	1.694	1.059	0.830	0.630	0.503	0.508	0.669	1.079	1.181	1.678	1.102
flows	Low	0.699	0.541	0.347	0.376	0.368	0.279	0.211	0.161	0.246	0.251	0.543	0.853	0.640
(m^3s^{-1})	High	2.861	3.180	4.701	1.686	1.702	1.099	0.922	1.397	2.743	2.683	2.032	3.237	1.554
Peak flow (m^3s^{-1})		37.45	36.68	40.93	6.77	15.44	7.43	19.33	32.36	56.38	24.71	23.85	53.38	56.38
Runoff (mm)		89	80	88	53	43	32	26	26	33	56	59	87	672
Rainfall (mm)		98	63	90	53	69	64	65	69	94	92	86	100	943

Factors affecting flow regime: N
Station type: FV

1985 runoff is 98% of previous mean
rainfall 100%

027043 Wharfe at Addingham 1985

Measuring authority: YWA
First year: 1974
Grid reference: SE 092494
Level stn (m OD) 79.70
Catchment area (sq km): 427.0
Max alt. (m OD): 704

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	11.760	7.626	7.166	18.410	6.123	4.996	9.271	26.270	19.520	11.060	11.310	26.050	13.297
(m^3s^{-1})	Peak	110.60	67.68	62.13	107.10	41.06	61.03	143.30	273.80	144.80	97.59	108.70	238.00	273.80
Runoff (mm)		74	43	45	112	38	30	58	165	119	69	69	163	985
Rainfall (mm)		94	19	85	118	89	72	131	226	133	80	98	192	1337

Monthly and yearly statistics for previous record (Jan 1974 to Dec 1984—incomplete or missing months total 0.3 years)

Mean	Avg.	28.940	17.870	22.120	8.426	7.455	5.227	3.875	7.053	13.220	19.040	24.060	24.150	14.956
flows	Low	18.670	8.801	6.391	2.453	1.623	1.740	1.245	1.143	7.978	6.422	8.263	5.972	10.487
(m^3s^{-1})	High	32.590	28.410	52.490	17.500	16.100	9.551	9.543	17.080	23.460	37.310	32.450	44.680	19.543
Peak flow (m^3s^{-1})		509.00	342.00	552.60	205.10	89.87	114.70	163.80	175.60	244.90	370.00	400.00	320.30	552.60
Runoff (mm)		169	103	139	51	47	32	24	44	80	119	146	151	1108
Rainfall (mm)		170	90	135	61	77	85	68	102	145	142	158	167	1400

Factors affecting flow regime: S P
Station type: C VA

1985 runoff is 89% of previous mean
rainfall 96%

027059 Laver at Ripon 1985

Measuring authority: YWA
First year: 1977
Grid reference: SE 301710
Level stn. (m OD) 29.60
Catchment area (sq km): 87.5
Max alt. (m OD): 406

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg.	1.376	0.684	0.721	1.575	0.872	0.315	0.282	0.952	0.345	0.432	0.784	1.684	0.835
(m^3s^{-1})	Peak	13.20	3.02	6.03	11.71	13.32	0.77	1.98	10.94	2.19	6.80	8.62	12.27	13.32
Runoff (mm)		42	19	22	47	27	9	9	29	10	13	23	52	302
Rainfall (mm)		85	10	72	92	89	38	92	140	56	57	77	111	919

Monthly and yearly statistics for previous record (Nov 1977 to Dec 1984—incomplete or missing months total 0.2 years)

Mean	Avg.	2.232	1.834	2.173	1.027	0.812	0.636	0.253	0.339	0.300	0.730	1.356	2.129	1.150
flows	Low	1.519	0.659	1.254	0.453	0.273	0.247	0.098	0.096	0.229	0.167	0.419	0.848	1.070
(m^3s^{-1})	High	3.265	3.090	3.850	1.843	1.881	1.264	0.480	0.841	0.462	1.506	2.400	3.786	1.139
Peak flow (m^3s^{-1})		24.06	16.85	22.65	15.17	11.40	16.75	6.29	11.48	10.21	13.64	15.01	39.14	39.14
Runoff (mm)		68	51	67	30	25	19	8	10	9	22	40	65	415
Rainfall (mm)*		112	66	113	50	63	72	37	76	83	90	107	131	1000

*(1978-1984)

Factors affecting flow regime: S P
Station type: C

1985 runoff is 73% of previous mean
rainfall 92%

027071 Swale at Crakehill 1985

Measuring authority: YWA
First year: 1980
Grid reference: SE 425734
Level stn (m OD) 12.00
Catchment area (sq km): 1363.0
Max alt. (m OD): 713

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg.	27.390	16.050	15.520	28.870	15.280	8.198	9.520	24.220	16.080	10.320	15.480	35.830	18.563
(m^3s^{-1})	Peak	119.30	93.83	69.31	113.30	86.26	34.74	67.77	124.80	90.26	48.30	58.75	183.70	183.70
Runoff (mm)		54	28	30	55	30	16	19	48	31	20	29	70	430
Rainfall (mm)		74	8	65	80	87	42	88	136	58	45	77	98	858

Monthly and yearly statistics for previous record (Jun 1980 to Dec 1984)

Mean	Avg.	39.410	25.860	34.770	18.700	14.640	12.570	6.486	7.441	9.774	22.530	29.590	30.050	20.985
flows	Low	25.210	16.470	24.240	7.819	5.557	6.121	2.712	3.684	6.442	16.110	7.541	17.470	19.197
(m^3s^{-1})	High	56.800	44.450	60.040	34.770	32.370	17.180	12.230	16.200	13.620	35.430	44.280	40.580	21.427
Peak flow (m^3s^{-1})		230.70	187.90	188.30	140.70	90.61	107.60	103.50	98.00	114.50	184.50	161.40	179.10	230.70
Runoff (mm)		77	47	68	36	29	24	13	15	19	44	56	59	486
Rainfall (mm)*		123	51	75	68	68	45	19	47	97	86	96	96	871

*(1983-1984)

Factors affecting flow regime: N
Station type: C

1985 runoff is 89% of previous mean
rainfall 99%

028012 Trent at Yoxall 1985

Measuring authority: STWA
First year: 1959
Grid reference: SK 131177
Level stn. (m OD) 56.40
Catchment area (sq km): 1229.0
Max alt. (m OD): 318

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg.	14.080	12.780	11.620	16.550	9.022	7.062	6.184	9.861	7.873	9.685	12.550	20.590	11.488
(m^3s^{-1})	Peak	44.34	25.09	18.57	51.67	21.65	20.87	12.54	22.47	10.23	35.87	37.54	53.95	53.95
Runoff (mm)		31	25	25	35	20	15	13	21	17	21	26	45	295
Rainfall (mm)		44	25	41	72	70	85	57	81	21	56	80	86	718

Monthly and yearly statistics for previous record (Oct 1959 to Dec 1984—incomplete or missing months total 0.2 years)

Mean	Avg.	18.120	17.910	14.100	11.700	10.510	8.787	8.763	9.429	10.390	10.920	13.130	17.270	12.582
flows	Low	6.268	5.886	6.640	4.950	5.258	4.827	3.611	2.482	4.874	5.621	5.898	6.424	7.404
(m^3s^{-1})	High	33.150	48.650	33.900	24.530	25.480	12.910	15.520	20.230	22.650	25.890	34.800	50.320	18.198
Peak flow (m^3s^{-1})		118.10	112.70	79.18	72.32	75.20	47.60	52.25	115.30	77.02	66.26	83.25	126.60	126.60
Runoff (mm)		39	36	31	25	23	19	19	21	22	24	28	38	323
Rainfall (mm)		71	54	58	54	68	61	57	69	74	63	75	75	777

Factors affecting flow regime: SRPGEI
Station type: VA

1985 runoff is 91% of previous mean
rainfall 92%

028018 Dove at Marston on Dove 1985

Measuring authority: STWA
First year: 1962
Grid reference: SK 235288
Level stn. (m OD) 47.20
Catchment area (sq km) 883.2
Max alt. (m OD) 555

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	14.930	11.410	9.789	20.860	9.801	9.663	6.223	2.890	7.779	9.387	13.650	24.270	12.554
(m^3s^{-1})	Peak	87.54	27.07	17.31	121.00	21.09	57.56	12.69	39.70	14.31	64.03	83.36	112.70	121.00
Runoff (mm)		45	31	30	61	30	28	19	39	23	28	40	74	**448**
Rainfall (mm)		69	21	54	94	76	104	77	106	34	67	88	105	**895**

Monthly and yearly statistics for previous record (Oct 1961 to Dec 1984—incomplete or missing months total 0.1 years)

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Mean	Avg	22.360	20.680	17.250	13.730	12.210	8.962	7.538	7.403	8.613	10.880	16.560	21.290	**13.927**
flows	Low	7.822	4.615	8.943	6.195	4.831	3.452	2.434	1.913	2.821	3.495	5.684	7.907	**7.724**
(m^3s^{-1})	High	31.880	55.910	36.570	24.440	22.480	14.700	15.530	14.630	29.350	22.830	31.070	56.460	**19.411**
Peak flow (m^3s^{-1})		187.60	194.60	129.70	100.30	121.40	69.70	77.10	101.90	113.90	137.10	130.80	202.80	**202.80**
Runoff (mm)		68	57	52	40	37	26	23	22	25	33	49	65	**498**
Rainfall (mm)		92	71	75	64	77	73	64	79	86	78	96	93	**948**

Factors affecting flow regime: SRPG
Station type: FV

1985 runoff is 90% of previous mean
rainfall 94%

028031 Manifold at Ilam 1985

Measuring authority: STWA
First year: 1968
Grid reference: SK 140507
Level stn. (m OD) 131.00
Catchment area (sq km) 148.5
Max alt. (m OD) 513

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	4.192	2.489	2.634	5.985	2.359	2.947	1.620	4.560	2.385	2.597	3.879	6.343	**3.499**
(m^3s^{-1})	Peak	36.72	7.68	5.15	47.36	6.98	32.91	4.10	22.65	6.90	21.94	66.86	48.89	**66.86**
Runoff (mm)		76	41	48	104	43	51	29	82	42	47	68	114	**744**
Rainfall (mm)		85	22	59	117	75	104	88	137	48	63	100	132	**1030**

Monthly and yearly statistics for previous record (May 1968 to Dec 1984—incomplete or missing months total 0.1 years)

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Mean	Avg	6.410	5.592	4.795	3.452	2.510	1.774	1.462	1.659	1.793	2.948	5.071	5.203	**3.546**
flows	Low	3.657	2.935	2.528	1.277	0.812	0.745	0.493	0.386	0.535	0.716	1.555	2.135	**2.241**
(m^3s^{-1})	High	8.522	12.710	9.455	5.828	5.713	3.443	3.481	4.517	4.147	6.697	8.198	8.741	**4.806**
Peak flow (m^3s^{-1})		80.13	74.53	49.89	43.09	52.40	39.58	37.29	137.00	45.69	75.78	91.61	66.25	**137.00**
Runoff (mm)		116	92	86	60	45	31	26	30	31	53	89	94	**754**
Rainfall (mm)*		127	93	94	69	77	75	68	73	94	92	125	108	**1095**

*(1969-1984)

Factors affecting flow regime: P E
Station type: C

1985 runoff is 99% of previous mean
rainfall 94%

028039 Rea at Calthorpe Park 1985

Measuring authority: STWA
First year: 1967
Grid reference: SP 071847
Level stn. (m OD) 104.24
Catchment area (sq km) 74.0
Max alt. (m OD) 286

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	0.890	0.751	0.774	1.216	0.681	0.890	0.534	0.604	0.345	0.435	0.697	1.341	**0.763**
(m^3s^{-1})	Peak	12.90	4.39	7.12	25.15	20.11	12.44	4.80	10.81	3.45	17.82	19.15	30.45	**30.45**
Runoff (mm)		32	25	28	43	25	31	19	22	12	16	24	49	**325**
Rainfall (mm)		54	35	56	93	71	96	65	73	20	41	75	107	**786**

Monthly and yearly statistics for previous record (May 1967 to Dec 1984—incomplete or missing months total 1.1 years)

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Mean	Avg	1.190	1.120	1.100	0.736	0.789	0.656	0.511	0.629	0.682	0.659	0.870	1.105	**0.836**
flows	Low	0.601	0.549	0.483	0.316	0.355	0.287	0.258	0.367	0.295	0.320	0.493	0.530	**0.602**
(m^3s^{-1})	High	1.634	2.610	2.101	1.489	1.780	1.324	0.890	1.366	1.423	1.408	1.753	1.934	**1.058**
Peak flow (m^3s^{-1})		24.64	27.44	28.64	25.15	30.37	37.44	46.86	41.25	40.85	23.28	24.97	54.02	**54.02**
Runoff (mm)		43	37	40	26	29	23	18	23	24	24	30	40	**357**
Rainfall (mm)*		78	65	69	52	71	62	53	71	79	57	73	77	**807**

*(1968-1984)

Factors affecting flow regime: E
Station type: C

1985 runoff is 91% of previous mean
rainfall 97%

028080 Tame at Lea Marston Lakes 1985

Measuring authority: STWA
First year: 1981
Grid reference: SP 207937
Level stn. (m OD) 66.23
Catchment area (sq km) 799.0
Max alt. (m OD) 267

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	15.090	14.970	13.700	17.190	12.530	16.540	10.660	11.190	8.789	9.813	13.030	19.650	**13.596**
(m^3s^{-1})	Peak	65.03	39.55	29.64	75.30	56.17	75.20	34.18	44.49	22.74	72.02	68.53	69.44	**75.30**
Runoff (mm)		51	45	46	56	42	54	36	38	29	33	42	66	**536**
Rainfall (mm)		47	35	42	66	63	105	56	67	17	37	78	96	**709**

Monthly and yearly statistics for previous record (Oct 1957 to Dec 1984—incomplete or missing months total 0.3 years)

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Mean	Avg	17.450	17.210	15.680	13.340	12.660	11.110	10.200	10.790	11.400	12.020	14.260	16.490	**13.535**
flows	Low	8.994	8.855	8.797	7.259	7.321	6.655	6.369	6.978	6.655	7.852	7.876	9.057	**9.699**
(m^3s^{-1})	High	24.130	35.140	26.590	22.000	24.690	15.760	17.220	16.970	19.440	25.600	27.880	32.880	**17.355**
Peak flow (m^3s^{-1})		67.90	66.01	86.27	90.46	80.09	72.21	94.78	94.43	72.02	64.85	127.60	219.20	**219.20**
Runoff (mm)		59	53	53	43	42	36	34	36	37	40	46	55	**535**
Rainfall (mm)		66	52	55	51	61	57	55	70	67	58	65	71	**728**

Factors affecting flow regime: EI
Station type: C

1985 runoff is 100% of previous mean
rainfall 97%

028082 Soar at Littlethorpe 1985

Measuring authority: STWA
First year: 1982
Grid reference: SP 542973
Level stn. (m OD) 61.39
Catchment area (sq km): 183 9
Max alt. (m OD): 151

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	2.173	1.587	1.275	1.279	0 704	1.142	0 408	0 487	0.307	0 392	1.029	3.273	1.171
(m^3s^{-1})	Peak	14.70	3.91	3.74	5 14	1.59	7.34	1.16	1.12	0 61	1.86	7 20	13 43	14.70
Runoff (mm)		32	21	19	18	10	16	6	7	4	6	15	48	201
Rainfall (mm)		49	27	31	47	54	99	59	57	18	33	65	88	627

Monthly and yearly statistics for previous record (Nov 1982 to Dec 1984—incomplete or missing months total 0.2 years)

Mean	Avg	2 896	2.587	1 534	1.807	1.551	0 831	0 380	0.372	0.662	0 606	1.734	2.059	1.411
flows	Low	2 466	2 338	1.415	0 834	0 680	0.700	0 380	0 361	0.662	0 500	0 751	1 474	1.448
(m^3s^{-1})	High	3 327	2 835	1 653	2 780	2 422	0 961	0.380	0 382	0 662	0.713	2.425	2.748	1.448
Peak flow (m^3s^{-1})		14.12	12.04	9.38	12 27	12.96	6 79	1.74	1.74	4 31	4.40	16.32	13 89	16.32
Runoff (mm)		42	35	22	25	23	12	6	5	9	9	24	30	243
Rainfall (mm)		62	36	57	40	61	69	26	46	78	52	65	46	638

Factors affecting flow regime E
Station type: EM

1985 runoff is 83% of previous mean
rainfall 98%

029003 Lud at Louth 1985

Measuring authority: AWA
First year 1968
Grid reference TF 337879
Level stn (m OD) 15 42
Catchment area (sq km): 55.2
Max alt. (m OD): 159

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	0 591	0.727	0 480	0 525	0 538	0.465	0 362	0 298	0 231	0 197	0 220	0 565	0.433
(m^3s^{-1})	Peak	3 70	0 89	0.88	1 33	1 23	0 67	1 80	0 71	0 95	0.67	0 84	2.18	3.70
Runoff (mm)		29	32	23	25	26	22	18	14	11	10	10	27	247
Rainfall (mm)		78	3	63	51	81	65	70	69	25	30	78	90	703

Monthly and yearly statistics for previous record (Aug 1968 to Dec 1984)

Mean	Avg	0 616	0 818	0 794	0 710	0 580	0 438	0 337	0 283	0 243	0 245	0 317	0 400	0.480
flows	Low	0 139	0.157	0 162	0 150	0.156	0 131	0 112	0.102	0.112	0 130	0 132	0 125	0.178
(m^3s^{-1})	High	1 279	1 428	1 338	1 289	1 177	0 687	0 507	0 414	0 625	0 719	1 158	0 912	0.703
Peak flow (m^3s^{-1})		3 68	3 81	3 58	5 06	3 51	3 27	3 40	3 10	3 30	2 96	6 77	3 10	6.77
Runoff (mm)		30	36	39	33	28	21	16	14	11	12	15	19	274
Rainfall (mm)		66	49	63	52	53	57	49	60	57	55	69	65	695

Factors affecting flow regime PG I
Station type C

1985 runoff is 90% of previous mean
rainfall 101%

030004 Partney Lymn at Partney Mill 1985

Measuring authority: AWA
First year 1962
Grid reference. TF 402676
Level stn (m OD) 14 95
Catchment area (sq km): 61.6
Max alt (m OD) 142

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	1 094	0 478	0 501	0 609	0 466	0 372	0 287	0 385	0 272	0 274	0 507	1 010	0.521
(m^3s^{-1})	Peak	10 01	1 25	0 98	3.28	1 04	0 92	1 75	1 70	0 49	0 65	1 18	7 06	10 01
Runoff (mm)		48	19	22	26	20	16	12	17	11	12	21	44	267
Rainfall (mm)		82	4	55	52	68	75	71	75	23	27	78	86	696

Monthly and yearly statistics for previous record (Jun 1962 to Dec 1984—incomplete or missing months total 0 4 years)

Mean	Avg	0 806	0 800	0 725	0 615	0 456	0 328	0 274	0 282	0 284	0 383	0 552	0 722	0.518
flows	Low	0 351	0 300	0 276	0 228	0 200	0 116	0 088	0 107	0 151	0 190	0 193	0 210	0.292
(m^3s^{-1})	High	1 475	1 838	1 538	1 518	0 807	0 691	0 862	0 593	0 917	1 144	1.112	1 804	0 754
Peak flow (m^3s^{-1})		8 44	12.59	7 71	13.34	8 56	8 13	13 38	7 06	6 64	8 07	10 17	8 48	13.38
Runoff (mm)		35	32	32	26	20	14	12	12	12	17	23	31	265
Rainfall (mm)		59	50	60	55	56	58	50	64	56	52	71	63	694

Factors affecting flow regime G I
Station type C

1985 runoff is 101% of previous mean
rainfall 100%

031002 Glen at Kates Bridge (total) 1985

Measuring authority AWA
First year 1960 Level stn. (m OD) 6 10 Max alt. (m OD) 129
Grid reference: TF 106149
Catchment area (sq km): 341 9

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	2 347	1 490	1.791	1 633	1 635	1 845	0 551	0 332	0 181	0 095	0 108	1.686	1.141
(m^3s^{-1})	Peak													
Runoff (mm)		18	11	14	12	13	14	4	3	1	1	1	13	105
Rainfall (mm)		49	15	46	44	80	82	53	49	14	25	63	77	597

Monthly and yearly statistics for previous record (Oct 1960 to Dec 1984)

Mean	Avg	1 949	2 511	2 423	1 830	1 449	0 752	0 439	0 383	0 337	0.493	0 898	1 437	1.235
flows	Low	0 093	0 048	0 033	0 018	0 008	0 004	0	0 001	0 008	0 024	0 020	0 078	0.154
(m^3s^{-1})	High	6 351	10 110	6 317	4 936	5 060	2 182	1 465	1 615	1 873	2.267	5 552	6 988	2.336
Peak flow (m^3s^{-1})														
Runoff (mm)		15	18	19	14	11	6	3	3	3	4	7	11	114
Rainfall (mm)		52	42	49	52	50	53	45	62	54	50	57	56	622

Factors affecting flow regime. G
Station type FV

1985 runoff is 92% of previous mean
rainfall 96%

031007 Welland at Barrowden 1985

Measuring authority: AWA
First year: 1967

Grid reference: SP 948999
Level stn (m OD) 34.90

Catchment area (sq km): 398.9
Max alt. (m OD) 228

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	3 882	3.046	2 671	3 385	1.656	2 165	0 797	0 750	0.522	0 553	1.106	7.547	2.340
(m^3s^{-1}):	Peak	23.37	7 73	4.17	22.21	6.29	18 97	2 36	1 21	0.98	1.85	2 65	39.58	39.58
Runoff (mm)		26	18	18	22	11	14	5	5	3	4	7	51	185
Rainfall (mm)		48	22	40	51	69	92	64	53	17	33	65	100	654

Monthly and yearly statistics for previous record (Feb 1968 to Dec 1984—incomplete or missing months total 0.2 years)

Mean	Avg	4.702	5 288	4 540	2 560	2.039	1 107	0 827	0.812	0 694	1.251	1.900	3 367	2.412
flows	Low	0 517	0 425	0 353	0 257	0 232	0 159	0.092	0 153	0 271	0 229	0 317	0.411	1.037
(m^3s^{-1})	High	8 949	17 030	9.687	7 699	7 311	3 095	4 468	4.501	4.329	5.150	6.430	6 528	3.667
Peak flow (m^3s^{-1})		36 93	74.42	107 80	79 43	46.95	27.44	38 23	39 91	12 55	22 87	50 37	40 13	107.80
Runoff (mm)		32	32	30	17	14	7	6	5	5	8	12	23	191
Rainfall (mm)		58	46	54	45	56	57	48	63	54	47	57	57	642

Factors affecting flow regime: S E
Station type C

1985 runoff is 97% of previous mean rainfall 102%

032003 Harpers Brook at Old Mill Bridge 1985

Measuring authority: AWA
First year: 1938

Grid reference: SP 983799
Level stn. (m OD) 30 30

Catchment area (sq km) 74.3
Max alt. (m OD): 146

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	0 796	0 471	0.395	0 511	0 238	0 421	0.128	0 116	0 091	0 098	0.154	1 307	0.394
(m^3s^{-1}).	Peak	12 74	1.69	1 07	5 85	1 05	8 46	0 54	0 31	0 20	0 75	0 59	17.90	17.90
Runoff (mm)		29	15	14	18	9	15	5	4	3	4	5	47	167
Rainfall (mm)		47	20	37	44	58	89	60	50	14	35	64	100	618

Monthly and yearly statistics for previous record (Dec 1938 to Dec 1984—incomplete or missing months total 0.4 years)

Mean	Avg	0.787	0 824	0.723	0 460	0 322	0.215	0 146	0 155	0 146	0 203	0.427	0 571	0.413
flows	Low	0 097	0.080	0 076	0 065	0 056	0 048	0 053	0 048	0 049	0 057	0 069	0 077	0.159
(m^3s^{-1})	High	2 766	2.496	2 363	1 334	1.215	1.050	0 685	0.791	1.162	0.980	1 688	1.775	0.692
Peak flow (m^3s^{-1})		16 06	18.58	17 01	22 00	18 65	10.54	12 49	20 50	6.80	7 73	11.74	15 81	22.00
Runoff (mm)		28	27	26	16	12	8	5	6	5	7	15	21	175
Rainfall (mm)		58	43	48	43	52	52	51	63	51	52	61	57	631

Factors affecting flow regime:
Station type CC

1985 runoff is 95% of previous mean rainfall 98%

032004 Ise Brook at Harrowden Old Mill 1985

Measuring authority: AWA
First year: 1943

Grid reference: SP 898715
Level stn. (m OD) 45 31

Catchment area (sq km) 194 0
Max alt. (m OD) 197

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	2 087	1.702	1.164	1 217	0.711	1.178	0 474	0 423	0.285	0 344	0.625	3.200	1.118
(m^3s^{-1}):	Peak	10.09	3 71	2 98	3 80	1 89	7.34	2.59	1 37	0 64	2 01	1.89	14.19	14.19
Runoff (mm)		29	21	16	16	10	16	7	6	4	5	8	44	181
Rainfall (mm)		47	21	38	44	58	97	60	52	15	38	63	105	638

Monthly and yearly statistics for previous record (Dec 1943 to Dec 1984—incomplete or missing months total 1.4 years)

Mean	Avg	2.476	2 688	2 342	1.507	1 157	0 758	0 577	0 547	0.504	0.735	1.378	1.924	1.377
flows	Low	0 459	0.324	0 219	0 329	0.143	0 128	0 166	0.110	0 128	0 185	0 176	0.219	0.422
(m^3s^{-1})	High	6 441	6 949	7 984	3.834	3 640	2 421	3 018	2 655	2.283	4 384	5 331	5 859	2.337
Peak flow (m^3s^{-1})		17 10	17 51	28.39	20 77	17.73	24.04	19 54	25.10	7 79	13.08	16.00	16.99	28.39
Runoff (mm)		34	34	32	20	16	10	8	8	7	10	18	27	224
Rainfall (mm)		55	43	49	44	54	54	50	64	55	51	59	58	636

Factors affecting flow regime: S E
Station type: FV

1985 runoff is 81% of previous mean rainfall 100%

033003 Cam at Bottisham 1985

Measuring authority: AWA
First year: 1936

Grid reference: TL 508657
Level stn. (m OD) 2 39

Catchment area (sq km): 803 0
Max alt. (m OD): 168

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	7 109	6.363	6 079	3 751	3.334	4 609		2.359	1.839	1.660	1 684	3.116	
(m^3s^{-1}):	Peak													
Runoff (mm)		24	19	20	12	11	15		8	6	6	5	10	
Rainfall (mm)		42	20	40	26	52	126	45	47	15	14	42	78	547

Monthly and yearly statistics for previous record (Oct 1936 to Dec 1984—incomplete or missing months total 0.8 years)

Mean	Avg	5.915	6.241	5.889	4 597	3 377	2 353	1 917	1.728	1.692	2.117	3 464	4.221	3.613
flows	Low	1 058	1.202	1.142	1 159	0.944	0.517	0 621	0 471	0 784	0 803	0.880	0.995	1.082
(m^3s^{-1})	High	19.210	16 410	19 610	18.430	8 775	5.400	6 419	5.471	6 698	6.503	12.120	12.070	8.279
Peak flow (m^3s^{-1})														
Runoff (mm)		20	19	20	15	11	8	6	6	5	7	11	14	142
Rainfall (mm)		51	37	43	39	48	47	52	57	52	53	59	51	589

Factors affecting flow regime: GEI
Station type: MIS

1985 runoff is % of previous mean rainfall 93%

033012 Kym at Meagre Farm 1985

Measuring authority: AWA
First year: 1960
Grid reference: TL 155631
Level stn. (m OD) 17.22
Catchment area (sq km): 137.5
Max alt. (m OD): 101

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg.	1 663	0 862	0 445	0 264	0 087	0 223	0 047	0.044	0 021	0 025	0 039	1 082	0 400
(m^3s^{-1}):	Peak	16 05	5.82	2.03	0.93	0.26	2.17	0.20	0.19	0 04	0.07	0 09	12.90	16.05
Runoff (mm)		32	15	9	5	2	4	1	1	0	0	1	21	92
Rainfall (mm)		49	20	31	34	47	91	50	48	13	25	48	93	549

Monthly and yearly statistics for previous record (May 1960 to Dec 1984—incomplete or missing months total 0.1 years)

Mean	Avg	1.341	1 479	1 205	0.731	0 376	0 244	0 146	0 109	0.052	0 338	0.639	1.008	0.635
flows	Low	0 074	0 047	0 044	0 041	0.024	0.009	0 001	0 004	0 017	0.015	0 022	0 050	0.103
(m^3s^{-1})	High	3.296	5 577	3 474	2.055	1 469	1.489	2.438	1 096	0.158	2.200	3 718	3.328	1.048
Peak flow (m^3s^{-1})		25 26	22 70	30 24	30.75	20 61	24.10	16.68	23.42	1.34	25 91	34.71	33.98	34.71
Runoff (mm)		26	26	23	14	7	5	3	2	1	7	12	20	146
Rainfall (mm)		50	40	47	47	53	57	47	55	51	51	54	56	608

Factors affecting flow regime: EI
Station type: CB

1985 runoff is 63% of previous mean rainfall 90%

033013 Sapiston at Rectory Bridge 1985

Measuring authority: AWA
First year: 1960
Grid reference: TL 896791
Level stn (m OD) 15.62
Catchment area (sq km) 205.9
Max alt. (m OD): 97

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg.	1 642	0.889	0.805	0 877	0.748	1 744	0 608	0 466	0 342	0 292	0 308	0.709	0.786
(m^3s^{-1}):	Peak	8 18	1.96	1 37	3.25	3.25	5 20	1.12	0 61	0 43	0 35	0 40	3 61	8.18
Runoff (mm)		21	10	10	11	10	22	8	6	4	4	4	9	120
Rainfall (mm)		55	11	35	43	56	136	52	49	13	12	44	67	573

Monthly and yearly statistics for previous record (Jan 1960 to Dec 1984—incomplete or missing months total 0.3 years)

Mean	Avg	1.204	1 239	1 093	0.859	0 629	0.385	0 277	0 240	0.264	0 340	0.638	0.935	0 672
flows	Low	0 267	0.221	0.244	0.251	0.193	0 133	0 065	0.045	0 051	0 066	0 087	0 139	0.219
(m^3s^{-1})	High	2.417	3 295	2.491	1.947	1.802	0 790	0 469	0 734	1 682	1 008	2 404	2 396	1.071
Peak flow (m^3s^{-1})		9 93	10 90	10.85	8.76	7 31	2.24	2.39	2 93	8.95	6 26	6 97	10 45	10.90
Runoff (mm)		16	15	14	11	8	5	4	3	3	4	8	12	103
Rainfall (mm)		51	37	44	43	48	48	49	49	57	54	63	55	598

Factors affecting flow regime: GEI
Station type: TP

1985 runoff is 117% of previous mean rainfall 96%

033014 Lark at Temple 1985

Measuring authority: AWA
First year: 1960
Grid reference TL 758730
Level stn. (m OD) 8 95
Catchment area (sq km): 272.0
Max alt. (m OD): 113

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	2.360	1.678	1.738	1 498	1.359	1 691	1 078	0 960	0.788	0.729	0 750	1.232	1.322
(m^3s^{-1})	Peak	10 31	2.69	2 54	2.27	2 84	4 76	1 59	1 42	0 89	0.85	1 10	6 36	10.31
Runoff (mm)		23	15	17	14	13	16	11	9	8	7	7	12	153
Rainfall (mm)		51	12	41	38	57	116	54	52	14	13	48	74	568

Monthly and yearly statistics for previous record (Nov 1960 to Dec 1984)

Mean	Avg.	1 785	1 879	1 811	1.604	1.400	1 053	0 877	0.796	0 825	0 857	1.181	1.492	1.294
flows	Low	0.728	0 645	0.675	0 692	0 641	0 548	0.409	0 385	0 440	0.494	0 509	0 600	0.620
(m^3s^{-1})	High	3 062	3 562	3.614	2 999	3 476	1.878	1 422	1 267	2.893	1 847	2 677	2.662	2.014
Peak flow (m^3s^{-1})		11 08	12.05	12.12	10 31	11 83	5.46	3 31	5.24	22.06	8.25	10.12	11.22	22.06
Runoff (mm)		18	17	18	15	14	10	9	8	8	8	11	15	150
Rainfall (mm)		51	37	45	45	50	50	49	50	57	55	64	57	610

Factors affecting flow regime: GEI
Station type: CB

1985 runoff is 102% of previous mean rainfall 93%

033024 Cam at Dernford 1985

Measuring authority: AWA
First year: 1963
Grid reference: TL 466506
Level stn. (m OD) 14.75
Catchment area (sq km): 194.0
Max alt (m OD): 137

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	1.773	1.277	1 298	1 049	0 957	1.173	0 807	0 662	0 534	0 582	0.507	0.716	0.944
(m^3s^{-1}):	Peak	10 38	2 09	2.72	1 33	1 38	3.06	1.30	1 36	1.00	0.88	1.17	4 53	10.38
Runoff (mm)		24	16	18	14	13	16	11	9	7	8	7	10	153
Rainfall (mm)		45	14	41	25	52	128	37	43	11	14	42	76	528

Monthly and yearly statistics for previous record (Mar 1949 to Dec 1984—incomplete or missing months total 10.6 years)

Mean	Avg.	1 392	1 559	1.407	1 266	1.061	0 784	0.613	0 597	0 583	0 699	0.948	1.160	1.003
flows	Low	0.448	0 400	0.562	0 466	0 408	0 318	0 184	0 248	0.155	0.314	0 361	0 356	0.416
(m^3s^{-1})	High	2 308	2.702	2.608	2 431	2.144	1 337	0 960	1.457	1 965	1 625	2.789	2.105	1.506
Peak flow (m^3s^{-1})		9.66	14.09	10 22	9.94	13.63	6.94	3.60	4.79	10 99	9 10	12.50	12 06	14 09
Runoff (mm)		19	20	19	17	15	10	8	8	8	10	13	16	163
Rainfall (mm)*		49	40	42	41	47	47	52	58	55	52	59	54	596

*(1950-1984)

Factors affecting flow regime: GEI
Station type: TP

1985 runoff is 94% of previous mean rainfall 89%

034001 Yare at Colney 1985

Measuring authority: AWA
First year: 1959

Grid reference: TG 182082
Level stn. (m OD): 8 18

Catchment area (sq km): 231 8
Max alt. (m OD): 69

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	2 938	1.706	1.252	2 282	1.287	2 070	1.043	0 790	0 562	0 474	0 642	2 285	**1.444**
(m^3s^{-1})	Peak	12 39	4 30	1.54	5 21	3 82	4 01	3 50	1.21	0 77	0 92	0 89	5 26	**12.39**
Runoff (mm)		34	18	14	26	15	23	12	9	6	5	7	26	**196**
Rainfall (mm)		75	8	41	68	55	133	60	56	16	14	58	87	**671**

Monthly and yearly statistics for previous record (Oct 1959 to Dec 1984)

Mean	Avg	2 596	2 670	2.075	1.717	1.129	0 693	0.570	0 552	0.688	0 907	1 513	2 208	**1.437**
flows	Low	0 779	0 947	0 842	0 623	0 462	0 285	0.189	0 200	0.272	0 330	0 440	0 714	**0.770**
(m^3s^{-1})	High	5.181	4 931	4 783	3 442	2.487	1 267	1 041	1.607	3 420	2.898	3.971	5.905	**2.230**
Peak flow (m^3s^{-1})		18 97	18 63	16 90	20 51	10.10	3 46	4 54	6 34	21 61	7 48	11 20	21 15	**21.61**
Runoff (mm)		30	28	24	19	13	8	7	6	8	10	17	26	**198**
Rainfall (mm)		58	44	46	47	48	49	54	56	58	59	70	64	**653**

Factors affecting flow regime: G I
Station type: MIS

1985 runoff is 100% of previous mean
rainfall 103%

034002 Tas at Shotesham 1985

Measuring authority: AWA
First year: 1957

Grid reference: TM 226994
Level stn. (m OD): 9 60

Catchment area (sq km): 146.5
Max alt. (m OD): 65

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	1 186	0 374	0 275	0 606	0 540	1 515	0.627	0 404	0.244	0 240	0 361	1.355	**0.644**
(m^3s^{-1})	Peak	9 29	1 11	0 60	2 75	2 98	3 84	2 45	0 83	0 50	0.55	0 87	6.57	**9.29**
Runoff (mm)		22	6	5	11	10	27	11	7	4	4	6	25	**139**
Rainfall (mm)		74	9	36	62	58	138	62	54	12	11	50	84	**650**

Monthly and yearly statistics for previous record (Nov 1957 to Dec 1984—incomplete or missing months total 0 7 years)

Mean	Avg	1 486	1 395	1 013	0 772	0 536	0 377	0 341	0 299	0 420	0 472	0 804	1 170	**0.754**
flows	Low	0 287	0.368	0 302	0.309	0 219	0 175	0 120	0 126	0 158	0.183	0 229	0 300	**0.280**
(m^3s^{-1})	High	3 107	3 709	2 435	1 666	1.539	0 830	0.962	0 764	3.425	1 422	2.946	3 239	**1.299**
Peak flow (m^3s^{-1})		14 16	13 58	11 53	5 69	6 65	6.80	6 51	3.57	62.30	7.84	11 31	13.31	**62 30**
Runoff (mm)		27	23	19	14	10	7	6	5	7	9	14	21	**162**
Rainfall (mm)		55	41	41	44	47	47	50	54	55	56	65	60	**615**

Factors affecting flow regime: G I
Station type: FV

1985 runoff is 86% of previous mean
rainfall 106%

035002 Deben at Naunton Hall 1985

Measuring authority: AWA
First year: 1964

Grid reference: TM 322534
Level stn. (m OD): 5 49

Catchment area (sq km): 163 1
Max alt. (m OD): 62

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	2 576	0.536	0 852	1.534	0 408	1 174	0 209	0 258	0.192	0 204	0 217	1 719	**0.823**
(m^3s^{-1})	Peak	16 00	2.10	2.33	10.95	3.89	7.54	0.42	0 62	0 22	0 24	0 37	17.86	**17.86**
Runoff (mm)		42	8	14	24	7	19	3	4	3	3	3	28	**160**
Rainfall (mm)		66	11	45	51	51	111	46	64	11	10	46	95	**607**

Monthly and yearly statistics for previous record (Aug 1964 to Dec 1984—incomplete or missing months total 0.5 years)

Mean	Avg	1.697	1.535	1 086	0.747	0 473	0 199	0 163	0 163	0 328	0 394	0 893	1 303	**0.741**
flows	Low	0 259	0 247	0 228	0 176	0 107	0 052	0 044	0 054	0 076	0 139	0.173	0 197	**0.204**
(m^3s^{-1})	High	2 894	4 252	3 366	2 162	1 148	0 326	0 405	0 484	2 825	1.222	3 113	3.585	**1.060**
Peak flow (m^3s^{-1})		17.78	16.71	14 80	16.10	12.80	1.89	3 39	2 61	29 45	8 24	16 86	16.11	**29.45**
Runoff (mm)		28	23	18	12	7	3	3	3	5	6	14	21	**143**
Rainfall (mm)		53	40	44	42	45	43	46	43	59	51	64	55	**585**

Factors affecting flow regime: R G I
Station type: CC

1985 runoff is 111% of previous mean
rainfall 104%

037001 Roding at Redbridge 1985

Measuring authority: TWA
First year: 1950

Grid reference: TQ 415884
Level stn. (m OD): 5.72

Catchment area (sq km): 303.3
Max alt. (m OD): 117

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	4 524	1 845	2.286	1 486	0 947	1 552	1.101	0 707	0 339	0 297	0.452	3.327	**1 572**
(m^3s^{-1})	Peak	18.10	4 72	8.14	8 51	17 20	7.76	17 22	2 42	0 80	1.14	3 44	29 90	**29.90**
Runoff (mm)		40	15	20	13	8	13	10	6	3	3	4	29	**164**
Rainfall (mm)		43	19	39	29	59	107	62	58	11	15	47	83	**572**

Monthly and yearly statistics for previous record (Feb 1950 to Dec 1984)

Mean	Avg	3 674	3 564	2 785	1 857	1.280	0 834	0 591	0 598	0.888	1 315	2 211	2.968	**1.872**
flows	Low	0 675	0 608	0 537	0 482	0 323	0 226	0 280	0 224	0 197	0 283	0 412	0.412	**0.801**
(m^3s^{-1})	High	7 282	10 670	6.858	6 768	4 045	2 953	1 975	1 315	4 012	6 834	10 340	9 454	**2.809**
Peak flow (m^3s^{-1})		34 74	30 80	38 08	27 72	32.70	21 70	24 50	19.81	25 62	35 60	62 41	36 40	**62.41**
Runoff (mm)		32	29	25	18	11	7	5	5	8	12	19	26	**195**
Rainfall (mm)		51	43	46	42	50	50	50	55	61	56	64	57	**625**

Factors affecting flow regime: S EI
Station type: EW

1985 runoff is 84% of previous mean
rainfall 92%

037005 Colne at Lexden 1985

Measuring authority: AWA
First year: 1959
Grid reference: TL 962261
Level stn. (m OD) 8.23
Catchment area (sq km): 238.2
Max alt (m OD): 114

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	2.504	1.055	1.568	1.401	0.735	1.011	0.550	0.452	0.337	0.297	0.395	1.355	0.972
(m^3s^{-1})	Peak	12.40	2.60	4.59	9.04	2.11	3.91	3.56	0.66	0.64	0.59	0.66	10.39	12.40
Runoff (mm)		28	11	18	15	8	11	6	5	4	3	4	15	129
Rainfall (mm)		43	10	47	39	42	109	48	56	10	10	42	71	527

Monthly and yearly statistics for previous record (Oct 1959 to Dec 1984)

Mean	Avg.	1.952	1.841	1.685	1.191	0.822	0.444	0.340	0.320	0.383	0.658	1.171	1.556	1.027
flows	Low	0.460	0.346	0.380	0.358	0.229	0.148	0.100	0.095	0.179	0.221	0.288	0.352	0.382
(m^3s^{-1})	High	3.737	4.640	3.671	3.344	2.353	0.857	0.687	0.554	1.098	3.930	5.521	4.200	1.732
Peak flow (m^3s^{-1})		13.92	22.02	23.80	13.34	12.56	6.26	4.00	2.38	10.50	9.77	20.34	20.58	23.80
Runoff (mm)		22	19	19	13	9	5	4	4	4	7	13	17	138
Rainfall (mm)		47	35	44	42	46	44	44	48	54	53	60	54	571

Factors affecting flow regime: R EI
Station type: FL

1985 runoff is 95% of previous mean rainfall 92%

037010 Blackwater at Appleford Bridge 1985

Measuring authority: AWA
First year 1962
Grid reference: TL 845158
Level stn (m OD) 14.55
Catchment area (sq km): 247.3
Max alt (m OD): 127

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	2.563	1.148	1.699	1.227	0.727	1.583	0.688	0.552	0.451	0.384	0.466	1.494	1.082
(m^3s^{-1})	Peak	11.59	4.31	3.96	4.10	1.46	5.98	2.92	1.59	0.74	0.59	0.95	11.76	11.76
Runoff (mm)		28	11	18	13	8	17	7	6	5	4	5	16	138
Rainfall (mm)		43	12	47	33	49	116	47	52	10	13	44	71	537

Monthly and yearly statistics for previous record (Oct 1962 to Dec 1984)

Mean	Avg	1.979	2.003	1.959	1.461	1.062	0.691	0.508	0.456	0.515	0.693	1.163	1.690	1.178
flows	Low	0.532	0.460	0.479	0.479	0.341	0.356	0.182	0.161	0.215	0.296	0.325	0.379	0.822
(m^3s^{-1})	High	3.916	4.696	3.583	3.843	2.860	1.271	1.007	0.837	1.538	1.955	4.532	4.307	1.627
Peak flow (m^3s^{-1})		14.10	19.00	21.71	12.31	17.80	7.75	2.63	3.28	11.44	10.00	19.60	21.60	21.71
Runoff (mm)		21	20	2	15	12	7	5	5	5	8	12	18	150
Rainfall (mm)		46	36	47	44	49	49	43	48	54	48	61	52	577

Factors affecting flow regime: R EI
Station type: FL

1985 runoff is 92% of previous mean rainfall 93%

038001 Lee at Feildes Weir 1985

Measuring authority TWA
First year 1936
Grid reference: TL 390092
Level stn (m OD) 27.70
Catchment area (sq km): 1036.0
Max alt. (m OD): 229

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	7.655	4.414	5.359	3.830	3.183	5.194	2.034	1.669	1.088	1.340	1.535	4.350	3.471
(m^3s^{-1})	Peak	56.10	12.40	12.70	9.51	11.50	16.10	6.05	5.73	2.09	2.31	4.33	53.20	56.10
Runoff (mm)		20	10	14	10	8	13	5	4	3	3	4	11	106
Rainfall (mm)		46	22	40	26	47	117	44	51	14	19	49	90	565

Monthly and yearly statistics for previous record (Oct 1936 to Dec 1984—incomplete or missing months total 1.9 years)

Mean	Avg.	6.655	6.766	6.257	4.494	3.659	2.519	1.758	1.628	1.749	2.427	4.180	5.204	3.928
flows	Low	1.053	0.959	0.461	0.485	0.302	0.224	0.081	0.085	0.131	0.302	0.418	1.100	0.865
(m^3s^{-1})	High	17.200	17.790	29.440	12.000	12.260	7.618	4.993	3.841	7.063	10.420	13.870	13.210	7.181
Peak flow (m^3s^{-1})		37.21	33.98	36.79	30.73	20.16	15.96	9.71	13.17	49.56	31.50	48.50	41.04	49.56
Runoff (mm)		17	15	16	13	12	8	6	5	6	8	11	16	133
Rainfall (mm)		58	43	48	44	51	50	54	59	55	59	66	57	644

Factors affecting flow regime: PGEI
Station type: MIS

1985 runoff is 80% of previous mean rainfall 88%

038007 Canons Brook at Elizabeth Way 1985

Measuring authority: TWA
First year: 1950
Grid reference: TL 431104
Level stn. (m OD) 37.54
Catchment area (sq km): 21.4
Max alt (m OD): 110

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	0.294	0.154	0.234	0.156	0.127	0.253	0.120	0.107	0.059	0.050	0.093	0.253	0.158
(m^3s^{-1})	Peak	2.54	0.84	1.54	2.74	6.15	5.30	4.22	1.91	1.08	1.15	2.00	5.22	6.15
Runoff (mm)		37	17	29	19	16	31	15	13	7	6	11	32	234
Rainfall (mm)		40	19	32	29	53	94	43	43	11	17	45	87	513

Monthly and yearly statistics for previous record (Oct 1965 to Dec 1984—incomplete or missing months total 0.4 years)

Mean	Avg	0.306	0.299	0.262	0.202	0.193	0.130	0.108	0.117	0.127	0.160	0.225	0.268	0.199
flows	Low	0.059	0.062	0.054	0.074	0.073	0.067	0.060	0.034	0.056	0.043	0.057	0.092	0.095
(m^3s^{-1})	High	0.470	0.883	0.468	0.520	0.420	0.252	0.210	0.194	0.294	0.468	0.794	0.507	0.253
Peak flow (m^3s^{-1})		8.25	11.50	6.56	10.31	12.20	10.46	10.97	10.61	9.00	10.60	9.85	9.36	12.20
Runoff (mm)		38	34	33	24	24	16	14	15	15	20	27	33	294
Rainfall (mm)		52	38	49	42	55	52	47	53	60	54	61	56	619

Factors affecting flow regime:
Station type: FL

1985 runoff is 79% of previous mean rainfall 83%

038021 Turkey Brook at Albany Park 1985

Measuring authority: TWA
First year: 1971
Grid reference: TQ 359985
Level stn. (m OD) 16 60
Catchment area (sq km): 42.2
Max alt. (m OD): 127

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg.	0 417	0 148	0 219	0 158	0 065	0 223	0 032	0.043	0 012	0 016	0 048	0 350	0.144
(m^3s^{-1}):	Peak	3.89	0.64	1 65	3.82	0.79	3.08	0.39	0 49	0 05	0 18	0 76	6.06	6.06
Runoff (mm)		26	8	14	10	4	14	2	3	1	1	3	22	108
Rainfall (mm)		46	29	41	32	52	106	61	60	15	18	50	91	601

Monthly and yearly statistics for previous record (Sep 1971 to Dec 1984)

Mean	Avg	0.401	0.381	0 369	0 200	0 209	0 089	0 041	0 051	0 067	0 146	0 255	0 345	0.212
flows	Low	0 037	0 042	0.024	0 020	0 014	0.021	0 013	0 008	0 019	0 016	0 019	0 086	0.057
(m^3s^{-1})	High	0.760	0 988	0 811	0 626	0.626	0 240	0 087	0 171	0 228	0 524	1 158	0.704	0.339
Peak flow (m^3s^{-1})		10 51	9.74	5 14	7 72	20 69	15 30	2.38	2.76	7.55	8 14	12 75	10.51	20.69
Runoff (mm)		25	22	23	12	13	5	3	3	4	9	16	22	159
Rainfall (mm)		59	45	61	44	63	52	40	48	70	59	64	63	668

Factors affecting flow regime: G
Station type: FV

1985 runoff is 68% of previous mean
rainfall 90%

039002 Thames at Days Weir 1985

Measuring authority: TWA
First year: 1938
Grid reference: SU 568935
Level stn. (m OD) 46 02
Catchment area (sq km): 3444.7
Max alt. (m OD): 330

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg.	51.530	57.110	35 340	29 540	23 920	39.160	16.340	14.350	8.843	9.822	10.280	64 430	30.055
(m^3s^{-1}):	Peak													
Runoff (mm)		40	40	27	22	19	29	13	11	7	8	8	50	274
Rainfall (mm)		51	41	51	35	90	124	52	77	19	42	48	316	946

Monthly and yearly statistics for previous record (Oct 1938 to Dec 1984)

Mean	Avg	55.350	57 040	46 800	30 430	20.970	14 350	8 509	7 209	8.860	15 280	31 770	45.010	28 327
flows	Low	6 250	5 554	5.620	4 253	2 855	1.502	0 399	0.296	1.741	2 778	4 040	5 312	10.095
(m^3s^{-1})	High	133.600	120 800	163.200	85 070	61.140	41.560	48 820	18 690	38 630	74 570	128.100	128.700	51.292
Peak flow (m^3s^{-1})														
Runoff (mm)		43	40	36	23	16	11	7	6	7	12	24	35	259
Rainfall (mm)		67	48	54	46	60	53	53	68	62	63	72	68	714

Factors affecting flow regime: P EI
Station type: MIS

1985 runoff is 106% of previous mean
rainfall 132%

039005 Beverley Brook at Wimbledon Common 1985

Measuring authority: TWA
First year: 1935
Grid reference: TQ 216717
Level stn. (m OD) 10 97
Catchment area (sq km): 43.6
Max alt. (m OD): 117

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	0 665	0 532	0 569	0.500	0.638	0 886	0 699	0 740	0 520	0 406	0.482	0 885	0.627
(m^3s^{-1}):	Peak	7 47	4 45	4 33	3 55	7.72	7.19	10 79	7 25	1.33	3.99	4 07	14 04	14.04
Runoff (mm)		41	30	35	30	39	53	43	45	31	25	29	54	454
Rainfall (mm)		48	24	50	48	57	82	47	76	7	20	45	98	600

Monthly and yearly statistics for previous record (Mar 1935 to Dec 1984—incomplete or missing months total 25.7 years)

Mean	Avg.	0 690	0.599	0.549	0 521	0 440	0 460	0 403	0 430	0 512	0.520	0 605	0 655	0.532
flows	Low	0.280	0 244	0 290	0.257	0 214	0.157	0 211	0 189	0.224	0 160	0.274	0 247	0.291
(m^3s^{-1})	High	1 112	1.196	1.023	1.538	0 818	0 956	0 920	0.970	1.338	0.928	1.415	1.057	0.695
Peak flow (m^3s^{-1})		10 85	8 26	7.08	22.43	11 79	12.93	16 51	17 33	16 52	13 38	10.91	10.28	22.43
Runoff (mm)		42	34	34	31	27	27	25	26	30	32	36	40	385
Rainfall (mm)*		53	36	51	43	53	54	48	53	62	57	59	60	629

*(1955-1984)

Factors affecting flow regime: GE
Station type: FL

1985 runoff is 118% of previous mean
rainfall 95%

039014 Ver at Hansteads 1985

Measuring authority: TWA
First year: 1956
Grid reference: TL 151016
Level stn. (m OD) 61.34
Catchment area (sq km): 132.0
Max alt. (m OD): 243

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg.	0.416	0.432	0.412	0 365	0 313	0.354	0 230	0.228	0 127	0 090	0.100	0 199	0.272
(m^3s^{-1})	Peak	0.99	0 78	0 76	0.74	0.75	0.94	0 45	0.45	0.28	0 27	0 66	0.99	0.99
Runoff (mm)		8	8	8	7	6	7	5	5	3	2	2	4	65
Rainfall (mm)		55	25	40	33	58	113	53	65	21	23	56	107	649

Monthly and yearly statistics for previous record (Oct 1956 to Dec 1984)

Mean	Avg.	0 487	0.551	0.588	0 563	0.501	0.435	0 367	0 324	0 293	0.308	0.366	0 422	0.433
flows	Low	0.126	0 190	0.138	0.114	0 069	0 045	0 028	0 016	0.025	0 057	0 039	0 048	0.095
(m^3s^{-1})	High	0.981	1.336	1.312	1 254	1.028	0.857	0 652	0 564	0 660	0.668	0 791	0 977	0.752
Peak flow (m^3s^{-1})		1.77	1 91	1.88	1.90	2 07	1.65	1.44	1 13	2.34	1 35	2 31	2.64	2.64
Runoff (mm)		10	10	12	11	10	9	7	7	6	6	7	9	104
Rainfall (mm)		63	48	58	51	56	59	52	57	65	65	68	73	715

Factors affecting flow regime: G
Station type: CC

1985 runoff is 63% of previous mean
rainfall 91%

039016 Kennet at Theale 1985

Measuring authority: TWA
First year: 1961
Grid reference: SU 649708
Level stn. (m OD) 43.37
Catchment area (sq km): 1033.4
Max alt. (m OD): 297

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	14 680	16 520	13 960	13.050	10 460	9.846	7 099	7.196	6.154	5 584	5.297	11 630	10.123
(m^3s^{-1})	Peak	31.70	30 60	18.40	21 10	16.80	21 80	9.06	12 70	11 00	9.78	8 59	33.70	33.70
Runoff (mm)		38	39	36	33	27	25	18	19	15	14	13	30	308
Rainfall (mm)		63	42	55	42	72	116	58	91	29	37	51	127	783

Monthly and yearly statistics for previous record (Oct 1961 to Dec 1984)

Mean	Avg	12.870	14.380	14 880	12.740	10 470	8 643	6 484	5.706	5.377	6 112	7 968	10 210	9.629
flows	Low	4 144	4 401	4 190	3.429	2.739	2.041	1 620	1.377	2.787	3 897	3 943	5 159	4.056
(m^3s^{-1})	High	22.680	22.720	22 010	19 790	15 430	18 600	11 120	9 542	10.000	13 970	17 710	18.240	12.882
Peak flow (m^3s^{-1})		48 30	44 80	44 30	31 70	30.10	70 80	19 00	19 40	33 40	29 40	43 50	47 30	70.80
Runoff (mm)		33	34	39	32	27	22	17	15	13	16	20	26	294
Rainfall (mm)		74	50	71	50	64	60	46	65	72	66	77	81	776

Factors affecting flow regime: R G I
Station type: C

1985 runoff is 105% of previous mean rainfall 101%

039019 Lambourn at Shaw 1985

Measuring authority: TWA
First year: 1962
Grid reference: SU 470682
Level stn. (m OD) 75 59
Catchment area (sq km): 234.1
Max alt (m OD) 261

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	1 745	2.333	2 426	2 182	1.916	1 785	1 661	1.666	1 394	1 235	1 142	1 413	1.742
(m^3s^{-1})	Peak	2 43	2 81	2 76	2 45	2 28	2 61	1 93	2 00	2 03	1 94	1 39	2.20	2.81
Runoff (mm)		20	24	28	24	22	20	19	19	15	14	13	16	234
Rainfall (mm)		56	39	46	38	75	149	59	81	29	42	48	127	789

Monthly and yearly statistics for previous record (Oct 1962 to Dec 1984)

Mean	Avg	1 720	2 164	2 473	2.457	2 172	1 873	1 534	1 300	1 178	1 162	1 243	1 414	1.721
flows	Low	0 826	0 796	0 743	0 695	0 639	0 573	0 538	0 485	0 681	0 683	0 757	0 855	0.739
(m^3s^{-1})	High	3 410	3 618	3 583	3 550	2 979	2.764	2 359	2 048	1 699	1 921	2 392	2 551	2.151
Peak flow (m^3s^{-1})		3 93	4 20	4.39	4 08	3.76	4.34	3 06	3 54	3 75	3 17	5 02	3 72	5 02
Runoff (mm)		20	23	28	27	25	21	18	15	13	13	14	16	232
Rainfall (mm)		67	49	69	49	63	58	48	62	67	61	75	76	744

Factors affecting flow regime: R G
Station type: C

1985 runoff is 101% of previous mean rainfall 106%

039023 Wye at Hedsor 1985

Measuring authority: TWA
First year: 1964
Grid reference: SU 896867
Level stn. (m OD) 26.82
Catchment area (sq km) 137 3
Max alt (m OD). 244

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	0.888	0 988	1 055	1 095	1 046	1 076	0 981	1.035	0 903	0.823	0 761	0 888	0.962
(m^3s^{-1})	Peak	1 90	1 76	1 59	2 13	2 12	2 15	1 88	2 56	1 50	1 39	1 69	2 23	2.56
Runoff (mm)		17	17	21	21	20	20	19	20	17	16	14	17	221
Rainfall (mm)		58	39	42	49	69	123	57	77	23	25	62	116	740

Monthly and yearly statistics for previous record (Dec 1964 to Dec 1984)

Mean	Avg	0.948	1 044	1 150	1 191	1 173	1 130	1 024	0.970	0 877	0.832	0 828	0.869	1.003
flows	Low	0 419	0 484	0 488	0 470	0.432	0 380	0 370	0 314	0 381	0 395	0 375	0 340	0.442
(m^3s^{-1})	High	1.506	1 675	1.800	1 891	1 842	1.582	1 434	1.317	1 182	1 180	1 329	1.373	1.365
Peak flow (m^3s^{-1})		3 49	2 76	3 21	3.26	3 98	3 51	2 94	4 17	4.43	3 14	2 79	2 85	4.43
Runoff (mm)		18	19	22	22	23	21	20	19	17	16	16	17	230
Rainfall (mm)		71	51	63	52	66	62	55	65	72	65	71	78	771

Factors affecting flow regime: G I
Station type: C

1985 runoff is 96% of previous mean rainfall 96%

039026 Cherwell at Banbury 1985

Measuring authority: TWA
First year: 1966
Grid reference: SP 458411
Level stn. (m OD) 88 85
Catchment area (sq km). 199 4
Max alt (m OD): 222

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	1 635	1 784	1 142	0 949	0 611	1.709	0 191	0.173	0 050	0 176	0 269	2 810	0.958
(m^3s^{-1})	Peak	8 97	5 75	4 01	4 33	3 30	12.90	0 60	0.66	0 16	1 54	0 58	10 20	12.90
Runoff (mm)		22	22	15	12	8	22	3	2	1	2	3	38	151
Rainfall (mm)		43	37	42	37	73	130	52	62	18	52	56	98	700

Monthly and yearly statistics for previous record (Dec 1966 to Dec 1984)

Mean	Avg	2 436	2 373	2 156	0 973	0 867	0.449	0.240	0 360	0.241	0 455	0 837	1.822	1.097
flows	Low	0 074	0 049	0 031	0 012	0 010	0 008	0 004	0 009	0 016	0 013	0 018	0 056	0.259
(m^3s^{-1})	High	5 019	5 320	4 781	2 076	2.676	1 434	1 869	1 343	1.532	1 715	2 828	3.967	1.672
Peak flow (m^3s^{-1})		23 60	45 90	46.40	12 00	12 60	16 90	27 20	17 20	7.25	9 00	18 20	54 10	54.10
Runoff (mm)		33	29	29	13	12	6	3	5	3	6	11	24	174
Rainfall (mm)*		64	46	64	38	59	60	51	68	61	50	60	64	685

*(1970-1984)

Factors affecting flow regime: P
Station type CC

1985 runoff is 87% of previous mean rainfall 102%

039029 Tillingbourne at Shalford — 1985

Measuring authority: TWA
First year: 1968
Grid reference: TQ 000478
Level stn. (m OD): 31.70
Catchment area (sq km): 59.0
Max alt. (m OD): 294

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	0.621	0.595	0.563	0.595	0.524	0.498	0.451	0.505	0.415	0.417	0.444	0.609	**0.520**
(m^3s^{-1})	Peak	1.94	1.06	0.98	1.21	0.99	0.83	1.65	0.94	0.51	0.77	0.64	2.02	**2.02**
Runoff (mm)		28	24	26	26	24	22	20	23	18	19	19	28	**278**
Rainfall (mm)		74	34	61	65	65	84	73	120	13	28	58	129	**804**

Monthly and yearly statistics for previous record (Jun 1968 to Dec 1984)

Mean	Avg	0.668	0.641	0.647	0.606	0.578	0.524	0.473	0.467	0.497	0.517	0.574	0.625	**0.568**
flows	Low	0.457	0.423	0.398	0.398	0.376	0.353	0.340	0.326	0.357	0.362	0.354	0.392	**0.389**
(m^3s^{-1})	High	0.965	0.857	0.900	0.897	0.819	0.830	0.599	0.619	0.885	0.701	0.883	0.840	**0.686**
Peak flow (m^3s^{-1})		2.70	2.26	3.23	3.00	1.91	2.79	1.61	2.36	6.09	2.10	3.65	3.25	**6.09**
Runoff (mm)		30	27	29	27	26	23	21	21	22	23	25	28	**304**
Rainfall (mm)		84	50	72	51	66	58	48	58	84	78	86	85	**820**

Factors affecting flow regime: G I
Station type: C

1985 runoff is 91% of previous mean
rainfall 98%

039049 Silk Stream at Colindeep Lane — 1985

Measuring authority: TWA
First year: 1973
Grid reference: TQ 217895
Level stn. (m OD): 39.90
Catchment area (sq km): 29.0
Max alt. (m OD): 146

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	0.350	0.175	0.190	0.176	0.163	0.308	0.122	0.157	0.057	0.061	0.108	0.422	**0.191**
(m^3s^{-1})	Peak													
Runoff (mm)		32	15	18	16	15	28	11	15	5	6	10	39	**208**
Rainfall (mm)		48	23	36	31	53	103	57	68	11	20	44	100	**594**

Monthly and yearly statistics for previous record (Dec 1973 to Dec 1984—incomplete or missing months total 4.0 years)

Mean	Avg	0.354	0.304	0.392	0.260	0.282	0.228	0.122	0.115	0.163	0.328	0.377	0.337	**0.272**
flows	Low	0.200	0.101	0.185	0.030	0.035	0.105	0.047	0.053	0.057	0.114	0.130	0.143	**0.215**
(m^3s^{-1})	High	0.564	0.474	0.677	0.573	0.584	0.640	0.213	0.200	0.363	0.507	1.086	0.659	**0.314**
Peak flow (m^3s^{-1})														
Runoff (mm)		33	26	36	23	26	20	11	11	15	30	34	31	**296**
Rainfall (mm)		59	43	63	44	66	56	38	50	74	67	64	67	**691**

Factors affecting flow regime:
Station type: FV

1985 runoff is 70% of previous mean
rainfall 86%

039069 Mole at Kinnersley Manor — 1985

Measuring authority: TWA
First year: 1972
Grid reference: TQ 262462
Level stn. (m OD): 48.00
Catchment area (sq km): 142.0
Max alt. (m OD): 178

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	3.576	2.449	2.225	2.678	1.425	1.423	0.656	2.864	0.543	0.500	0.824	4.249	**1.947**
(m^3s^{-1})	Peak	30.90	17.00	11.70	17.00	13.90	13.00	3.38	24.30	2.30	2.93	4.29	41.90	**41.90**
Runoff (mm)		67	42	42	49	27	26	12	54	10	9	15	80	**433**
Rainfall (mm)		65	33	56	59	66	86	53	126	14	26	58	108	**750**

Monthly and yearly statistics for previous record (Dec 1972 to Dec 1984—incomplete or missing months total 1.5 years)

Mean	Avg	3.420	2.922	2.678	1.567	1.613	0.961	0.562	0.644	1.102	1.831	2.348	3.815	**1.953**
flows	Low	1.364	0.829	0.833	0.388	0.305	0.221	0.296	0.169	0.281	0.207	0.260	1.100	**0.950**
(m^3s^{-1})	High	5.576	5.883	4.668	3.666	3.552	1.874	1.709	1.763	5.419	6.062	5.668	5.474	**2.313**
Peak flow (m^3s^{-1})		41.30	46.50	22.30	47.00	32.90	23.30	14.90	29.80	40.70	45.90	56.10	68.50	**68.50**
Runoff (mm)		65	50	51	29	30	18	11	12	20	35	43	72	**434**
Rainfall (mm)		80	54	71	42	65	56	41	52	85	86	82	95	**809**

Factors affecting flow regime:
Station type: MIS

1985 runoff is 100% of previous mean
rainfall 93%

040004 Rother at Udiam — 1985

Measuring authority: SWA
First year: 1962
Grid reference: TQ 773245
Level stn. (m OD): 1.94
Catchment area (sq km): 206.0
Max alt. (m OD): 197

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	4.523	2.605	2.380	3.501	1.293	0.666	0.380	2.682	0.536	0.612	1.485	6.352	**2.251**
(m^3s^{-1})	Peak	39.99	9.12	8.94	15.40	6.81	4.37	0.68	12.41	1.22	4.05	9.21	41.34	**41.34**
Runoff (mm)		59	31	31	44	17	8	5	35	7	8	19	83	**347**
Rainfall (mm)		76	33	68	66	60	84	59	147	20	41	91	142	**887**

Monthly and yearly statistics for previous record (Oct 1962 to Dec 1984—incomplete or missing months total 1.8 years)

Mean	Avg	3.566	3.458	3.179	2.165	1.437	1.044	0.484	0.572	0.905	1.597	3.158	3.535	**2.084**
flows	Low	0.945	0.792	0.657	0.343	0.338	0.268	0.231	0.182	0.245	0.179	0.184	0.427	**0.756**
(m^3s^{-1})	High	6.957	10.370	6.927	4.533	2.817	4.157	0.834	1.823	3.952	5.708	12.360	9.547	**3.322**
Peak flow (m^3s^{-1})		37.96	44.74	49.84	25.43	24.09	23.08	12.74	14.36	33.98	29.17	50.43	51.82	**51.82**
Runoff (mm)		46	41	41	27	19	13	6	7	11	21	40	46	**319**
Rainfall (mm)		82	63	72	55	61	63	50	60	83	85	102	91	**867**

Factors affecting flow regime: S GE
Station type: VA

1985 runoff is 109% of previous mean
rainfall 102%

040009 Teise at Stone Bridge 1985

Measuring authority: SWA
First year: 1961
Grid reference: TQ 718399
Level stn. (m OD) 24 50
Catchment area (sq km): 136 2
Max alt (m OD): 201

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	2.076	1.506	1.371	2.038	0.728	0.573	0.805	0.997	0.702	0 600	0 784	2.965	1.262
(m^3s^{-1}):	Peak	18.67	7.19	6 04	15.41	3 50	6.84	1 22	6.32	0.84	2.25	3.88	19 61	19.61
Runoff (mm)		41	27	27	39	14	11	16	20	13	12	15	58	292
Rainfall (mm)		64	32	63	62	59	82	59	134	16	38	76	137	822

Monthly and yearly statistics for previous record (Oct 1961 to Dec 1984—incomplete or missing months total 0 2 years)

Mean	Avg	2.463	2.119	1 916	1 377	1 124	0 796	0 525	0 507	0.681	1 003	1 788	2.035	1.358
flows	Low	0.553	0 522	0.413	0.323	0 239	0 130	0 231	0.100	0.170	0 128	0.276	0 471	0.559
(m^3s^{-1})	High	5 757	6 241	3 928	2.781	2.306	2.628	0 977	1 021	2.359	3 173	6 344	5 334	2.101
Peak flow (m^3s^{-1})		41 63	48 27	34 43	24 78	38 95	29.22	13 87	10 61	23.88	29 17	47.12	48 29	48.29
Runoff (mm)		48	38	38	26	22	15	10	10	13	20	34	40	315
Rainfall (mm)		76	54	68	51	60	57	47	56	78	78	90	85	800

Factors affecting flow regime: PGE
Station type: B VA

1985 runoff is 93% of previous mean
rainfall 103%

040011 Great Stour at Horton 1985

Measuring authority: SWA
First year: 1964
Grid reference: TR 116554
Level stn. (m OD) 12 50
Catchment area (sq km): 345.0
Max alt (m OD): 205

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	5 432	3 391	3 530	3.535	2 342	2 223	1 459	1.965	1.314	1 284	1 620	5.516	2.801
(m^3s^{-1})	Peak	24 35	7 58	7.91	11 87	7 63	7.35	2 20	4 60	2 27	2 36	6 36	26 60	26 60
Runoff (mm)		42	24	27	27	18	17	11	15	10	10	12	43	256
Rainfall (mm)		68	20	57	47	48	91	48	98	13	23	75	125	713

Monthly and yearly statistics for previous record (Oct 1964 to Dec 1984—incomplete or missing months total 0.3 years)

Mean	Avg	5 137	4 904	4 481	3 493	7 886	2 079	1 805	1 738	1 943	2 619	3 694	4 654	3.279
flows	Low	2.293	2 367	1 812	1 654	1 324	1.079	0 965	0 877	1 119	1.085	1 328	1 687	1 808
(m^3s^{-1})	High	8 455	7 377	9 086	7.144	5.811	3 221	3 229	2.802	3.626	8 045	8 195	9 089	4.717
Peak flow (m^3s^{-1})		27.41	27 89	24.19	38.29	25 05	10.87	8 60	11 57	29.38	27 18	28.85	30 44	38.29
Runoff (mm)		40	35	35	26	22	16	14	13	15	20	28	36	300
Rainfall (mm)		71	52	59	48	54	50	56	55	77	76	85	76	759

Factors affecting flow regime: GE
Station type: B VA

1985 runoff is 85% of previous mean
rainfall 94%

041001 Nunningham Stream at Tilley Bridge 1985

Measuring authority: SWA
First year: 1950
Grid reference: TQ 662129
Level stn. (m OD) 3.80
Catchment area (sq km): 16.9
Max alt. (m OD): 137

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	0 377	0 206	0 160	0 174	0 077	0 045	0 028	0 089	0 026	0 022	0.096	0.513	0.151
(m^3s^{-1})	Peak	8 84	1 34	1 11	1 11	0 67	0 13	0 12	1 89	0 08	0 12	1 18	8.32	8 84
Runoff (mm)		60	30	25	27	12	7	4	14	4	3	15	81	282
Rainfall (mm)		67	30	63	49	56	79	55	127	21	35	90	127	799

Monthly and yearly statistics for previous record (Apr 1950 to Dec 1984—incomplete or missing months total 0.1 years)

Mean	Avg	0.412	0 345	0 246	0.147	0 083	0 055	0 033	0 039	0 056	0 128	0 308	0 371	0.185
flows	Low	0 076	0 094	0 054	0 034	0 023	0 012	0 011	0.008	0 009	0 013	0 019	0 033	0.053
(m^3s^{-1})	High	1 105	0 958	0 577	0 390	0 195	0 319	0.210	0 125	0 359	0 576	1 017	1 082	0.306
Peak flow (m^3s^{-1})		8.82	8 60	8.49	5 94	6 20	7.92	1 89	9 32	8 92	8 82	11 90	8 84	11.90
Runoff (mm)		65	50	39	23	13	8	5	6	9	20	47	59	345
Rainfall (mm)		82	60	59	49	54	56	56	71	79	88	99	96	849

Factors affecting flow regime: N
Station type: MIS

1985 runoff is 82% of previous mean
rainfall 94%

041005 Ouse at Gold Bridge 1985

Measuring authority: SWA
First year: 1960
Grid reference: TQ 429214
Level stn. (m OD) 11 43
Catchment area (sq km): 180 9
Max alt. (m OD): 203

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	4 045	3 047	2 376	3.716	1 391	1.197	0 711	2.458	0 833	0 706	1.212	4 465	2 180
(m^3s^{-1})	Peak	31 24	10 86	8.73	11 28	4.92	5 88	1.87	12.24	1.46	2 06	9 38	19 22	31.24
Runoff (mm)		60	41	35	53	21	17	11	36	12	10	17	66	380
Rainfall (mm)		70	35	62	65	52	92	62	151	17	38	80	110	834

Monthly and yearly statistics for previous record (Mar 1960 to Dec 1984—incomplete or missing months total 0.3 years)

Mean	Avg	4 181	3 545	3.099	2.257	1 764	1 061	0 617	0 683	1.087	1 717	3.368	3.606	2.242
flows	Low	1 142	1 240	0 793	0 611	0 451	0 283	0 217	0 157	0 230	0 275	0 384	0 846	0 934
(m^3s^{-1})	High	7 762	8 214	6.888	4.318	3 657	3.829	1 903	2 088	4 296	6 602	12.030	7 657	3.261
Peak flow (m^3s^{-1})		46 80	71 85	29 86	31 57	26 35	27.91	16 52	33.15	49 01	47 59	86 92	81.06	86.92
Runoff (mm)		62	48	46	32	26	15	9	10	16	25	48	53	391
Rainfall (mm)		85	57	68	58	64	61	50	63	87	88	103	93	877

Factors affecting flow regime: SRPGE
Station type: CBVA

1985 runoff is 97% of previous mean
rainfall 95%

041006 Uck at Isfield 1985

Measuring authority: SWA
First year: 1964

Grid reference: TQ 459190
Level stn (m OD): 11.28

Catchment area (sq km): 87.8
Max alt. (m OD): 221

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	2 525	1 344	1 229	1 594	0 661	0 477	0 304	1 506	0 394	0.329	0 745	3.693	1.233
(m^3s^{-1})	Peak	52 09	8 42	6.92	13 62	3 14	1 34	0 57	33.74	0 76	2 39	7 31	43 54	52.09
Runoff (mm)		77	37	37	47	20	14	9	46	12	10	22	113	**444**
Rainfall (mm)		70	33	65	59	48	77	67	155	16	39	80	136	**845**

Monthly and yearly statistics for previous record (Oct 1964 to Dec 1984)

Mean	Avg	2 097	1.844	1 393	1 040	0 791	0 534	0 340	0 308	0.563	0 858	1 634	2 017	1 115
flows	Low	0 579	0 627	0 413	0 324	0 252	0 170	0 142	0 106	0 170	0.160	0 211	0 342	0.480
(m^3s^{-1})	High	4.154	4 195	3 317	2.183	1 854	1 657	1 489	0 827	2 868	2 527	6 536	4 034	1.945
Peak flow (m^3s^{-1})		46.65	75 63	39.12	23 74	28 97	29 59	46 63	10 72	36 40	37.31	64 43	55 58	75.63
Runoff (mm)		64	51	43	31	24	16	10	9	17	26	48	62	**401**
Rainfall (mm)		82	61	64	48	60	65	49	59	81	81	93	89	**832**

Factors affecting flow regime: E
Station type: C

1985 runoff is 111% of previous mean
rainfall 102%

041019 Arun at Alfoldean 1985

Measuring authority: SWA
First year: 1970

Grid reference: TQ 117331
Level stn (m OD): 21 35

Catchment area (sq km): 139 0
Max alt (m OD): 294

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	3 948	2.149	1 677	2 271	0 780	0 770	0 321	1 618	0 332	0 266	0 566	4 371	1.589
(m^3s^{-1})	Peak	59 21	17 76	10 70	13 79	4 11	3 92	0 95	13 65	0 95	0 97	3 42	67 02	**67.02**
Runoff (mm)		76	37	32	42	15	14	6	31	6	5	11	84	**361**
Rainfall (mm)		68	31	60	57	52	75	54	132	15	29	66	109	**748**

Monthly and yearly statistics for previous record (May 1970 to Dec 1984—incomplete or missing months total 0.1 years)

Mean	Avg	3 418	2 555	2 411	1 526	1 233	0 756	0 291	0 320	0.741	1 410	2 550	3 137	1.693
flows	Low	0 664	0 689	0 469	0 277	0 223	0 131	0 138	0 078	0 161	0 150	0 167	0 492	0.589
(m^3s^{-1})	High	6 927	6 708	4 413	3 829	3 313	3 055	1 116	0 880	5.443	6 614	10 030	6 152	2.845
Peak flow (m^3s^{-1})		63 05	67 53	54 45	76 97	47 48	46 54	7 27	23.86	56 14	68 58	69 14	77 65	77.65
Runoff (mm)		66	45	46	28	24	14	6	6	14	27	48	60	**384**
Rainfall (mm)*		71	40	82	41	73	62	41	44	85	120	75	90	**824**

*(1980-1984)

Factors affecting flow regime: E
Station type: CC

1985 runoff is 94% of previous mean
rainfall 91%

041027 Rother at Princes Marsh 1985

Measuring authority: SWA
First year: 1973

Grid reference: SU 772270
Level stn (m OD): 56.40

Catchment area (sq km): 37.2
Max alt (m OD): 252

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	0 844	0 602	0 469	0 617	0 323	0 303	0 212	0 493	0 206	0.170	0 214	0 947	0 450
(m^3s^{-1})	Peak	7 50	2 15	1 81	2 75	1 51	1 17	0 55	4.55	0 38	0 37	0 74	11 14	11.14
Runoff (mm)		61	39	34	43	23	21	15	36	14	12	15	68	**381**
Rainfall (mm)		94	34	63	58	53	100	64	129	19	30	56	148	**848**

Monthly and yearly statistics for previous record (Nov 1972 to Dec 1984—incomplete or missing months total 0.2 years)

Mean	Avg	0 841	0 713	0 707	0 470	0 409	0 293	0 222	0 213	0 302	0 854	0 609	0 822	0.538
flows	Low	0 273	0 320	0.237	0 194	0 158	0 121	0.120	0 106	0 168	0 165	0 167	0 348	0.288
(m^3s^{-1})	High	1 485	1.409	1 220	0 684	0.642	0.471	0 300	0 326	0 949	4 305	1 855	1 300	0.798
Peak flow (m^3s^{-1})		15 63	13 72	10 71	6 83	7 20	4 68	2 17	2 54	12 97	68 03	16 60	22 19	68.03
Runoff (mm)		61	47	51	33	29	20	16	15	21	61	42	59	**456**
Rainfall (mm)*		93	60	84	39	69	53	51	55	94	89	87	105	**879**

*(1973-1984)

Factors affecting flow regime: GE
Station type: C

1985 runoff is 84% of previous mean
rainfall 96%

042003 Lymington at Brockenhurst Park 1985

Measuring authority: SWA
First year: 1960

Grid reference: SU 318019
Level stn. (m OD): 6 10

Catchment area (sq km): 98.9
Max alt (m OD): 114

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	1 631	1 415	1.225	1 093	0 416	0.364	0 121	0 708	0 255	0 198	0.381	1 772	0.798
(m^3s^{-1})	Peak	7.95	7 95	4.20	6 13	5 37	2 17	0 63	6 91	2 55	1.23	3 99	7.95	7.95
Runoff (mm)		44	35	33	29	11	10	3	19	7	5	10	48	**254**
Rainfall (mm)		81	46	62	40	46	68	52	115	30	28	53	125	**746**

Monthly and yearly statistics for previous record (Oct 1960 to Dec 1984—incomplete or missing months total 0.2 years)

Mean	Avg	1 825	1 699	1 457	0.987	0 845	0.475	0 242	0 258	0 473	1 054	1 406	1.601	1 024
flows	Low	0 330	0 439	0 327	0.168	0 128	0 042	0 013	0 014	0 084	0 128	0 198	0 541	0.407
(m^3s^{-1})	High	3 723	3 459	3 089	2 169	1 569	1.247	1.603	0 847	2 308	4 841	5 283	3 294	1.340
Peak flow (m^3s^{-1})		9.91	13.62	8 64	8.32	13 98	7 95	11 38	8 16	8.47	11 28	13 54	14 91	14.91
Runoff (mm)		49	42	39	26	23	12	7	7	12	29	37	43	**327**
Rainfall (mm)		88	59	69	50	65	58	42	60	80	86	94	92	**843**

Factors affecting flow regime: N
Station type: VN

1985 runoff is 78% of previous mean
rainfall 88%

042006 Meon at Mislingford 1985

Measuring authority: SWA
First year: 1958
Grid reference: SU 589141
Level stn. (m OD) 29.33
Catchment area (sq km): 72.8
Max alt. (m OD): 233

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg.	1 776	1 960	1.539	1 355	0.970	0 689	0.434	0 448	0.401	0 362	0 316	0.632	0.907
(m^3s^{-1})	Peak	2 49	2.45	1 98	1.69	1 17	0 81	0.59	0 80	0.48	0 49	0 41	1.58	2.49
Runoff (mm)		65	65	57	48	36	25	16	16	14	13	11	23	390
Rainfall (mm)		94	31	76	56	45	83	78	147	22	26	59	145	882

Monthly and yearly statistics for previous record (Oct 1958 to Dec 1984)

Mean	Avg	1 521	1.773	1.670	1.377	1 033	0 754	0.542	0 404	0.360	0 540	0 849	1.151	0.994
flows	Low	0 463	0 480	0 427	0 335	0.164	0 120	0 079	0 068	0 102	0 110	0 124	0 186	0.334
(m^3s^{-1})	High	3 470	3 300	2 820	1 988	1 738	1.220	0 827	0 657	0.882	2.309	4 126	3.917	1.807
Peak flow (m^3s^{-1})		3 51	4 02	3.26	2.83	2 06	1 50	1 18	1 08	0 96	1.50	2.83	3 77	4.02
Runoff (mm)		56	59	61	49	38	27	20	15	13	20	30	42	431
Rainfall (mm)		98	62	76	57	69	58	53	68	88	91	102	104	926

Factors affecting flow regime: G
Station type: FL

1985 runoff is 91% of previous mean
rainfall 93%

042008 Cheriton Stream at Sewards Bridge 1985

Measuring authority: SWA
First year: 1970
Grid reference: SU 574323
Level stn. (m OD) 55 80
Catchment area (sq km): 75.1
Max alt. (m OD): 234

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg.	0 882	0.966	0 811	0 762	0 629	0 517	0 460	0 462	0 430	0 382	0 358	0 556	0.601
(m^3s^{-1})	Peak	1 44	1 21	0.95	0 86	0 74	0 66	0 87	0 68	0 74	0 78	0 55	1 14	1.44
Runoff (mm)		31	31	29	26	22	18	16	16	15	14	12	20	252
Rainfall (mm)		89	39	63	53	49	88	73	132	20	32	58	156	852

Monthly and yearly statistics for previous record (Jul 1970 to Dec 1984—incomplete or missing months total 0.1 years)

Mean	Avg.	0 808	0 934	0 918	0 838	0 680	0 574	0 452	0 407	0 380	0 432	0.528	0 709	0.637
flows	Low	0 521	0 495	0 409	0 320	0 271	0 218	0 183	0 165	0 207	0 279	0 278	0 320	0.408
(m^3s^{-1})	High	1 293	1 443	1 410	1.065	0 857	0 959	0.583	0 708	0 560	0 672	0.980	1 278	0.761
Peak flow (m^3s^{-1})		1.69	1 83	1 68	1 39	1 26	2 02	1 25	1.28	0 77	0 91	1.23	1 85	2.02
Runoff (mm)		29	30	33	29	24	20	16	15	13	15	18	25	268
Rainfall (mm)		98	64	81	45	66	59	53	58	86	82	100	102	894

Factors affecting flow regime: N
Station type: C

1985 runoff is 94% of previous mean
rainfall 95%

042012 Anton at Fullerton 1985

Measuring authority: SWA
First year: 1973
Grid reference: SU 379393
Level stn. (m OD) 40 51
Catchment area (sq km): 185 0
Max alt. (m OD): 253

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	2 298	2 664	2.422	2 447	2.119	1 891	1 533	1.530	1 400	1 338	1 365	1 773	1.898
(m^3s^{-1})	Peak													
Runoff (mm)		33	35	35	34	31	26	22	22	20	19	19	26	323
Rainfall (mm)		72	40	59	44	67	81	43	106	29	36	50	142	769

Monthly and yearly statistics for previous record (Jan 1975 to Dec 1984)

Mean	Avg	2 228	2.480	2 573	2 486	2 136	1 854	1 519	1 357	1 286	1 393	1 520	1 838	1.886
flows	Low	1 301	1 215	1 047	0 948	0 830	0 691	0 626	0 548	0.688	1 015	1 003	1 417	1.010
(m^3s^{-1})	High	3 132	3 691	3 373	3 123	2 842	2 817	2 196	1 784	1 536	1 888	2 116	2 855	2.242
Peak flow (m^3s^{-1})														
Runoff (mm)		32	33	37	35	31	26	22	20	18	20	21	27	322
Rainfall (mm)		78	52	86	38	63	48	39	56	72	74	69	102	777

Factors affecting flow regime: N
Station type: C

1985 runoff is 100% of previous mean
rainfall 99%

043006 Nadder at Wilton Park 1985

Measuring authority: WWA
First year: 1966
Grid reference: SU 098308
Level stn. (m OD) 51.15
Catchment area (sq km): 220 6
Max alt. (m OD): 277

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	4 841	5.219	3.352	3 206	2 301	2 007	1 379	1 511	1 367	1 192	1 185	3 891	2.621
(m^3s^{-1})	Peak	14 80	9 44	4 91	5.71	3 11	3 44	2 13	3 83	4 97	2 40	1.52	18 99	18.99
Runoff (mm)		59	57	41	38	28	24	17	18	16	14	14	47	373
Rainfall (mm)		89	48	61	58	39	106	50	123	34	38	48	170	864

Monthly and yearly statistics for previous record (Jan 1966 to Dec 1984)

Mean	Avg.	4 687	5 185	4 558	3 201	2 481	1 980	1 524	1 352	1 380	1 853	2 617	3 853	2.878
flows	Low	1 011	1.263	1 339	1 048	0 993	0.839	0.684	0 595	0 823	0 829	0 906	1 219	1.535
(m^3s^{-1})	High	6 521	8 196	6 732	5 272	4 044	3 283	2 234	2 040	3 093	3 537	6 413	7 030	3.821
Peak flow (m^3s^{-1})		22 71	17 57	18 80	14 27	28 13	8 83	13 39	6 61	16 68	10 99	22 90	47 88	47.88
Runoff (mm)		57	57	55	38	30	23	19	16	16	22	31	47	412
Rainfall (mm)		97	75	82	49	73	62	51	68	84	83	91	102	917

Factors affecting flow regime: N
Station type: C

1985 runoff is 91% of previous mean
rainfall 94%

043007 Stour at Throop Mill 1985

Measuring authority WWA
First year 1972
Grid reference SZ 113958
Level stn (m OD) 4 35
Catchment area (sq km) 1073.0
Max alt (m OD) 277

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	23 350	24 440	14 820	15 960	7 332	5 516	3 783	4 991	4 464	3 723	3 928	22 280	**11.216**
(m^3s^{-1})	Peak	105 00	67 58	24 55	34 84	86 75	137 00	4 77	7 37	8 24	5 63	7 12	114 70	**105.00**
Runoff (mm)		58	55	37	39	18	13	9	12	11	9	9	56	**328**
Rainfall (mm)		85	49	61	51	33	77	48	113	34	36	52	159	**798**

Monthly and yearly statistics for previous record (Jan 1973 to Dec 1984)

Mean	Avg	23 690	25 060	21 910	13 360	9 799	6·855	4 597	4 349	5 436	9 749	13 670	22 840	**13 395**
flows	Low	4 319	6 826	7 548	4 483	3 157	2 231	1 614	1 358	2 413	2 716	2 823	6 386	**6.138**
(m^3s^{-1})	High	35 150	42 200	32 620	22 660	18 900	16 410	7 932	8 998	20 340	29 770	36 370	40.270	**17.377**
Peak flow (m^3s^{-1})		116 60	131 50	110.20	61 56	161 20	159.20	47 60	32 41	90 33	101 90	133 40	190 70	**190.70**
Runoff (mm)		59	57	55	32	24	17	11	11	13	24	33	57	**394**
Rainfall (mm)		87	69	83	37	65	57	49	58	88	82	82	108	**865**

Factors affecting flow regime. I
Station type CC

1985 runoff is 83% of previous mean
rainfall 92%

044002 Piddle at Baggs Mill 1985

Measuring authority WWA
First year 1963
Grid reference SY 913876
Level stn. (m OD) 2 06
Catchment area (sq km) 183 1
Max alt (m OD) 275

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	3 572	4 619	3 099	2 898	2 144	1 393	0 965	1 094	1 042	0 919	1 011	2 267	**2.085**
(m^3s^{-1})	Peak	7 02	7 24	4 26	4 84	2 58	1 83	1 22	2 37	1 82	1 06	1 69	7 15	**7.24**
Runoff (mm)		52	61	45	41	31	20	14	16	15	13	14	33	**357**
Rainfall (mm)		103	50	81	56	33	55	54	140	44	47	65	194	**922**

Monthly and yearly statistics for previous record (Oct 1963 to Dec 1984—incomplete or missing months total 0.3 years)

Mean	Avg	3 468	4 370	4.034	2 986	2 196	1 695	1 260	1 099	1 120	1 408	2 108	2 876	**2.374**
flows	Low	1 045	1 020	1.093	0 945	0 757	0 549	0 483	0 433	0 604	0 805	0 721	0 853	**1.327**
(m^3s^{-1})	High	5 520	6 616	6 202	4 782	3 376	2 907	1 755	1 526	2 300	2 581	5 047	5 504	**3.233**
Peak flow (m^3s^{-1})		11 87	9 18	9 37	6 48	8 11	9 23	4 79	4 50	8 18	9 29	9 20	8 44	**11.87**
Runoff (mm)		51	58	59	42	32	24	18	16	16	21	30	42	**409**
Rainfall (mm)		108	82	86	49	72	60	48	60	91	92	108	111	**967**

Factors affecting flow regime I
Station type FL

1985 runoff is 87% of previous mean
rainfall 95%

045003 Culm at Wood Mill 1985

Measuring authority SWWA
First year 1962
Grid reference ST 021058
Level stn. (m OD) 43 97
Catchment area (sq km) 226.1
Max alt (m OD) 293

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	5 165	4 571	4 099	5 362	2 265	1 903	1 580	2 111	1 737	1 801	1 818	9 110	**3 460**
(m^3s^{-1})	Peak	31 79	24 66	14 32	31 55	7 32	6 94	3 28	14 41	9 10	11 67	5 81	130 20	**130.20**
Runoff (mm)		61	49	49	61	27	22	9	25	20	21	21	108	**483**
Rainfall (mm)		74	45	86	76	56	64	53	112	38	47	54	173	**878**

Monthly and yearly statistics for previous record (Oct 1962 to Dec 1984)

Mean	Avg	6 697	6 535	5 182	3 181	2 904	2 051	1 788	1 618	1 957	2 952	4 444	5 970	**3.762**
flows	Low	1 930	2 251	2 392	1 318	1 085	0 803	0 650	0 569	0 971	0 971	1 287	2 479	**2 277**
(m^3s^{-1})	High	12 870	11 820	9 184	6 649	6 337	4 449	5.200	2 787	7 328	11 430	8 191	11 880	**4.840**
Peak flow (m^3s^{-1})		110 70	100.10	50 11	41 63	33 82	30 58	202 20	58 62	94 16	45 87	134 50	142 80	**202.20**
Runoff (mm)		79	70	61	36	34	24	21	19	27	35	51	71	**525**
Rainfall (mm)		112	84	88	55	72	63	58	65	83	86	99	111	**976**

Factors affecting flow regime PGEI
Station type VA

1985 runoff is 92% of previous mean
rainfall 90%

045005 Otter at Dotton 1985

Measuring authority SWWA
First year 1963
Grid reference SY 087885
Level stn (m OD) 14 52
Catchment area (sq km) 202 5
Max alt (m OD) 299

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	4 456	3 284	3 397	3.860	1·523	1.369	1 135	1 439	1 200	1 289	1 502	6 420	**2.573**
(m^3s^{-1})	Peak	43 45	17 24	15 52	26 95	4 01	4 87	2 81	6 39	4 26	8 41	5 22	76 36	**76.36**
Runoff (mm)		59	39	45	49	20	18	15	19	15	17	19	85	**401**
Rainfall (mm)		80	42	90	66	438	63	54	95	31	47	63	172	**1241**

Monthly and yearly statistics for previous record (Mar 1963 to Dec 1984)

Mean	Avg	5 760	5 401	4 414	2 683	2 495	1 827	1 570	1 406	1 685	2 641	3 764	5 077	**3.219**
flows	Low	1 502	1 308	1 908	1.150	0 941	0 716	0 587	0 542	0 980	1 051	1 257	1 758	**2.071**
(m^3s^{-1})	High	9.989	10 880	7 293	5 392	5 354	3 080	4 771	2 568	4 580	9 655	8 772	9 875	**3.946**
Peak flow (m^3s^{-1})		100 80	73 08	65 25	69 66	80 38	45 87	346 90	35 96	66 91	47 58	84 95	123 60	**346.90**
Runoff (mm)		76	65	58	34	33	23	21	19	22	35	48	67	**502**
Rainfall (mm)		120	90	87	52	76	63	57	61	81	89	99	113	**988**

Factors affecting flow regime SRPGEI
Station type VA

1985 runoff is 80% of previous mean
rainfall 126%

046002 Teign at Preston 1985

Measuring authority: SWWA
First year: 1956

Grid reference: SX 856746
Level stn. (m OD) 3 83

Catchment area (sq km): 380 0
Max alt. (m OD) 604

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	14 960	12.730	11 350	17 330	3.997	2 898	1 967	4 025	2 692	3 506	3 829	17 640	**8.077**
(m^3s^{-1}):	Peak	143 10	48 84	41 53	63 30	6 15	12.41	6.04	27 57	7 39	40 35	12 05	44 93	**143.10**
Runoff (mm)		105	81	80	118	28	20	14	28	18	25	26	124	**668**
Rainfall (mm)		130	60	144	102	55	75	56	141	34	73	102	202	**1174**

Monthly and yearly statistics for previous record (May 1958 to Dec 1984—incomplete or missing months total 0.1 years)

Mean	Avg	19 630	18 700	13 330	8 062	5 699	3 637	2 417	2 397	3 568	7 807	11 060	16 950	**9.400**
flows	Low	3.341	5 534	4 878	3 514	1 827	1 114	0.731	0 472	0 752	0 917	1 976	4 954	**5.212**
(m^3s^{-1})	High	36 080	38 750	29 940	21.960	17.270	9.522	7 334	5 549	14 080	41 570	28 960	37 820	**15.681**
Peak flow (m^3s^{-1})		172 70	198 20	146 60	122 50	86 08	81 35	98 87	72 64	312 80	190 00	153 60	248 40	**312.80**
Runoff (mm)		138	120	94	55	40	25	17	17	24	55	75	119	**780**
Rainfall (mm)		161	119	110	72	84	66	68	84	105	121	133	159	**1282**

Factors affecting flow regime: SRPGEI
Station type: VA

1985 runoff is 86% of previous mean rainfall 92%

046003 Dart at Austins Bridge 1985

Measuring authority: SWWA
First year: 1958

Grid reference: SX 751659
Level stn (m OD) 22 43

Catchment area (sq km) 247 6
Max alt (m OD) 604

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	16 670	12.620	10 250	19 200	3 766	4 331	3 513	12 590	6 378	7 934	6 601	22 010	**10 489**
(m^3s^{-1})	Peak	223 70	53 50	48 40	65 96	11 32	46 23	29 68	106 70	27 27	141 10	38 88	128 10	**223 70**
Runoff (mm)		180	123	111	201	41	45	38	136	67	86	69	238	**1336**
Rainfall (mm)		201	75	193	167	74	131	115	253	68	114	155	271	**1817**

Monthly and yearly statistics for previous record (Oct 1958 to Dec 1984)

Mean	Avg	20 060	17 470	14 240	9 523	7 499	4 969	3 751	4 333	5 915	10 820	14 860	19 440	**11.051**
flows	Low	5 435	4 270	5 731	3 566	2 220	1 456	0 996	0 713	0 905	1 229	5 048	8 650	**7.304**
(m^3s^{-1})	High	36 680	37 760	33 520	22 720	14 530	14 260	10 930	8 490	26 290	28 000	32 960	35 540	**15.592**
Peak flow (m^3s^{-1})		284 00	309 40	218 30	187 40	98 88	253 00	206 50	190 30	327 60	168 20	317 80	549 70	**549.70**
Runoff (mm)		217	172	154	100	81	52	41	47	62	117	156	210	**1409**
Rainfall (mm)		233	163	164	110	110	89	90	115	142	174	201	232	**1823**

Factors affecting flow regime: SRPGEI
Station type: VA

1985 runoff is 95% of previous mean rainfall 100%

047007 Yealm at Puslinch 1985

Measuring authority: SWWA
First year: 1962

Grid reference: SX 574511
Level stn (m OD) 5 49

Catchment area (sq km) 54 9
Max alt (m OD) 492

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	2 916	2 072	1 186	2 486	0 578	0 505	0 457	1 957	1 212	0 967	0 726	3 320	**1.532**
(m^3s^{-1})	Peak	24 48	8 96	5 31	9 71	1 20	4 96	5 45	21 49	8 20	14 30	7 17	21 49	**24.48**
Runoff (mm)		142	91	58	117	28	24	22	95	57	47	34	162	**879**
Rainfall (mm)		171	59	137	108	68	108	92	218	75	77	109	209	**1431**

Monthly and yearly statistics for previous record (Oct 1963 to Dec 1984—incomplete or missing months total 0.2 years)

Mean	Avg	3 006	2 921	2 182	1 261	1 033	0 807	0 570	0 584	0 804	1 415	2 202	2 900	**1.635**
flows	Low	0.563	1 318	0 659	0 572	0 327	0 171	0 095	0 057	0 183	0 121	0 373	1 171	**1.052**
(m^3s^{-1})	High	4 814	5 806	5 290	3 646	1 997	2 377	1 863	1 778	3 630	3 808	4 872	6 108	**2.210**
Peak flow (m^3s^{-1})		26 66	23 24	24 11	20 53	17 53	23 47	25 22	23 79	21 33	22 29	26 62	24 94	**26.66**
Runoff (mm)		147	130	106	60	50	38	28	28	38	69	104	141	**940**
Rainfall (mm)		169	133	128	74	98	87	80	96	119	130	160	171	**1445**

Factors affecting flow regime: PGEI
Station type: FLVA

1985 runoff is 94% of previous mean rainfall 99%

047008 Thrushel at Tinhay 1985

Measuring authority: SWWA
First year: 1969

Grid reference: SX 398856
Level stn. (m OD) 55 47

Catchment area (sq km) 112 7
Max alt (m OD) 299

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	3 835	2 238	1 435	4 038	0 483	0 458	0 216	2.809	1 112	1 502	1 567	5 538	**2.103**
(m^3s^{-1})	Peak	31 41	10 12	4 35	23 83	1 23	4 62	0.61	20 21	7 74	22 20	9 46	33 64	**33.64**
Runoff (mm)		91	48	34	93	11	11	5	67	26	36	36	132	**589**
Rainfall (mm)		97	37	93	101	55	88	49	162	47	61	82	163	**1035**

Monthly and yearly statistics for previous record (Nov 1969 to Dec 1984)

Mean	Avg	5 373	4 294	3 319	1 349	1 162	0 734	0 368	0 504	1 045	2 319	3 803	4 854	**2.421**
flows	Low	1 317	1.879	1 428	0 481	0 237	0 110	0 028	0 019	0 116	0 069	0 442	2 405	**1.640**
(m^3s^{-1})	High	9 701	8 826	7 477	2 240	4 209	2 491	1 095	1 386	6 671	6 878	7 195	8 122	**3.750**
Peak flow (m^3s^{-1})		53 32	61 78	61 46	27 72	19 16	57 13	9 89	27 33	75 12	55 86	57 07	124 40	**124.40**
Runoff (mm)		128	93	79	31	28	17	9	12	24	55	87	115	**678**
Rainfall (mm)*		156	104	103	53	70	71	65	81	103	109	136	141	**1192**

*(1970-1984)

Factors affecting flow regime: GE
Station type: CC

1985 runoff is 87% of previous mean rainfall 87%

048004 Warleggan at Trengoffe 1985

Measuring authority: SWWA
First year: 1969
Grid reference: SX 159674
Level stn (m OD) 70.26
Catchment area (sq km): 25.3
Max alt (m OD): 308

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	1 207	1 092	0 719	1 234	0 488	0 414	0 339	0 760	0 751	0.717	0 571	1.274	0.797
(m^3s^{-1})	Peak	3 83	1 90	2 03	2 79	0 93	2.05	0 60	2 73	1 89	2 54	1.68	3 25	3.83
Runoff (mm)		128	104	76	126	52	42	36	80	77	76	59	135	991
Rainfall (mm)		148	45	148	135	68	144	77	207	90	80	136	193	1471

Monthly and yearly statistics for previous record (Oct 1969 to Dec 1984—incomplete or missing months total 0.3 years)

Mean	Avg	1 497	1 462	1 072	0 673	0 514	0 408	0.313	0 321	0 428	0 655	1 001	1 381	0.808
flows	Low	0.744	0 751	0 586	0 403	0 288	0 208	0 151	0 118	0 177	0.208	0.233	0 907	0.624
(m^3s^{-1})	High	2 584	2 906	1 588	1 068	0 978	0 904	0 688	0 563	1 677	1 557	1 775	1 949	1.228
Peak flow (m^3s^{-1})		14 31	14 85	5 27	4 59	3 19	5.96	4 36	8.60	14 85	7 86	15 38	11 25	15.38
Runoff (mm)		158	141	113	69	54	42	33	34	44	69	103	146	1007
Rainfall (mm)*		192	128	128	62	82	80	84	95	135	138	168	180	1472

*(1970-1984)

Factors affecting flow regime: G
Station type: CC

1985 runoff is 98% of previous mean rainfall 100%

048005 Kenwyn at Truro 1985

Measuring authority: SWWA
First year: 1968
Grid reference: SW 820450
Level stn. (m OD) 7 16
Catchment area (sq km): 19.1
Max alt (m OD): 152

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	0 677	0 581	0 312	0 613	0 194	0 124	0.086	0 125	0 130	0 164	0 135	0 604	0.312
(m^3s^{-1})	Peak	2 10	1 34	1 44	2 16	0 81	0 65	0 20	1 31	0 59	0 89	0 97	2 47	2 47
Runoff (mm)		95	74	44	83	27	17	12	17	18	23	18	85	513
Rainfall (mm)		129	45	102	88	47	86	42	140	46	53	83	156	1017

Monthly and yearly statistics for previous record (Oct 1968 to Dec 1984)

Mean	Avg	0 822	0 811	0.581	0 296	0 198	0 142	0 088	0 083	0 112	0 253	0 470	0 751	0.382
flows	Low	0.283	0 333	0 228	0 162	0 124	0 070	0 043	0 026	0 037	0 034	0 046	0 436	0.264
(m^3s^{-1})	High	1 322	1 536	0 917	0 524	0 418	0 358	0.162	0 122	0 564	0 633	1 093	1 091	0.544
Peak flow (m^3s^{-1})		5 88	7 19	5 74	2 93	1 41	3 71	2 79	2 29	4 10	5 94	9 74	13 35	13.35
Runoff (mm)		115	104	81	40	28	19	12	12	15	36	64	105	632
Rainfall (mm)		149	109	98	51	68	61	55	71	94	107	132	143	1138

Factors affecting flow regime: G
Station type: CC

1985 runoff is 81% of previous mean rainfall 89%

048011 Fowey at Restormel two 1985

Measuring authority: SWWA
First year: 1972
Grid reference: SX 098624
Level stn. (m OD) 9 24
Catchment area (sq km): 169 1
Max alt. (m OD): 420

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	7 036	5 847	3 861	7 641	1 818	1 731	1 259	3 843	3.440	3.101	2 463	8 561	4.217
(m^3s^{-1})	Peak	23 20	11 72	8 03	20 80	4 77	10 15	2 26	13 69	9 14	12 71	5 70	18 36	23.20
Runoff (mm)		111	84	61	117	29	27	20	61	53	49	38	136	785
Rainfall (mm)		152	48	149	135	72	137	74	212	81	79	125	209	1473

Monthly and yearly statistics for previous record (Nov 1972 to Dec 1984)

Mean	Avg	9 120	9 190	6 642	3 576	2 593	1 754	1 132	1.146	2 322	5 027	6 258	9 833	4.866
flows	Low	3 901	4 685	2 727	1 808	1 048	0 693	0 563	0 343	0 673	0 617	0 921	5 796	3 647
(m^3s^{-1})	High	17 330	21.780	12 130	6 063	6 447	4 916	1 857	2 368	10 490	11 720	15 450	14 260	7.440
Peak flow (m^3s^{-1})		56 44	95 15	45 62	21 74	16 00	19 07	7 07	31 81	70 02	35 07	61 60	126 60	126.60
Runoff (mm)		144	133	105	55	41	27	18	18	36	80	96	156	908
Rainfall (mm)*		189	135	138	54	90	72	77	88	154	154	157	196	1504

*(1973-1984)

Factors affecting flow regime: SRPGEI
Station type: CC

1985 runoff is 86% of previous mean rainfall 98%

049001 Camel at Denby 1985

Measuring authority: SWWA
First year: 1964
Grid reference: SX 017682
Level stn (m OD) 4.61
Catchment area (sq km): 208.8
Max alt. (m OD): 420

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	9 175	7 434	4 873	9 395	2 724	2 287	1 649	5 067	4 647	4.362	3 064	9 054	5 311
(m^3s^{-1})	Peak	30 91	15 39	12 79	24 91	4.75	11 89	3 45	18 12	13 38	16 51	7 20	27 66	30.91
Runoff (mm)		118	86	63	117	35	28	21	65	58	56	38	116	800
Rainfall (mm)		143	42	127	120	58	118	73	179	78	74	94	166	1272

Monthly and yearly statistics for previous record (Sep 1964 to Dec 1984)

Mean	Avg	11 390	9 915	7 198	4 106	3 304	2 336	2 170	2 156	2 814	5 207	7 561	11 200	5 765
flows	Low	4 833	4 249	2 835	2 081	0 960	0 888	0 582	0 421	0 798	0 882	1 371	6 552	4.081
(m^3s^{-1})	High	19 600	20 940	16 420	7 608	8 491	5 463	7 323	5 947	11 920	16 640	17 990	19 110	8.165
Peak flow (m^3s^{-1})		67 71	80 21	94 75	35 42	23 98	40 02	40 59	45 14	125 80	92 14	79 29	227 90	227.90
Runoff (mm)		146	116	92	51	42	29	28	28	35	67	94	144	871
Rainfall (mm)		174	113	117	68	87	83	92	95	124	132	155	168	1408

Factors affecting flow regime: PGE
Station type: VA

1985 runoff is 92% of previous mean rainfall 90%

049002 Hayle at St Erth 1985

Measuring authority: SWWA
First year: 1968
Grid reference: SW 549342
Level stn. (m OD) 7.00
Catchment area (sq km): 48.9
Max alt. (m OD): 238

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	1.884	2.161	1.144	1 634	0 786	0 487	0.351	0 418	0 479	0 450	0 418	1 417	0.969
(m^3s^{-1}):	Peak	3.60	3.18	1.67	2.75	1.24	0.78	0 42	0 79	0 72	0 66	1.01	3.01	3.60
Runoff (mm)		103	107	63	87	43	26	19	23	25	25	22	78	620
Rainfall (mm)		137	69	119	91	50	95	51	153	55	54	84	163	1121

Monthly and yearly statistics for previous record (Oct 1957 to Dec 1984—incomplete or missing months total 9.3 years)

Mean	Avg	1.918	2.067	1.647	1 004	0 662	0.503	0 403	0 340	0 354	0.468	0 899	1 533	0.978
flows	Low	0 746	0.863	0 810	0 573	0 445	0.335	0.237	0.167	0.193	0 179	0 181	0 503	0.653
(m^3s^{-1})	High	2.849	3 426	2 582	1 641	1 464	0 859	1 063	0.743	1.067	1 140	2.297	2 515	1.258
Peak flow (m^3s^{-1})		6.20	6.73	5.83	3 07	2 36	1.72	1.99	2.27	1.88	2 32	3 81	6 31	6.73
Runoff (mm)		105	103	90	53	36	27	22	19	19	26	48	84	631
Rainfall (mm)		132	104	101	60	67	61	64	75	95	111	127	139	1136

Factors affecting flow regime: G
Station type: CC

1985 runoff is 98% of previous mean
rainfall 99%

050002 Torridge at Torrington 1985

Measuring authority: SWWA
First year: 1962
Grid reference: SS 500185
Level stn. (m OD) 13.95
Catchment area (sq km): 663 0
Max alt. (m OD): 621

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	26 700	17 330	9.408	25 310	3.422	5 476	2 721	19 690	8 102	10 780	7.504	40 420	14.739
(m^3s^{-1}):	Peak	213 40	104 90	48 36	164 40	17.51	65.73	10 98	106.90	40 45	142.60	32.22	407 70	407.70
Runoff (mm)		108	63	38	99	14	21	11	80	32	44	29	163	702
Rainfall (mm)		102	40	83	102	61	105	71	172	54	73	81	166	1110

Monthly and yearly statistics for previous record (Oct 1962 to Dec 1984)

Mean	Avg	30 110	24.900	18 720	9 832	8 691	4.826	4 487	4 305	7 046	14.810	26.210	31 100	15.386
flows	Low	5 018	4 695	5 792	3 082	1 594	1 092	0.443	0 253	0 954	0 668	3 798	10 270	8.968
(m^3s^{-1})	High	57.510	47 590	51 280	28 120	31 290	14 960	21 540	14 260	45 910	49 230	52 970	64 530	21.036
Peak flow (m^3s^{-1})		391.10	294.40	535 60	153 00	205 70	181.30	310 60	228 50	415 00	225.00	313.20	730 00	730.00
Runoff (mm)		122	92	76	38	35	19	18	17	28	60	102	126	732
Rainfall (mm)		130	91	97	62	76	71	72	80	101	108	137	130	1155

Factors affecting flow regime: SRPGEI
Station type: VA

1985 runoff is 96% of previous mean
rainfall 96%

052006 Yeo at Pen Mill 1985

Measuring authority: WWA
First year: 1962
Grid reference: ST 573162
Level stn (m OD) 23 85
Catchment area (sq km): 213 1
Max alt (m OD): 252

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	5 044	3 720	2 401	3 375	0 991	0 749	0 465	0 743	0 645	0.594	0 715	6 609	2.171
(m^3s^{-1}):	Peak	70 56	20 29	9.37	15 42	2 72	1 75	4.33	4.93	3 51	2 86	2.58	43 60	70.56
Runoff (mm)		63	42	30	41	12	9	6	9	8	7	9	83	321
Rainfall (mm)		85	45	66	61	42	58	61	113	33	46	53	186	849

Monthly and yearly statistics for previous record (Nov 1963 to Dec 1984)

Mean	Avg	5.265	4 622	3 795	1 825	1 633	1 110	0 661	0 674	0 970	2.135	3 456	4 478	2.544
flows	Low	0 485	1.168	0 909	0 532	0 356	0 229	0 193	0 166	0 316	0 372	0 455	1 079	1.093
(m^3s^{-1})	High	8 612	10 060	7 060	4 223	4 510	2 498	1.909	1.607	5.174	9 808	12.780	9 099	3.594
Peak flow (m^3s^{-1})		99 93	119 30	57 33	21 80	130 00	39 38	35 74	21 95	27.64	54 94	71 25	138 90	138.90
Runoff (mm)		66	53	48	22	21	14	8	8	12	27	42	56	377
Rainfall (mm)		98	72	79	45	72	61	54	63	80	80	91	98	893

Factors affecting flow regime: R
Station type: C VA

1985 runoff is 85% of previous mean
rainfall 95%

052007 Parrett at Chiselborough 1985

Measuring authority: WWA
First year: 1966
Grid reference: ST 461144
Level stn (m OD) 20 72
Catchment area (sq km): 74.8
Max alt. (m OD) 219

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	2.524	1 512	0 885	1 360	0 416	0 351	0.311	0 429	0 348	0 363	0.375	3.818	1.058
(m^3s^{-1}):	Peak	33.89	12 15	2.77	6 72	1 09	1.49	2.51	2.76	1.67	2.57	0.94	38 47	38.47
Runoff (mm)		90	49	32	47	15	12	11	15	12	13	13	137	446
Rainfall (mm)		94	44	66	61	52	63	71	103	32	51	57	218	912

Monthly and yearly statistics for previous record (Aug 1966 to Dec 1984)

Mean	Avg	2 399	1 972	1 646	0.755	0 764	0.528	0 362	0 332	0 448	1 073	1 286	2 011	1.129
flows	Low	0 258	0 593	0 523	0 285	0 206	0 130	0 106	0 090	0 145	0 186	0.218	0.523	0.564
(m^3s^{-1})	High	4 900	3 865	3 055	1.581	2.048	1 053	0 921	0 591	2.225	4 819	3 789	3 917	1.534
Peak flow (m^3s^{-1})		36 38	22 95	27 46	12.34	21.73	12.81	16.14	7.92	15 29	27.22	29.12	44 94	44.94
Runoff (mm)		86	64	59	26	27	18	13	12	16	38	45	72	476
Rainfall (mm)		108	77	84	40	75	65	52	65	82	88	87	101	924

Factors affecting flow regime: N
Station type: C

1985 runoff is 94% of previous mean
rainfall 99%

053004 Chew at Compton Dando 1985

Measuring authority: WWA
First year: 1958
Grid reference: ST 648647
Level stn. (m OD): 16.76
Catchment area (sq km): 129.5
Max alt. (m OD): 305

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg.	1.674	1.867	0.913	1.333	0.777	0.614	0.490	1.245	0.816	0.705	0.540	3.393	1.197
(m^3s^{-1})	Peak	11.03	15.07	3.73	3.22	1.06	1.32	0.88	4.65	2.02	2.63	1.62	59.01	59.01
Runoff (mm)		35	35	19	27	16	12	10	26	16	15	11	70	291
Rainfall (mm)		82	56	67	62	59	118	91	171	37	60	49	197	1049

Monthly and yearly statistics for previous record (Oct 1958 to Dec 1984—incomplete or missing months total 1.0 years)

Mean	Avg	1.871	1.710	1.423	0.972	0.841	0.602	0.461	0.427	0.555	0.812	1.216	1.708	1.047
flows	Low	0.444	0.557	0.410	0.469	0.333	0.287	0.243	0.195	0.232	0.300	0.264	0.622	0.540
(m^3s^{-1})	High	3.935	4.166	4.210	2.185	2.493	1.211	0.811	0.635	2.135	3.251	3.898	5.017	1.786
Peak flow (m^3s^{-1})		32.54	48.99	50.00	14.19	67.50	13.00	6.23	6.09	59.26	49.56	38.83	63.78	67.50
Runoff (mm)		39	32	29	19	17	12	10	9	11	17	24	35	255
Rainfall (mm)		101	70	80	60	73	69	69	87	98	89	105	113	1009

Factors affecting flow regime: SRPGEI
Station type: FL

1985 runoff is 114% of previous mean rainfall 104%

053007 Frome (Somerset) at Tellisford 1985

Measuring authority: WWA
First year: 1961
Grid reference: ST 805564
Level stn. (m OD): 35.05
Catchment area (sq km): 261.6
Max alt. (m OD): 305

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg.	6.789	6.434	3.062	4.816	1.652	2.228	1.416	3.543	1.882	1.799	1.532	9.053	3.684
(m^3s^{-1})	Peak	50.05	35.08	7.37	15.17	2.30	12.09	5.73	30.01	9.08	10.76	4.55	82.50	82.50
Runoff (mm)		70	60	31	48	17	22	15	36	19	18	15	93	443
Rainfall (mm)		85	55	57	62	54	121	75	118	43	53	51	164	938

Monthly and yearly statistics for previous record (Sep 1961 to Dec 1984)

Mean	Avg	6.747	6.347	5.706	3.534	2.820	1.890	1.447	1.425	1.756	2.694	4.568	6.447	3.772
flows	Low	1.684	2.072	1.938	1.510	0.843	0.518	0.329	0.290	0.649	0.612	0.962	2.795	2.334
(m^3s^{-1})	High	12.340	12.460	12.690	8.314	6.317	4.812	4.931	4.605	7.459	8.841	10.730	14.860	4.872
Peak flow (m^3s^{-1})		77.99	64.75	68.83	57.51	98.80	37.52	108.10	82.49	71.03	40.24	84.58	83.64	108.10
Runoff (mm)		69	59	58	35	29	19	15	15	17	28	45	66	455
Rainfall (mm)		95	70	88	59	78	65	63	78	92	79	97	103	987

Factors affecting flow regime: PGEI
Station type: FL

1985 runoff is 97% of previous mean rainfall 97%

053009 Wellow Brook at Wellow 1985

Measuring authority: WWA
First year: 1966
Grid reference: ST 741581
Level stn. (m OD): 43.74
Catchment area (sq km): 72.6
Max alt. (m OD): 220

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg.	2.216	2.263	1.214	1.768	0.675	0.718	0.599	1.311	0.779	0.851	0.511	3.286	1.349
(m^3s^{-1})	Peak	8.83	7.28	2.35	3.82	1.02	1.55	1.42	4.79	2.06	4.38	1.51	22.91	22.91
Runoff (mm)		82	75	45	63	25	26	22	48	28	31	18	121	585
Rainfall (mm)		93	57	65	64	53	120	93	139	39	66	56	191	1036

Monthly and yearly statistics for previous record (Jan 1966 to Dec 1984)

Mean	Avg	2.309	2.334	1.933	1.219	0.963	0.661	0.472	0.383	0.515	0.949	1.484	2.109	1.273
flows	Low	0.641	0.891	0.688	0.600	0.328	0.244	0.157	0.119	0.199	0.224	0.274	1.104	0.762
(m^3s^{-1})	High	4.128	4.429	3.708	2.111	1.907	1.306	1.680	0.727	2.008	2.770	2.916	3.542	1.568
Peak flow (m^3s^{-1})		17.67	22.36	13.71	11.08	23.16	6.84	29.54	3.79	15.07	7.88	14.59	24.43	29.54
Runoff (mm)		85	78	71	44	36	24	17	14	18	35	53	78	553
Rainfall (mm)		106	85	91	58	82	70	60	74	99	87	103	107	1022

Factors affecting flow regime: PGEI
Station type: FL

1985 runoff is 106% of previous mean rainfall 101%

053018 Avon at Bathford 1985

Measuring authority: WWA
First year: 1969
Grid reference: ST 786671
Level stn. (m OD): 18.00
Catchment area (sq km): 1552.0
Max alt. (m OD): 305

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	32.350	31.250	16.830	21.880	9.117	11.320	6.221	13.830	7.499	7.562	6.279	42.890	17.252
(m^3s^{-1})	Peak	152.70	129.10	40.95	46.75	17.24	39.11	12.28	44.63	17.35	22.48	10.19	249.70	249.70
Runoff (mm)		56	49	29	37	16	19	11	24	13	13	10	74	349
Rainfall (mm)		73	50	63	50	59	117	75	111	28	48	47	143	864

Monthly and yearly statistics for previous record (Dec 1969 to Dec 1984)

Mean	Avg	32.310	32.130	27.330	16.130	12.950	10.230	6.034	5.616	6.798	11.030	18.960	28.660	17.284
flows	Low	9.225	11.370	10.080	7.718	5.047	3.898	2.411	1.715	3.748	3.117	4.407	12.120	10.361
(m^3s^{-1})	High	51.280	64.340	54.220	22.690	31.020	30.110	9.955	10.600	25.450	28.180	35.060	48.270	22.133
Peak flow (m^3s^{-1})		166.90	226.50	193.30	119.60	227.00	165.60	54.93	64.71	191.90	88.98	163.10	300.50	300.50
Runoff (mm)		56	51	47	27	22	17	10	10	11	19	32	49	351
Rainfall (mm)*		88	61	79	46	63	65	51	63	84	69	83	89	841

*(1970-1984)

Factors affecting flow regime: RPGE
Station type: VA

1985 runoff is 99% of previous mean rainfall 103%

054006 Stour at Kidderminster 1985

Measuring authority STWA
First year 1953

Grid reference SO 829768
Level stn (m OD) 30.50

Catchment area (sq km) 324 0
Max alt (m OD) 316

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	3.231	3.273	2 927.	3.907	2 577	3 037	2 811	2.992	2.466	2.446	3 073	4 051	3.066
(m^3s^{-1})	Peak	12 34	9 45	5 89	16 81	7.96	11 14	7 90	10 27	5 04	12.97	12 50	14.19	16.81
Runoff (mm)		27	24	24	31	21	24	23	25	20	20	25	33	298
Rainfall (mm)		43	30	46	71	59	88	55	65	19	46	72	77	671

Monthly and yearly statistics for previous record (Oct 1953 to Dec 1984)

Mean	Avg	3 642	3 453	3 361	2 728	2 622	2 312	2 102	2 270	2 363	2.454	2.993	3 395	2.805
flows	Low	1 703	1 527	1.763	1 344	1 424	1.128	1 049	0 895	1 368	1.335	1.576	1 537	1 865
(m^3s^{-1})	High	7 409	6 537	6 244	4 844	6 468	3 438	4 404	3.801	4 058	5 713	6 386	7 062	4 136
Peak flow (m^3s^{-1})		67 96	20 96	81 55	16.90	20 94	18 52	19 20	34 50	19 40	22.96	16 44	45 46	81.55
Runoff (mm)		30	26	28	22	22	18	17	19	19	20	24	28	273
Rainfall (mm)		63	49	54	47	62	55	58	69	68	57	65	67	714

Factors affecting flow regime GEI
Station type VA

1985 runoff is 109% of previous mean rainfall 94%

054008 Teme at Tenbury 1985

Measuring authority STWA
First year 1956

Grid reference SO 597686
Level stn (m OD) 48.00

Catchment area (sq km) 1134 4
Max alt (m OD) 546

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	19 480	26 390	16 180	26 950	8 093	14 '60	5 366	7.927	5 023	10 100	12 480	32 050	15.350
(m^3s^{-1})	Peak	52 60	74 39	25.24	111 40	23 63	50 33	9 10	20 00	13 45	66 48	48 38	118 80	118.80
Runoff (mm)		46	56	38	62	19	32	13	19	11	24	29	76	424
Rainfall (mm)		48	50	59	75	73	111	60	90	19	71	78	99	833

Monthly and yearly statistics for previous record (Nov 1956 to Dec 1984)

Mean	Avg	28 180	25 190	21 980	13 730	11 130	6 078	4 137	4 064	6.446	11 680	16 790	24 840	14.482
flows	Low	6 281	8 009	7 433	4 692	2 571	1 558	1 008	0 745	1.085	1 347	3 085	5 565	7.278
(m^3s^{-1})	High	51 620	56 000	51 940	28 630	35 380	13 090	21 920	16 680	29 650	43 130	50 140	57 290	23.488
Peak flow (m^3s^{-1})		256 60	191 80	165 40	121 50	200 30	79 52	114 10	158 00	196 20	232.80	168 30	266 50	266.50
Runoff (mm)		67	54	52	31	26	14	10	10	15	28	38	59	403
Rainfall (mm)		86	65	70	57	66	57	57	72	86	72	83	92	863

Factors affecting flow regime N
Station type VA

1985 runoff is 105% of previous mean rainfall 97%

054012 Tern at Walcot 1985

Measuring authority STWA
First year 1960

Grid reference SJ 592123
Level stn (m OD) 44 60

Catchment area (sq km) 852 0
Max alt (m OD) 366

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	8 214	9 564	8 048	9 132	6 596	5 989	3.596	4 546	4 022	4 057	5 686	12 250	6.808
(m^3s^{-1})	Peak	22 35	18 24	15 38	16 99	17 40	12 91	5 29	10.56	13 05	15 69	12 67	43 93	43.93
Runoff (mm)		26	27	25	28	21	18	11	14	12	13	17	39	251
Rainfall (mm)		39	33	52	66	71	86	42	77	18	46	76	76	682

Monthly and yearly statistics for previous record (Oct 1960 to Dec 1984—incomplete or missing months total 0.1 years)

Mean	Avg	11 030	10 570	9 000	7 058	6 714	4 620	3 962	3 815	4 026	5 691	8 '47	'0 760	7.103
flows	Low	4 018	4 002	4 800	3 557	2 917	2 199	1 393	1 171	1 680	2 227	2 538	3 563	3.757
(m^3s^{-1})	High	20 320	22 280	17 810	12 320	22 390	9 069	14 060	6 655	9.490	16 920	21 830	24 950	10 266
Peak flow (m^3s^{-1})		45 31	45 98	40 53	40 73	40 35	27 00	48 71	38 53	32 '7	37 38	44 54	55 82	55.82
Runoff (mm)		35	30	28	21	21	14	12	12	12	18	25	34	263
Rainfall (mm)		60	48	54	49	65	55	54	62	68	59	71	68	713

Factors affecting flow regime G
Station type FV

1985 runoff is 96% of previous mean rainfall 96%

054019 Avon at Stareton 1985

Measuring authority STWA
First year 1962

Grid reference SP 333715
Level stn (m OD) 54 71

Catchment area (sq km) 347 0
Max alt (m OD) 210

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	3 716	2 972	2 572	2 243	1 165	2 772	0 920	0 978	0.628	0 826	1 577	7 141	2.292
(m^3s^{-1})	Peak	20 24	6 42	5 23	6 91	2 86	16 44	2 28	1.73	1 15	3 87	3 68	26 01	26 01
Runoff (mm)		29	2'	20	17	9	21	7	8	5	6	12	55	208
Rainfall (mm)		45	29	38	45	65	104	66	59	18	45	68	110	692

Monthly and yearly statistics for previous record (Oct 1962 to Dec 1984)

Mean	Avg	4 345	4 606	4.318	2 638	2 277	1 252	1 015	1 069	1 056	1 522	2 230	3 848	2.507
flows	Low	0 798	0.777	0 545	0 485	0 474	0 368	0 247	0 356	0 442	0 507	0 549	0 667	1 094
(m^3s^{-1})	High	8 143	12 890	8.577	5 558	6 149	3 202	5 379	3 332	2 858	5 274	5 311	10 400	3.588
Peak flow (m^3s^{-1})		38 23	59 60	55 89	42 67	39 05	27 34	71 36	26 08	16 59	32 89	34 11	56 28	71.36
Runoff (mm)		34	32	33	20	18	9	8	8	8	12	17	30	228
Rainfall (mm)		54	47	56	47	59	56	53	68	57	50	57	6'	665

Factors affecting flow regime S El
Station type C

1985 runoff is 91% of previous mean rainfall 104%

054020 Perry at Yeaton — 1985

Measuring authority: STWA
First year: 1963
Grid reference: SJ 434192
Level stn. (m OD): 61.27
Catchment area (sq km): 180.8
Max alt. (m OD): 356

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows (m^3s^{-1})	Avg	2.032	2.646	1.814	2.306	1.161	1.207	0.584	0.621	0.531	0.637	1.164	2.560	1.439
	Peak	4.99	4.91	2.86	4.88	2.61	3.24	0.90	0.81	0.71	1.48	2.82	8.50	8.50
Runoff (mm)		30	35	27	33	17	17	9	9	8	9	17	38	249
Rainfall (mm)		41	47	54	56	67	98	35	80	16	55	86	86	721

Monthly and yearly statistics for previous record (Oct 1963 to Dec 1984)

Mean flows (m^3s^{-1})	Avg	2.885	2.782	2.435	1.638	1.491	0.973	0.757	0.734	0.753	1.159	1.836	2.675	1.672
	Low	0.901	0.859	1.257	0.742	0.583	0.379	0.271	0.208	0.350	0.412	0.427	0.848	0.809
	High	4.777	6.507	4.265	3.041	4.232	2.046	2.735	1.416	1.785	3.308	3.103	6.244	2.335
Peak flow (m^3s^{-1})		11.50	11.29	11.12	8.57	10.41	8.49	7.87	5.49	7.32	7.25	10.02	12.57	12.57
Runoff (mm)		43	38	36	23	22	14	11	11	11	17	26	40	292
Rainfall (mm)		68	55	62	46	66	56	58	62	73	64	80	79	769

Factors affecting flow regime: N G
Station type: C

1985 runoff is 85% of previous mean
rainfall 94%

054022 Severn at Plynlimon flume — 1985

Measuring authority: IH
First year: 1953
Grid reference: SN 853872
Level stn. (m OD): 331.00
Catchment area (sq km): 8.7
Max alt. (m OD): 740

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows (m^3s^{-1})	Avg	0.363	0.337	0.438	0.663	0.157	0.638	0.458	0.935	0.444	0.348	0.417	1.065	0.522
	Peak	4.63	1.95	8.08	3.73	1.00	10.66	6.01	6.15	2.89	4.97	4.00	12.00	12.00
Runoff (mm)		112	94	135	197	48	190	141	288	132	107	124	328	1897
Rainfall (mm)		132	81	201	196	90	280	194	349	144	119	183	345	2314

Monthly and yearly statistics for previous record (Oct 1953 to Dec 1984—incomplete or missing months total 10.8 years)

Mean flows (m^3s^{-1})	Avg	0.763	0.592	0.580	0.310	0.248	0.200	0.274	0.367	0.525	0.618	0.788	0.736	0.500
	Low	0.382	0.136	0.171	0.046	0.048	0.045	0.054	0.037	0.073	0.059	0.268	0.174	0.334
	High	1.571	1.104	1.567	0.878	0.818	0.455	0.754	0.899	1.092	1.463	1.307	1.304	0.646
Peak flow (m^3s^{-1})		12.19	14.00	14.53	11.64	9.86	7.67	8.84	24.99	12.91	17.22	17.76	17.11	24.99
Runoff (mm)		235	166	178	92	76	60	84	113	156	190	235	227	1813
Rainfall (mm)		288	180	207	125	139	129	149	178	235	259	286	290	2485

Factors affecting flow regime: N
Station type: FL

1985 runoff is 105% of previous mean
rainfall 94%

054038 Tanat at Llanyblodwel — 1985

Measuring authority: STWA
First year: 1973
Grid reference: SJ 252225
Level stn. (m OD): 77.00
Catchment area (sq km): 229.0
Max alt. (m OD): 827

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows (m^3s^{-1})	Avg	5.204	5.910	5.210	9.686	2.346	4.660	1.894	7.608	2.814	4.007	5.789	13.640	5.731
	Peak	16.20	13.46	22.33	26.34	4.73	19.17	3.79	34.18	8.49	30.51	30.55	47.21	47.21
Runoff (mm)		61	62	61	110	27	53	22	89	32	47	66	159	789
Rainfall (mm)		62	63	96	100	81	124	68	167	31	85	126	169	1172

Monthly and yearly statistics for previous record (Jun 1973 to Dec 1984—incomplete or missing months total 0.4 years)

Mean flows (m^3s^{-1})	Avg	11.800	10.170	9.036	4.418	3.593	2.179	1.199	1.970	3.632	7.412	9.933	11.820	6.417
	Low	5.727	6.542	2.693	1.392	0.867	0.728	0.348	0.190	1.199	1.701	2.895	6.595	4.186
	High	15.860	19.900	17.800	9.079	10.250	4.588	1.930	7.605	9.885	15.020	16.920	21.410	7.510
Peak flow (m^3s^{-1})		91.77	64.77	85.77	39.85	31.27	56.87	15.68	118.20	69.56	59.64	64.64	87.99	118.20
Runoff (mm)		138	109	106	50	42	25	14	23	41	87	112	138	885
Rainfall (mm)*		132	93	107	60	80	69	58	78	120	113	137	147	1194

*(1972-1984)

Factors affecting flow regime: N
Station type: VA

1985 runoff is 89% of previous mean
rainfall 98%

055008 Wye at Cefn Brwyn — 1985

Measuring authority: IH
First year: 1951
Grid reference: SN 829838
Level stn. (m OD): 341.01
Catchment area (sq km): 10.4
Max alt. (m OD): 752

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows (m^3s^{-1})	Avg	0.492	0.349	0.564	0.841	0.228	0.954	0.631	1.158	0.595	0.43*	0.491	1.421	0.679
	Peak	7.31	2.91	11.13	5.09	1.58	15.86	10.29	7.83	5.06	6.11	5.26	18.9*	18.91
Runoff (mm)		127	81	145	210	59	238	163	298	148	111	122	366	2067
Rainfall (mm)		130	101	189	200	105	306	205	335	144	121	177	372	2385

Monthly and yearly statistics for previous record (Aug 1951 to Dec 1984—incomplete or missing months total 2.5 years)

Mean flows (m^3s^{-1})	Avg	0.962	0.767	0.648	0.510	0.405	0.333	0.430	0.553	0.685	0.806	1.040	1.098	0.688
	Low	0.519	0.158	0.206	0.064	0.054	0.074	0.053	0.036	0.050	0.092	0.376	0.198	0.447
	High	1.870	1.486	1.735	1.312	1.144	0.844	1.264	1.478	1.478*	2.031	1.600	2.655	0.994
Peak flow (m^3s^{-1})		23.47	19.20	16.97	19.12	17.89	25.49	19.1*	48.87	16.93	24.32	29.15	32.00	48.87
Runoff (mm)		248	180	167	127	104	83	11*	142	171	208	259	283	2082
Rainfall (mm)		262	172	190	145	136	137	160	190	212	241	271	301	2417

Factors affecting flow regime: N
Station type: CC

1985 runoff is 99% of previous mean
rainfall 99%

055013 Arrow at Titley Mill — 1985

Measuring authority: WELS
First year: 1966

Grid reference: SO 328585
Level stn. (m OD) 129.02

Catchment area (sq km): 126.4
Max alt. (m OD) 542

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg.	2.909	3.609	1.883	4.111	0.990	1.791	0.763	1.546	1.367	2.369	2.176	4.494	2.334
(m^3s^{-1})	Peak	11.90	15.00	5.27	16.35	1.68	5.25	1.34	5.43	3.24	31.72	12.81	22.25	31.72
Runoff (mm)		62	69	40	84	21	37	16	33	28	50	45	95	580
Rainfall (mm)		67	61	70	84	68	109	67	124	29	103	98	129	1009

Monthly and yearly statistics for previous record (Oct 1966 to Dec 1984)

Mean	Avg	4.850	4.269	3.726	1.987	1.900	1.143	0.757	0.580	0.883	2.007	3.066	4.294	2.449
flows	Low	1.886	1.936	1.629	0.962	0.526	0.332	0.211	0.154	0.277	0.294	0.662	1.694	1.309
(m^3s^{-1})	High	9.003	7.677	8.933	4.176	5.001	2.559	3.842	1.182	2.459	6.916	6.261	7.568	3.418
Peak flow (m^3s^{-1})		63.98	39.94	57.85	19.41	32.49	13.09	30.68	9.59	18.85	36.45	28.98	63.34	63.98
Runoff (mm)		103	82	79	41	40	23	16	12	18	43	63	91	611
Rainfall (mm)		111	83	89	54	78	64	50	74	101	89	99	110	1002

Factors affecting flow regime: P
Station type: VA

1985 runoff is 95% of previous mean rainfall 101%

055014 Lugg at Byton — 1985

Measuring authority: WELS
First year: 1966

Grid reference: SO 364647
Level stn. (m OD) 124.07

Catchment area (sq km): 203.3
Max alt. (m OD): 660

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg.	4.628	5.840	3.487	6.511	2.022	4.113	1.775	1.997	1.727	2.967	2.896	6.663	3.719
(m^3s^{-1})	Peak	10.89	11.52	5.15	18.82	2.58	14.18	3.02	3.43	2.69	16.21	7.69	13.81	18.82
Runoff (mm)		61	69	46	83	27	52	23	26	22	39	37	88	574
Rainfall (mm)		64	62	65	93	71	133	66	107	27	69	98	114	969

Monthly and yearly statistics for previous record (Oct 1966 to Dec 1984)

Mean	Avg	7.547	7.079	6.130	3.757	3.354	2.008	1.414	1.114	1.330	2.795	4.471	6.431	3.941
flows	Low	2.991	2.630	2.947	2.016	1.186	0.772	0.557	0.414	0.678	0.657	1.219	2.978	2.321
(m^3s^{-1})	High	11.940	12.870	13.980	7.106	7.994	3.989	5.253	1.992	3.079	7.967	8.774	10.350	4.954
Peak flow (m^3s^{-1})		54.27	37.53	33.24	17.81	45.56	10.72	26.16	9.52	12.46	28.51	27.22	37.49	54.27
Runoff (mm)		99	85	81	48	44	26	19	15	17	37	57	85	612
Rainfall (mm)		119	87	93	59	83	62	54	74	101	89	100	113	1034

Factors affecting flow regime:
Station type: FVVA

1985 runoff is 94% of previous mean rainfall 94%

055018 Frome at Yarkhill — 1985

Measuring authority: WELS
First year: 1968

Grid reference: SO 615428
Level stn. (m OD) 55.38

Catchment area (sq km): 144.0
Max alt. (m OD): 244

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	2.448	2.954	1.483	2.253	0.839	1.181	0.525	0.393	0.230	0.240	0.381	1.997	1.244
(m^3s^{-1})	Peak	11.64	13.37	2.41	13.04	2.08	5.13	0.87	1.27	0.41	0.77	2.66	11.51	13.37
Runoff (mm)		46	50	28	41	16	21	10	7	4	4	7	37	270
Rainfall (mm)		57	49	51	50	76	105	55	76	16	39	57	87	718

Monthly and yearly statistics for previous record (Oct 1968 to Dec 1984—incomplete or missing months total 0.1 years)

Mean	Avg	2.655	2.583	2.385	1.119	1.162	0.630	0.352	0.321	0.338	0.519	0.981	2.015	1.250
flows	Low	0.214	0.389	0.560	0.359	0.274	0.146	0.091	0.063	0.174	0.155	0.171	0.210	0.672
(m^3s^{-1})	High	4.668	5.456	5.176	2.298	3.972	1.349	0.630	0.538	0.970	2.405	2.266	3.594	1.628
Peak flow (m^3s^{-1})		23.84	24.99	24.28	14.74	25.89	16.99	5.96	6.04	15.68	10.34	18.51	25.14	25.89
Runoff (mm)		49	44	44	20	22	11	7	6	6	10	18	37	274
Rainfall (mm)		75	54	66	43	63	55	44	66	69	54	64	72	725

Factors affecting flow regime: E
Station type: VA

1985 runoff is 99% of previous mean rainfall 99%

055023 Wye at Redbrook — 1985

Measuring authority: WELS
First year: 1969

Grid reference: SO 528110
Level stn. (m OD) 9.20

Catchment area (sq km): 4010.0
Max alt. (m OD): 752

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	91 950	118 000	63 410	133 100	37 670	76 180	35 620	83 680	42 710	61 670	53 640	170 000	80 636
(m^3s^{-1})	Peak	251.20	378.50	126.00	322.90	64.70	248.10	83.23	237.40	97.66	386.00	224.50	459.60	459.60
Runoff (mm)		61	71	42	86	25	49	24	56	28	41	35	114	632
Rainfall (mm)		70	59	71	80	80	132	69	124	34	73	86	214	1092

Monthly and yearly statistics for previous record (Oct 1969 to Dec 1984)

Mean	Avg	135 000	126 500	104 000	58 660	44 400	30.840	20.050	22 610	30 950	54 650	91.530	120 700	69.748
flows	Low	56 630	46.880	37 490	25 450	16.470	10.960	7 433	5.178	14 870	12 230	33.900	46 890	45 669
(m^3s^{-1})	High	214 400	234 000	245.500	100 200	125 000	63 490	30.850	40 110	74 490	133.800	177.500	204.100	91.002
Peak flow (m^3s^{-1})		478 30	441 00	671.30	226 50	358 70	178.00	53.37	73.66	261 30	353 90	498.80	501 70	671.30
Runoff (mm)		107	59	84	35	40	22	12	11	28	50	68	88	602
Rainfall (mm)		121	84	91	56	74	63	51	77	98	83	108	114	1020

Factors affecting flow regime: S P E
Station type: VA

1985 runoff is 105% of previous mean rainfall 107%

056013 Yscir at Pontaryscir 1985

Measuring authority: WELS
First year: 1972

Grid reference: SO 003304
Level stn. (m OD): 161.18

Catchment area (sq km): 62.8
Max. alt. (m OD): 474

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	1.742	1.767	1.307	3.211	0.623	1.281	0.651	2.964	1.272	2.578	1.739	4.514	1.971
(m^3s^{-1})	Peak	9.61	9.83	9.17	13.54	2.98	10.99	3.06	10.76	6.20	85.01	15.10	23.12	85.01
Runoff (mm)		74	68	56	133	27	53	28	126	53	110	72	193	991
Rainfall (mm)		98	51	91	124	73	140	90	205	53	146	126	247	1444

Monthly and yearly statistics for previous record (May 1972 to Dec 1984—incomplete or missing months total 0.2 years)

Mean	Avg	3.486	2.817	2.613	1.179	1.054	0.668	0.430	0.528	1.198	2.050	3.117	3.530	1.886
flows	Low	1.146	1.868	0.852	0.431	0.269	0.214	0.150	0.104	0.283	0.214	1.475	2.196	1.286
(m^3s^{-1})	High	5.795	4.959	6.303	2.357	3.041	1.788	1.117	1.250	3.947	4.182	4.924	6.324	2.465
Peak flow (m^3s^{-1})		36.98	31.78	40.55	12.19	14.81	74.33	11.06	28.81	21.44	29.06	30.35	59.93	74.33
Runoff (mm)		149	109	111	49	45	28	18	23	49	87	129	151	948
Rainfall (mm)*		167	111	138	61	86	68	70	92	156	137	162	179	1427

*(1973-1984)

Factors affecting flow regime: N
Station type: C

1985 runoff is 105% of previous mean
rainfall 101%

057008 Rhymney at Llanederyn 1985

Measuring authority: WELS
First year: 1972

Grid reference: ST 225821
Level stn. (m OD): 11.78

Catchment area (sq km): 178.7
Max. alt. (m OD): 617

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	6.157	5.840	3.824	9.696	2.186	3.254	2.370	10.450	4.530	6.183	3.443	13.470	5.950
(m^3s^{-1})	Peak	33.11	22.69	40.43	41.55	7.59	14.36	7.56	87.41	20.02	73.26	22.69	83.94	87.41
Runoff (mm)		92	79	57	141	33	47	36	157	66	93	50	202	1052
Rainfall (mm)		112	60	107	124	79	140	102	241	73	112	89	252	1491

Monthly and yearly statistics for previous record (Jan 1973 to Dec 1984)

Mean	Avg	9.306	8.064	7.394	3.452	2.985	1.849	1.340	0.784	3.749	5.999	7.973	9.034	5.234
flows	Low	3.313	3.199	2.889	1.754	1.276	0.873	0.602	0.571	0.914	0.748	2.355	3.218	2.903
(m^3s^{-1})	High	17.200	15.620	20.960	5.105	8.340	4.604	2.332	3.812	11.500	13.700	15.430	15.730	7.153
Peak flow (m^3s^{-1})		100.10	72.22	105.80	32.30	26.05	32.92	27.39	79.27	101.60	118.50	106.50	147.30	147.30
Runoff (mm)		139	110	111	50	45	27	20	27	54	90	116	135	924
Rainfall (mm)		163	116	128	56	83	61	60	90	161	138	153	162	1371

Factors affecting flow regime: PGE
Station type: FVVA

1985 runoff is 114% of previous mean
rainfall 109%

058006 Mellte at Pontneathvaughan 1985

Measuring authority: WELS
First year: 1971

Grid reference: SN 915082
Level stn. (m OD): 29.10

Catchment area (sq km): 65.8
Max. alt. (m OD): 734

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg.	2.724	2.112	2.279	5.095	0.871	2.385	1.801	6.802	2.59	3.629	2.063	7.290	3.303
(m^3s^{-1})	Peak	29.92	11.03	37.81	29.81	7.87	26.00	12.38	51.87	19.01	77.20	24.83	46.70	77.20
Runoff (mm)		111	78	93	201	35	94	73	277	102	148	81	297	1589
Rainfall (mm)		156	55	185	209	110	190	146	398	116	184	148	395	2292

Monthly and yearly statistics for previous record (Oct 1971 to Dec 1984—incomplete or missing months total 0.3 years)

Mean	Avg.	5.063	3.878	3.761	1.778	1.617	1.036	0.875	1.289	2.555	3.314	4.821	5.059	2.917
flows	Low	1.932	2.073	1.378	0.497	0.383	0.322	0.242	0.207	0.562	0.548	2.549	2.641	1.985
(m^3s^{-1})	High	8.274	7.231	10.670	3.812	3.233	3.559	2.608	3.357	6.876	6.305	7.875	8.739	3.814
Peak flow (m^3s^{-1})		82.30	66.12	72.93	39.02	21.45	32.54	39.14	58.52	81.01	96.78	79.82	127.60	127.60
Runoff (mm)		206	144	153	70	66	41	36	52	101	135	190	206	1399
Rainfall (mm)		253	162	188	89	117	101	89	135	195	199	243	244	2015

Factors affecting flow regime: S P
Station type: FVVA

1985 runoff is 114% of previous mean
rainfall 114%

059001 Tawe at Ynys Tanglws 1985

Measuring authority: WELS
First year: 1957

Grid reference: SS 685998
Level stn. (m OD): 9.31

Catchment area (sq km): 227.7
Max. alt. (m OD): 802

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	12.280	9.159	9.617	7.020	5.018	10.550	9.292	27.090	11.680	18.060	13.890	31.500	14.596
(m^3s^{-1})	Peak	108.90	46.77	99.63	134.60	37.82	91.64	72.55	208.70	83.04	289.90	150.00	187.30	289.90
Runoff (mm)		144	97	113	194	59	120	109	319	133	212	158	370	2030
Rainfall (mm)		148	70	157	173	90	187	151	392	119	170	146	335	2138

Monthly and yearly statistics for previous record (Oct 1957 to Dec 1984—incomplete or missing months total 0.7 years)

Mean	Avg	18.990	13.900	11.400	8.193	7.346	4.877	4.771	6.761	10.200	13.670	16.820	18.030	11.240
flows	Low	1.479	2.445	3.175	2.145	1.603	1.354	1.032	1.280	0.574	2.587	8.358	3.931	7.613
(m^3s^{-1})	High	36.580	29.040	41.630	15.370	17.980	15.960	9.480	14.200	26.290	43.430	33.320	43.650	15.158
Peak flow (m^3s^{-1})		275.10	322.80	270.20	188.60	147.50	214.10	131.90	261.80	286.00	314.30	290.60	461.30	461.30
Runoff (mm)		223	149	134	93	86	56	56	80	116	161	191	212	1558
Rainfall (mm)		208	138	138	107	116	106	109	133	177	194	207	217	1850

Factors affecting flow regime: GEI
Station type: VA

1985 runoff is 130% of previous mean
rainfall 116%

060003 Taf at Clog-y-fran 1985

Measuring authority: WELS
First year: 1965
Grid reference: SN 238160
Level stn (m OD): 7.01
Catchment area (sq km): 217.3
Max alt (m OD): 385

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	10.010	8.476	6.961	10.990	2.113	2.716	2.576	10.760	5.890	6.236	7.744	16.450	7.577
(m^3s^{-1})	Peak	43.46	27.86	22.23	31.18	4.23	15.05	8.90	57.36	28.46	40.93	35.99	59.79	**59.79**
Runoff (mm)		123	94	86	131	26	32	32	133	70	77	92	203	**1100**
Rainfall (mm)		118	52	134	107	64	129	101	221	65	96	148	227	**1462**

Monthly and yearly statistics for previous record (Oct 1965 to Dec 1984—incomplete or missing months total 0.8 years)

Mean	Avg	13.130	11.280	8.506	5.215	4.053	2.649	1.676	2.061	3.802	9.641	11.640	13.910	**7.283**
flows	Low	4.835	5.454	3.796	2.179	1.207	0.781	0.375	0.363	0.983	1.018	3.757	9.027	**4.672**
(m^3s^{-1})	High	25.900	27.200	26.610	11.800	8.412	8.821	5.330	4.785	15.340	22.310	22.690	25.520	**9.662**
Peak flow (m^3s^{-1})		73.43	73.97	85.73	60.03	31.15	45.11	19.86	32.90	58.02	84.98	80.82	65.55	**85.73**
Runoff (mm)		162	126	105	62	50	32	21	25	45	119	139	171	**1057**
Rainfall (mm)		161	113	115	78	86	77	69	93	136	163	156	175	**1422**

Factors affecting flow regime: N
Station type: VA

1985 runoff is 104% of previous mean
rainfall 103%

061003 Gwaun at Cilrhedyn Bridge 1985

Measuring authority: WELS
First year: 1968
Grid reference: SN 005349
Level stn (m OD): 70.31
Catchment area (sq km): 31.3
Max alt. (m OD): 468

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	1.228	0.996	1.081	2.247	0.488	0.611	0.630	1.972	0.941	0.943	0.885	2.736	**1.188**
(m^3s^{-1})	Peak	4.88	2.11	3.64	6.75	1.17	3.35	3.76	12.72	5.95	9.19	5.26	12.85	**12.85**
Runoff (mm)		105	77	93	186	42	51	54	169	78	81	73	191	**1199**
Rainfall (mm)		111	52	137	125	66	131	137	243	83	95	137	239	**1556**

Monthly and yearly statistics for previous record (Apr 1969 to Dec 1984—incomplete or missing months total 0.1 years)

Mean	Avg	1.931	1.702	1.386	0.749	0.580	0.486	0.289	0.474	0.591	1.383	1.794	2.050	**1.116**
flows	Low	0.859	0.751	0.576	0.352	0.231	0.178	0.108	0.073	0.288	0.271	0.605	1.487	**0.802**
(m^3s^{-1})	High	3.898	4.108	3.668	1.298	1.248	1.600	0.712	1.366	1.630	3.462	3.080	2.851	**1.392**
Peak flow (m^3s^{-1})		22.52	21.10	16.70	13.51	7.23	18.35	7.03	23.48	15.64	16.13	20.03	20.59	**23.48**
Runoff (mm)		165	133	119	62	50	40	25	41	49	118	149	175	**1125**
Rainfall (mm)*		176	120	129	78	81	80	73	104	149	175	178	179	**1522**

*(1970-1984)

Factors affecting flow regime:
Station type: VA

1985 runoff is 107% of previous mean
rainfall 102%

063001 Ystwyth at Pont Llolwyn 1985

Measuring authority: WELS
First year: 1963
Grid reference: SN 591774
Level stn (m OD): 11.98
Catchment area (sq km): 169.6
Max alt (m OD): 611

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	4.714	5.185	3.382	7.855	2.213	7.571	4.158	8.556	3.895	4.129	3.960	13.930	**5.796**
(m^3s^{-1})	Peak	37.61	27.55	22.69	32.55	9.86	55.37	30.28	33.69	19.46	34.14	16.97	61.38	**61.38**
Runoff (mm)		74	74	53	120	35	116	66	135	60	65	61	220	**1078**
Rainfall (mm)		84	57	87	135	69	205	134	196	73	95	117	236	**1488**

Monthly and yearly statistics for previous record (Oct 1963 to Dec 1984—incomplete or missing months total 0.3 years)

Mean	Avg	9.527	7.310	6.124	4.075	3.476	2.375	2.395	3.079	4.509	7.259	9.523	10.810	**5.870**
flows	Low	2.268	2.283	2.816	0.961	0.578	0.625	0.422	0.181	0.882	0.535	4.069	2.219	**3.783**
(m^3s^{-1})	High	15.330	15.200	18.470	10.080	10.100	6.012	5.461	6.934	10.670	19.800	18.320	22.600	**7.775**
Peak flow (m^3s^{-1})		105.60	88.63	126.70	90.32	105.10	129.70	68.24	174.30	71.02	129.90	128.10	210.40	**210.40**
Runoff (mm)		150	105	97	62	55	36	38	49	69	115	146	171	**1092**
Rainfall (mm)		155	105	115	80	95	87	91	106	138	149	170	176	**1467**

Factors affecting flow regime:
Station type: VA

1985 runoff is 99% of previous mean
rainfall 101%

064001 Dovey at Dovey Bridge 1985

Measuring authority: WELS
First year: 1962
Grid reference: SH 745019
Level stn. (m OD): 5.89
Catchment area (sq km): 471.3
Max alt (m OD): 905

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	15.750	14.970	14.400	28.480	4.357	21.580	16.680	40.440	17.260	19.960	16.300	50.860	**21.753**
(m^3s^{-1})	Peak	105.80	57.58	118.90	104.30	14.88	217.60	55.88	128.10	47.60	170.90	139.50	288.60	**288.60**
Runoff (mm)		89	77	82	157	25	119	95	230	95	113	90	289	**1460**
Rainfall (mm)		107	66	149	168	85	207	161	316	127	150	166	333	**2035**

Monthly and yearly statistics for previous record (Oct 1962 to Dec 1984—incomplete or missing months total 9.8 years)

Mean	Avg	34.810	23.740	26.650	16.240	12.810	10.350	7.739	10.670	19.180	31.460	34.930	41.840	**22.552**
flows	Low	6.245	5.174	5.789	2.626	1.295	1.618	0.822	1.819	6.595	10.770	14.530	7.501	**18.343**
(m^3s^{-1})	High	68.810	46.060	75.790	42.490	23.600	21.770	14.090	24.050	34.110	76.960	62.790	88.280	**25.700**
Peak flow (m^3s^{-1})		350.20	340.00	360.70	271.30	337.20	402.10	162.00	210.00	254.90	344.00	375.50	580.50	**580.50**
Runoff (mm)		198	123	151	89	73	57	44	61	105	179	192	238	**1510**
Rainfall (mm)		199	131	153	107	112	104	103	130	174	182	217	228	**1840**

Factors affecting flow regime: N
Station type: VA

1985 runoff is 97% of previous mean
rainfall 111%

064002 Dysynni at Pont-y-garth 1985

Measuring authority: WELS
First year: 1966
Grid reference: SH 632066
Level stn: (m OD) 2.26
Catchment area (sq km): 75.1
Max alt: (m OD) 892

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	4.272	3.351	3.169	5.910	1.744	5.455	4.255	8.899	5.293	5.128	3.405	10.510	**5.116**
(m^3s^{-1})	Peak	45.65	13.19	17.78	25.65	5.83	40.32	14.07	32.39	15.22	35.39	22.05	56.64	**56.64**
Runoff (mm)		152	108	113	204	62	188	152	317	183	183	118	375	**2155**
Rainfall (mm)		130	84	161	205	99	269	193	336	152	168	167	347	**2311**

Monthly and yearly statistics for previous record (Jan 1966 to Dec 1984—incomplete or missing months total 1.8 years)

Mean	Avg	5.842	4.932	4.556	3.232	2.557	2.150	2.390	2.737	4.057	5.677	6.774	6.592	**4.289**
flows	Low	3.371	2.622	0.986	0.457	0.298	0.427	0.278	0.289	1.926	0.556	3.011	2.770	**3.612**
(m^3s^{-1})	High	11.040	8.809	14.780	7.209	7.602	5.921	5.407	5.137	7.285	12.350	10.750	10.750	**5.416**
Peak flow (m^3s^{-1})		61.40	41.34	98.71	33.40	76.32	48.42	53.35	51.62	70.14	107.70	121.30	84.70	**121.30**
Runoff (mm)		208	160	162	112	91	74	85	98	140	202	234	235	**1802**
Rainfall (mm)		207	144	163	109	123	129	126	142	200	235	236	221	**2035**

Factors affecting flow regime: N
Station type: VA

1985 runoff is 120% of previous mean
rainfall 114%

065005 Erch at Pencaenewydd 1985

Measuring authority: WELS
First year: 1972
Grid reference: SH 400404
Level stn: (m OD) 56.13
Catchment area (sq km): 18.1
Max alt: (m OD) 564

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	0.825	0.623	0.517	0.878	0.371	0.399	0.427	1.113	0.560	0.566	0.798	1.530	**0.717**
(m^3s^{-1})	Peak	8.28	2.71	5.03	11.00	1.29	2.49	5.40	9.22	3.25	6.53	6.49	7.81	**11.00**
Runoff (mm)		122	83	77	126	55	57	63	165	80	84	114	226	**1252**
Rainfall (mm)		115	60	112	157	88	121	140	277	131	86	162	212	**1861**

Monthly and yearly statistics for previous record (Jan 1973 to Dec 1984)

Mean	Avg	0.967	0.876	0.736	0.394	0.331	0.186	0.139	0.204	0.405	0.813	1.038	1.046	**0.594**
flows	Low	0.629	0.414	0.311	0.177	0.120	0.089	0.081	0.062	0.167	0.236	0.264	0.600	**0.430**
(m^3s^{-1})	High	1.396	1.869	1.804	0.892	0.728	0.539	0.230	0.504	0.919	1.736	1.816	1.616	**0.734**
Peak flow (m^3s^{-1})		10.25	15.45	19.78	8.73	4.68	6.99	3.87	5.35	7.42	11.84	16.91	10.45	**19.78**
Runoff (mm)		143	118	109	56	49	27	21	30	58	120	149	155	**1035**
Rainfall (mm)		143	100	117	58	78	64	66	97	146	161	161	152	**1343**

Factors affecting flow regime: N
Station type: C

1985 runoff is 121% of previous mean
rainfall 124%

066006 Elwy at Pont-y-gwyddel 1985

Measuring authority: WELS
First year: 1972
Grid reference: SH 952718
Level stn: (m OD) 87.90
Catchment area (sq km): 194.0
Max alt: (m OD) 518

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	3.114	3.208	2.512	5.761	2.332	2.005	0.682	2.592	1.665	2.806	6.684	10.240	**3.633**
(m^3s^{-1})	Peak	14.73	7.57	10.68	50.76	16.12	5.61	1.84	13.77	11.97	35.83	41.88	43.20	**50.76**
Runoff (mm)		43	40	35	77	32	27	9	36	22	39	89	141	**590**
Rainfall (mm)		60	27	69	105	83	95	47	131	47	81	148	161	**1054**

Monthly and yearly statistics for previous record (Dec 1973 to Dec 1984)

Mean	Avg	8.425	6.537	5.593	2.357	1.847	1.248	0.696	0.957	2.732	5.752	7.621	7.683	**4.279**
flows	Low	4.628	4.002	1.539	0.823	0.479	0.359	0.278	0.242	0.630	1.733	2.263	4.879	**2.908**
(m^3s^{-1})	High	11.430	12.050	11.950	4.722	5.918	3.300	1.402	4.351	7.450	11.530	11.850	14.450	**5.094**
Peak flow (m^3s^{-1})		82.42	50.82	76.59	25.01	21.66	18.00	27.05	35.15	58.57	143.00	101.60	75.42	**143.00**
Runoff (mm)		116	82	77	31	25	17	10	13	37	79	102	106	**696**
Rainfall (mm)		137	92	104	53	76	72	65	83	143	131	153	137	**1246**

Factors affecting flow regime: SRP
Station type: VA

1985 runoff is 85% of previous mean
rainfall 85%

067008 Alyn at Pont-y-capel 1985

Measuring authority: WELS
First year: 1965
Grid reference: SJ 336541
Level stn: (m OD) 37.29
Catchment area (sq km): 227.1
Max alt: (m OD) 562

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	2.307	2.921	2.712	3.172	2.475	1.503	0.716	0.767	0.552	0.566	2.457	3.334	**1.957**
(m^3s^{-1})	Peak	7.81	6.39	6.22	10.08	9.78	4.96	1.14	2.59	0.90	2.16	8.39	8.21	**10.08**
Runoff (mm)		27	31	32	36	29	17	8	9	6	7	28	39	**271**
Rainfall (mm)		53	45	66	80	85	93	41	81	20	47	136	78	**825**

Monthly and yearly statistics for previous record (Jun 1965 to Dec 1984)

Mean	Avg	4.468	4.157	3.342	2.360	1.854	1.167	0.899	0.848	1.025	2.026	3.161	4.437	**2.472**
flows	Low	1.753	2.088	1.465	1.023	0.712	0.438	0.331	0.287	0.474	0.452	0.614	1.246	**1.286**
(m^3s^{-1})	High	7.219	9.085	8.027	5.573	5.657	2.873	2.098	2.244	3.906	6.896	6.168	9.481	**3.027**
Peak flow (m^3s^{-1})		27.53	28.52	26.11	21.09	26.86	18.34	23.23	18.07	59.11	21.90	28.21	35.92	**59.11**
Runoff (mm)		53	45	39	27	22	13	11	10	12	24	36	52	**344**
Rainfall (mm)		88	69	75	56	73	63	60	68	89	83	108	98	**930**

Factors affecting flow regime: EI
Station type: CC

1985 runoff is 79% of previous mean
rainfall 89%

068003 Dane at Rudheath 1985

Measuring authority: NWWA
First year: 1949
Grid reference: SJ 668718
Level stn. (m OD): 13.19
Catchment area (sq km): 407.1
Max alt. (m OD): 547

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg.	5.600	3.668	3.691	7.175	4.298	3.713	1.696	2.835	1.999	2.882	4.225	10.020	**4.317**
(m^3s^{-1})	Peak	55.92	11.62	10.92	63.17	17.64	28.34	5.81	14.07	9.59	33.42	21.37	88.03	**88.03**
Runoff (mm)		37	22	24	46	28	24	11	19	13	19	27	66	**335**
Rainfall (mm)		53	12	56	85	80	74	57	82	37	55	77	95	**763**

Monthly and yearly statistics for previous record (Nov 1949 to Dec 1984—incomplete or missing months total 5.5 years)

Mean	Avg	7.344	5.952	4.689	3.877	2.957	2.435	2.664	3.433	3.721	4.436	6.621	7.498	**4.631**
flows	Low	2.183	1.545	1.277	0.988	0.720	0.746	0.734	0.654	0.633	0.877	1.396	1.803	**2.333**
(m^3s^{-1})	High	15.330	12.760	17.210	9.111	7.335	6.864	8.012	14.360	11.920	14.350	16.290	22.920	**8.662**
Peak flow (m^3s^{-1})		134.50	80.81	134.00	62.81	63.60	41.96	82.83	67.96	84.20	66.26	103.90	92.78	**134.50**
Runoff (mm)		48	36	31	25	19	16	18	23	24	29	42	49	**359**
Rainfall (mm)		79	60	61	56	64	68	74	84	84	77	90	86	**883**

Factors affecting flow regime: S PGEI
Station type: VA

1985 runoff is 93% of previous mean rainfall 86%

069002 Irwell at Adelphi Weir 1985

Measuring authority: NWWA
First year: 1949
Grid reference: SJ 824987
Level stn. (m OD): 24.15
Catchment area (sq km): 559.4
Max alt. (m OD): 473

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	18.360	10.750	11.570	21.770	10.640	9.255	8.716	19.030	15.470	13.910	14.890	28.760	**15.260**
(m^3s^{-1})	Peak	114.10	43.94	43.45	184.20	53.64	57.95	31.88	59.55	59.67	185.60	96.51	200.60	**200.60**
Runoff (mm)		88	46	55	101	51	43	42	91	72	67	69	138	**862**
Rainfall (mm)		98	14	89	114	78	73	98	150	84	70	95	172	**1135**

Monthly and yearly statistics for previous record (Oct 1949 to Dec 1984—incomplete or missing months total 2.0 years)

Mean	Avg	25.140	22.450	17.310	13.870	12.010	10.200	11.250	15.800	16.940	20.680	25.460	29.580	**18.381**
flows	Low	3.705	4.787	7.803	5.408	4.348	2.750	4.031	3.676	2.991	4.990	7.534	7.469	**10.469**
(m^3s^{-1})	High	40.260	67.230	48.030	27.070	21.530	18.900	26.150	56.000	43.480	52.510	51.100	84.660	**30.469**
Peak flow (m^3s^{-1})		430.40	400.30	295.60	156.20	141.60	238.00	385.60	395.70	390.80	485.10	334.90	419.50	**485.10**
Runoff (mm)		120	98	83	64	58	47	54	76	78	99	118	142	**1037**
Rainfall (mm)		120	85	89	76	81	84	99	121	124	122	134	136	**1271**

Factors affecting flow regime: S PGEI
Station type: B

1985 runoff is 83% of previous mean rainfall 89%

069006 Bollin at Dunham Massey 1985

Measuring authority: NWWA
First year: 1955
Grid reference: SJ 727875
Level stn. (m OD): 12.80
Catchment area (sq km): 256.0
Max alt. (m OD): 483

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg.	4.336	3.052	3.155	5.996	3.764	3.348	1.976	2.575	2.165	2.671	3.774	7.329	**3.678**
(m^3s^{-1})	Peak	26.25	9.84	10.73	30.77	22.92	23.76	6.55	8.69	3.94	20.39	16.34	38.37	**38.37**
Runoff (mm)		45	29	33	61	39	34	21	27	22	28	38	77	**454**
Rainfall (mm)		58	10	62	89	71	75	56	89	38	54	76	98	**776**

Monthly and yearly statistics for previous record (Oct 1955 to Dec 1984—incomplete or missing months total 1.1 years)

Mean	Avg.	6.323	5.535	4.339	3.420	2.871	2.260	2.229	2.797	3.163	3.955	5.352	6.207	**4.032**
flows	Low	1.639	1.686	1.694	1.742	1.286	0.707	0.875	0.464	0.651	1.300	1.804	2.296	**2.728**
(m^3s^{-1})	High	10.280	12.880	11.470	8.732	5.781	5.953	5.626	11.410	8.963	11.340	9.425	14.510	**6.307**
Peak flow (m^3s^{-1})		43.95	39.29	36.91	60.43	63.02	34.19	41.50	41.47	35.05	41.18	44.35	46.19	**63.02**
Runoff (mm)		66	53	45	35	30	23	23	29	32	41	54	65	**497**
Rainfall (mm)		81	57	61	54	65	69	77	89	88	81	86	87	**895**

Factors affecting flow regime: S PGEI
Station type: VA

1985 runoff is 91% of previous mean rainfall 87%

069015 Etherow at Compstall 1985

Measuring authority: NWWA
First year: 1969
Grid reference: SJ 962908
Level stn. (m OD): 73.49
Catchment area (sq km): 156.0
Max alt. (m OD): 628

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	3.445	2.161	1.365	4.851	2.049	1.766	1.109	1.495	1.896	1.714	2.275	5.158	**2.440**
(m^3s^{-1})	Peak	35.99	14.18	4.89	32.66	15.38	12.30	2.25	8.00	5.71	12.77	7.21	31.37	**35.99**
Runoff (mm)		59	34	23	81	35	29	19	26	32	29	38	89	**493**
Rainfall (mm)		112	16	88	132	73	87	74	161	85	67	111	145	**1151**

Monthly and yearly statistics for previous record (Jan 1977 to Dec 1984—incomplete or missing months total 0.3 years)

Mean	Avg	6.034	5.033	5.468	2.870	2.174	1.470	1.167	1.620	1.881	3.619	5.422	5.072	**3.481**
flows	Low	3.933	2.141	2.278	1.070	0.539	0.835	0.718	0.691	1.178	1.264	2.968	2.767	**2.871**
(m^3s^{-1})	High	8.964	8.539	10.080	6.325	4.870	2.997	1.993	3.572	2.692	9.424	7.471	8.741	**4.169**
Peak flow (m^3s^{-1})		42.12	44.46	46.03	27.50	18.79	24.95	15.22	24.43	37.45	42.12	35.83	62.95	**62.95**
Runoff (mm)		104	79	94	48	37	24	20	28	31	62	90	87	**704**
Rainfall (mm)		156	104	153	76	77	107	64	118	137	141	161	154	**1448**

Factors affecting flow regime: S PGEI
Station type: C

1985 runoff is 70% of previous mean rainfall 79%

070004 Yarrow at Croston Mill 1985

Measuring authority: NWWA
First year: 1973
Grid reference: SD 498180
Level stn. (m OD) 6 85
Catchment area (sq km) 74.4
Max alt. (m OD) 456

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	2 337	1.349	1 460	2 504	1 151	0 824	0.767	1.372	1.540	1 252	1.391	3 596	1.629
(m^3s^{-1})	Peak	22.91	6 44	6 65	31 18	10 12	7 44	6 70	7 05	11 04	19 68	9 58	30 53	31.18
Runoff (mm)		84	44	53	87	41	29	28	49	54	45	48	129	892
Rainfall (mm)		77	11	81	94	81	64	87	114	80	58	80	148	955

Monthly and yearly statistics for previous record (Jan 1976 to Dec 1984)

Mean	Avg	3 360	2 463	2 766	1 098	1.149	0.878	0.649	0.864	1 216	2.726	2.969	3 248	1.950
flows	Low	1 491	1.108	1.104	0.586	0.508	0 405	0 494	0.379	0.628	0 854	1 349	1.756	1.251
(m^3s^{-1})	High	4.917	4 917	7 574	1.994	2.577	1 240	0.971	1.352	2 062	6.360	4 699	5 012	2.830
Peak flow (m^3s^{-1})		33.44	20.17	93 13	27 64	27 79	30 15	11 69	15.84	28 57	89 38	34 23	107 60	107.60
Runoff (mm)		121	81	100	38	41	31	23	31	42	98	103	117	827
Rainfall (mm)		110	67	100	45	70	80	46	86	113	126	115	110	1068

Factors affecting flow regime: S PGEI
Station type: MIS

1985 runoff is 84% of previous mean
rainfall 89%

071004 Calder at Whalley Weir 1985

Measuring authority: NWWA
First year: 1961
Grid reference: SD 729360
Level stn. (m OD) 39 85
Catchment area (sq km): 316 0
Max alt. (m OD): 558

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	8 423	4 772	4.911	10 910	4 446	3 608	3 950	9.816	9 281	7 741	6 400	16 810	7.589
(m^3s^{-1})	Peak	91 54	22 08	26 66	99 68	32.00	26 92	23 65	44 82	112 00	147 50	43 73	156 20	156.20
Runoff (mm)		71	37	42	89	38	30	33	83	76	66	53	143	760
Rainfall (mm)		86	12	78	113	71	69	104	163	106	80	83	171	1136

Monthly and yearly statistics for previous record (Oct 1963 to Dec 1984—incomplete or missing months total 2.6 years)

Mean	Avg	13.310	9.898	9.113	6 155	5 414	4 290	3 633	5.588	7 625	11 180	13.530	13 360	8.589
flows	Low	5 766	3 320	3.989	2.272	2 053	1 888	1.773	1.564	2 065	2 397	5.625	4 886	6.197
(m^3s^{-1})	High	20.590	17.170	25 320	13 010	9.916	7.372	9 059	16 280	18.620	23 910	21.990	25 610	11.485
Peak flow (m^3s^{-1})		183 20	146 10	344 20	108.40	91 66	135.50	230 60	141.90	206 00	229.50	615 00	194.30	615.00
Runoff (mm)		113	76	77	50	46	35	31	47	63	95	111	113	858
Rainfall (mm)		123	81	99	71	82	85	81	101	123	123	138	125	1232

Factors affecting flow regime: EI
Station type: FV

1985 runoff is 89% of previous mean
rainfall 92%

071010 Pendle Water at Barden Lane 1985

Measuring authority: NWWA
First year: 1971
Grid reference: SD 837351
Level stn. (m OD) 92.28
Catchment area (sq km): 108 0
Max alt. (m OD): 557

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	3 044	1 657	1 732	3 784	1 492	1 228	1 416	3.364	3.272	2 485	2 004	5 439	2.576
(m^3s^{-1})	Peak	39 98	9 34	12 56	36 00	14 00	9 90	8 60	24 04	64 30	52 22	18.69	67 11	67.11
Runoff (mm)		75	37	43	91	37	29	35	83	79	62	48	135	754
Rainfall (mm)		86	10	73	109	71	69	110	161	106	74	72	176	1117

Monthly and yearly statistics for previous record (Nov 1971 to Dec 1984—incomplete or missing months total 2.5 years)

Mean	Avg	4 869	3 107	3 086	1 940	1 458	1 462	1.205	1 246	2 169	2.919	3.952	3 951	2 613
flows	Low	2 234	1 697	1 198	0 730	0.652	0 606	0 676	0.738	0 838	0.712	1.750	1 353	1.809
(m^3s^{-1})	High	6 900	4 817	8 577	3 881	3 008	2 813	2 490	2 384	3.873	6 610	6 124	6 296	3.643
Peak flow (m^3s^{-1})		64 81	79 00	83 69	62 38	11 26	62.26	16 00	37.95	67 37	81 61	78.54	101 40	101.40
Runoff (mm)		121	70	77	47	36	35	30	31	52	72	95	98	783
Rainfall (mm)*		138	78	137	64	70	104	45	112	127	142	155	145	1317

*(1977-1984)

Factors affecting flow regime: S EI
Station type: FV

1985 runoff is 99% of previous mean
rainfall 85%

072002 Wyre at St Michaels 1985

Measuring authority: NWWA
First year: 1962
Grid reference: SD 463411
Level stn. (m OD) 4.36
Catchment area (sq km): 275.0
Max alt. (m OD): 560

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	8 030	3 881	4 856	7.865	2 606	2 083	4 057	11 330	13 270	5.842	5 855	14 620	7 025
(m^3s^{-1})	Peak	128 00	21 88	37 78	73 14	21 13	24 60	67.31	93.46	176 50	53 53	62.15	95 30	176.50
Runoff (mm)		78	34	47	74	25	20	40	110	125	57	55	142	808
Rainfall (mm)		94	25	93	101	71	71	120	191	145	71	97	185	1264

Monthly and yearly statistics for previous record (Oct 1963 to Dec 1984—incomplete or missing months total 0.2 years)

Mean	Avg	9.876	7 207	6.998	4.536	3.373	2 868	2.732	4 234	6 526	9.325	10 620	10 500	6.566
flows	Low	3 983	1 746	2 270	0 774	0 732	0 444	0 431	0.249	0 902	0 617	4 859	2 581	3 186
(m^3s^{-1})	High	17.820	16 030	25.920	12 090	10.450	7.096	5 690	16 240	13 290	25 500	18.510	19 400	10.329
Peak flow (m^3s^{-1})		156.50	145.60	168 90	123.00	128.20	146.60	96 89	182.10	138 60	180 40	163.10	190 50	190.50
Runoff (mm)		96	64	68	43	33	27	27	41	62	91	100	102	753
Rainfall (mm)		123	74	96	69	79	92	85	109	139	138	142	124	1270

Factors affecting flow regime: S PG
Station type: FV

1985 runoff is 107% of previous mean
rainfall 100%

073005 Kent at Sedgwick 1985

Measuring authority: NWWA
First year: 1968

Grid reference: SD 509874
Level stn. (m OD) 18.90

Catchment area (sq km): 209.0
Max alt. (m OD): 820

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	5.998	5.112	4.841	11.420	3.463	3.320	10.550	18.790	15.630	8.251	6.815	20.110	9.525
(m^3s^{-1}):	Peak	39.70	24.02	38.18	40.19	12.79	10.81	90.10	88.68	89.15	39.06	35.13	231.40	231.40
Runoff (mm)		77	59	62	142	44	41	135	241	194	106	85	258	1443
Rainfall (mm)		98	28	106	146	87	88	223	325	205	105	144	288	1843

Monthly and yearly statistics for previous record (Nov 1968 to Dec 1984)

Mean	Avg.	13.020	9.865	9.255	6.061	4.041	3.741	3.133	4.770	7.872	10.510	14.260	12.510	8.245
flows	Low	7.521	4.529	3.348	2.038	1.222	0.872	0.658	0.740	1.753	1.396	5.484	5.466	5.995
(m^3s^{-1})	High	20.820	16.800	22.750	12.620	9.612	13.010	8.291	10.920	15.310	17.940	21.410	22.360	10.316
Peak flow (m^3s^{-1})		197.70	114.00	166.10	111.10	39.62	72.86	94.65	63.72	120.70	123.50	175.00	139.00	197.70
Runoff (mm)		167	115	119	75	52	46	40	61	98	135	177	160	1245
Rainfall (mm)		200	111	147	84	86	103	100	118	183	180	218	181	1711

Factors affecting flow regime: N
Station type: CBVA

1985 runoff is 116% of previous mean
rainfall 108%

074002 Irt at Galesyke 1985

Measuring authority: NWWA
First year: 1967

Grid reference: NY 136038
Level stn. (m OD) 54.17

Catchment area (sq km): 44.2
Max alt. (m OD): 978

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	1.321	1.686	1.626	4.241	1.047	1.904	4.666	6.757	7.631	2.981	2.422	5.298	3.465
(m^3s^{-1})	Peak	3.90	4.01	5.42	8.27	1.62	4.43	14.15	12.15	15.95	7.16	8.67	11.02	15.95
Runoff (mm)		80	92	99	249	63	112	283	409	447	181	142	321	2478
Rainfall (mm)		127	61	180	219	81	155	330	520	399	160	278	364	2874

Monthly and yearly statistics for previous record (Dec 1967 to Dec 1984)

Mean	Avg.	4.631	3.096	3.004	2.589	1.423	1.689	2.080	2.309	3.566	4.659	5.026	4.145	3.185
flows	Low	1.690	0.943	0.737	0.430	0.257	0.457	0.467	0.286	0.400	0.554	1.885	1.802	2.440
(m^3s^{-1})	High	8.242	5.117	6.575	5.947	2.572	5.216	4.141	5.144	5.582	8.174	7.094	7.645	3.950
Peak flow (m^3s^{-1})		31.73	18.67	16.74	34.04	6.19	10.27	27.26	18.46	17.89	27.29	21.85	20.33	34.04
Runoff (mm)		281	171	182	152	86	99	126	140	209	282	295	251	2274
Rainfall (mm)*		334	191	235	146	128	168	175	199	288	319	341	299	2823

*(1968-1984)

Factors affecting flow regime: I
Station type: VA

1985 runoff is 109% of previous mean
rainfall 102%

074005 Ehen at Braystones 1985

Measuring authority: NWWA
First year: 1973

Grid reference: NY 009061
Level stn. (m OD) 10.11

Catchment area (sq km): 125.5
Max alt. (m OD): 899

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	2.220	2.411	2.465	6.813	1.348	1.544	5.444	12.260	13.360	5.370	5.748	11.450	5.869
(m^3s^{-1})	Peak	6.18	12.54	15.83	39.16	4.03	6.80	53.72	73.04	76.40	26.60	63.56	62.63	76.40
Runoff (mm)		47	46	53	141	29	32	116	262	276	115	119	244	1479
Rainfall (mm)		62	41	104	170	69	94	213	357	257	99	184	279	1929

Monthly and yearly statistics for previous record (Jan 1974 to Dec 1984)

Mean	Avg.	8.386	6.270	5.574	2.721	1.834	1.697	1.550	3.002	5.119	8.281	8.621	7.642	5.055
flows	Low	4.881	2.011	2.225	0.993	0.771	0.779	0.789	0.661	1.694	3.640	3.121	3.136	3.983
(m^3s^{-1})	High	16.030	15.890	10.220	5.945	4.605	4.371	2.835	7.699	8.921	14.080	12.470	13.380	6.328
Peak flow (m^3s^{-1})		97.85	79.36	69.47	81.07	46.97	30.96	20.89	65.62	72.82	115.90	64.49	91.47	115.90
Runoff (mm)		179	122	119	56	39	35	33	64	106	177	178	163	1271
Rainfall (mm)		222	122	171	73	79	94	109	127	211	233	217	196	1854

Factors affecting flow regime: P
Station type: VA

1985 runoff is 116% of previous mean
rainfall 104%

075002 Derwent at Camerton 1985

Measuring authority: NWWA
First year: 1960

Grid reference: NY 038305
Level stn. (m OD) 16.70

Catchment area (sq km): 663.0
Max alt. (m OD): 950

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	11.850	11.470	12.250	35.730	8.083	9.124	21.110	55.940	62.980	27.430	23.050	66.150	28.764
(m^3s^{-1})	Peak	26.52	27.17	71.02	83.49	14.15	18.10	114.50	163.50	189.20	96.21	148.80	198.50	198.50
Runoff (mm)		48	42	49	140	33	36	85	226	246	111	90	267	1373
Rainfall (mm)		60	26	117	137	72	93	181	304	249	104	153	255	1751

Monthly and yearly statistics for previous record (Sep 1960 to Dec 1984)

Mean	Avg	38.250	28.370	24.510	18.840	13.710	10.430	10.570	16.650	24.650	35.650	41.440	39.420	25.199
flows	Low	9.587	4.837	7.466	4.359	2.753	2.041	2.503	2.384	2.885	2.755	14.570	14.740	14.824
(m^3s^{-1})	High	84.550	56.570	51.550	38.940	36.280	34.800	20.400	43.470	39.790	107.800	65.620	71.590	34.235
Peak flow (m^3s^{-1})		219.20	165.70	175.40	145.50	102.90	135.80	80.19	216.20	141.40	264.70	211.30	199.00	264.70
Runoff (mm)		155	104	99	74	55	41	43	67	96	144	162	159	1199
Rainfall (mm)*		186	105	137	93	103	110	108	138	188	199	198	177	1742

*(1961-1984)

Factors affecting flow regime: S P
Station type: VA

1985 runoff is 114% of previous mean
rainfall 101%

078003 Annan at Brydekirk 1985

Measuring authority: SRPB
First year: 1967

Grid reference: NY 191704
Level stn (m OD) 10 00

Catchment area (sq km) 925 0
Max alt (m OD): 821

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	17 080	15 530	17 070	35.960	11 000	9.115	34 050	74.950	75.830	36 100	18.300	68 040	34.419
(m^3s^{-1}):	Peak	94 51	57.52	89 43	138 00	53.70	55 64	219 90	259.50	471.90	157 00	143.60	330 80	471.90
Runoff (mm)		49	41	49	101	32	26	99	217	212	105	51	197	1179
Rainfall (mm)		64	27	105	100	74	92	184	291	223	90	112	183	1545

Monthly and yearly statistics for previous record (Oct 1967 to Dec 1984)

Mean	Avg	45 750	35.210	30 300	18 180	14 490	11 040	8 374	11.590	22.700	37 350	43.380	41 000	26 580
flows	Low	23 490	12 930	8 402	6.124	3.519	2.937	1 944	2 007	3.362	3.592	11 490	19 530	16.402
(m^3s^{-1})	High	83 440	55.440	53 770	40 600	30 590	32.150	16 180	47.880	47.490	86 820	77.930	68.170	35.427
Peak flow (m^3s^{-1})		405 40	291.30	236.00	182.50	168 50	171.30	151 20	254 50	315.20	499.10	325 00	355 40	499.10
Runoff (mm)		132	93	88	51	42	31	24	34	64	108	122	119	907
Rainfall (mm)		145	94	113	63	85	83	84	88	137	148	140	131	1311

Factors affecting flow regime:
Station type: VA

1985 runoff is 130% of previous mean
rainfall 118%

078004 Kinnel Water at Redhall 1985

Measuring authority: SRPB
First year: 1963

Grid reference: NY 077868
Level stn. (m OD) 53.70

Catchment area (sq km): 76.1
Max alt (m OD): 697

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	1 296	1.178	1 653	3.114	1.041	0 683	3 434	7 513	6 689	3 429	1.929	5.733	3.141
(m^3s^{-1})	Peak	15.27	6.38	12 95	20 74	18 03	7.84	60 14	58.54	91.37	44.20	51 61	48 46	91.37
Runoff (mm)		46	37	58	106	37	23	121	264	228	121	66	202	1308
Rainfall (mm)		67	26	109	103	79	92	200	303	229	103	124	188	1623

Monthly and yearly statistics for previous record (Oct 1963 to Dec 1984—incomplete or missing months total 1.0 years)

Mean	Avg	4 156	3 042	2 636	1.510	1 508	1 092	0 807	1 161	2.609	3 618	4.071	3 842	2.502
flows	Low	1 610	0.590	0.552	0 251	0 122	0 111	0 048	0 049	0 099	0 207	0 740	1 081	1.507
(m^3s^{-1})	High	8 456	5.362	5 124	4.161	3 715	3 282	1.763	4.363	4.985	7 288	7.535	7.009	3.482
Peak flow (m^3s^{-1})		79 34	77.68	59 19	42.46	51.79	36 09	57 71	52 36	67 21	110 90	86 69	103 60	110.90
Runoff (mm)		146	98	93	51	53	37	28	41	89	127	139	135	1038
Rainfall (mm)		150	99	119	73	99	91	85	99	152	157	154	148	1426

Factors affecting flow regime:
Station type: VA

1985 runoff is 126% of previous mean
rainfall 114%

080001 Urr at Dalbeattie 1985

Measuring authority: SRPB
First year: 1963

Grid reference: NX 822610
Level stn. (m OD) 4.01

Catchment area (sq km): 199 0
Max alt (m OD): 432

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	4 328	3 193	3 141	6.719	2 184	1 270	5 082	13 310	17 160	6 429	5 877	12 980	6.806
(m^3s^{-1}):	Peak	22 66	15 57	18 78	27 67	16 01	14 42	68 42	73.50	114.10	38 62	72 00	79 20	114.10
Runoff (mm)		58	39	42	88	29	17	68	179	223	87	77	175	1082
Rainfall (mm)		79	28	96	98	82	74	150	253	233	81	127	178	1477

Monthly and yearly statistics for previous record (Nov 1963 to Dec 1984)

Mean	Avg	9.693	7 901	6 127	3.304	2 969	2 094	1 156	1.943	4 823	8 288	9.699	9 556	5.620
flows	Low	3 534	1 419	2 094	0.753	0 308	0.246	0.140	0 149	0 319	0.522	1 711	3 369	3.109
(m^3s^{-1})	High	19 080	13 750	11 780	7.485	8.229	6.833	2 973	10 080	11 540	19 400	19 420	15 720	8.358
Peak flow (m^3s^{-1})		133 70	91 45	95 03	61.69	65 95	59.18	66 15	61 69	84 28	162.20	129 70	164 30	164.30
Runoff (mm)		130	97	82	43	40	27	16	26	63	112	126	129	891
Rainfall (mm)		135	93	107	64	81	80	72	87	136	146	146	134	1281

Factors affecting flow regime:
Station type: VA

1985 runoff is 121% of previous mean
rainfall 115%

081003 Luce at Airyhemming 1985

Measuring authority: SRPB
First year: 1966

Grid reference: NX 180599
Level stn. (m OD) 19 00

Catchment area (sq km): 171 0
Max alt (m OD): 438

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	4 540	3.967	3 704	5.833	2 455	1 996	6 436	14 130	17.520	3 259	9 132	10 290	6.938
(m^3s^{-1}):	Peak	70 60	56 61	26 13	49 46	30 22	33 90	64 97	156 40	188 90	37 73	162.00	137 70	188.90
Runoff (mm)		71	56	58	88	38	30	101	221	265	51	138	161	1281
Rainfall (mm)		78	52	89	110	69	87	166	263	263	54	189	168	1586

Monthly and yearly statistics for previous record (Jan 1967 to Dec 1984)

Mean	Avg	10.720	7.208	5.882	3.176	2.449	1.806	1 752	2.229	5.922	9 186	10 090	8.699	5.754
flows	Low	5 438	3.943	1 359	0 454	0 260	0.225	0.191	0 277	0 365	1 689	3.857	2 445	3.691
(m^3s^{-1})	High	15.600	12.110	11 300	8.289	7 232	4 587	5 399	6.806	12 820	16.750	15 940	13 440	7.625
Peak flow (m^3s^{-1})		177 10	146 10	197.30	197.60	63 64	64 10	131.50	171 80	192 40	231.80	168.40	204 00	231.80
Runoff (mm)		168	103	92	48	38	27	27	35	90	144	153	136	1082
Rainfall (mm)		175	101	111	69	76	82	84	93	152	166	165	141	1415

Factors affecting flow regime: S P
Station type: VA

1985 runoff is 121% of previous mean
rainfall 112%

082001 Girvan at Robstone 1985

Measuring authority: CRPB
First year: 1963
Grid reference: NX 217997
Level stn. (m OD) 9.13
Catchment area (sq km): 245.5
Max alt. (m OD): 659

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg.	3.846	4.136	3.455	5.191	1.600	1.153	6.750	12.930	21.830	5.593	5.954	11.110	**6.962**
(m^3s^{-1})	Peak	30.16	23.85	26.98	38.81	6.52	9.97	41.55	66.34	157.60	42.27	43.78	64.31	**157.60**
Runoff (mm)		42	41	38	55	17	12	74	141	230	61	63	121	**895**
Rainfall (mm)		57	32	85	75	53	77	162	233	263	55	118	148	**1358**

Monthly and yearly statistics for previous record (Oct 1963 to Dec 1984)

Mean	Avg.	10.650	7.546	6.253	3.672	2.829	1.943	1.907	2.768	5.803	9.679	11.470	10.140	**6.218**
flows	Low	4.789	2.805	1.595	0.924	0.521	0.370	0.487	0.301	0.546	1.191	2.755	2.894	**4.222**
(m^3s^{-1})	High	19.370	13.240	11.520	11.330	8.256	5.682	6.317	7.487	11.880	17.380	20.230	19.450	**7.859**
Peak flow (m^3s^{-1})		101.00	84.94	63.02	65.23	55.75	52.91	97.92	92.54	82.62	147.20	88.07	183.00	**183.00**
Runoff (mm)		116	75	68	39	31	21	21	30	61	106	121	111	**799**
Rainfall (mm)		141	83	107	65	79	80	89	93	145	163	168	137	**1350**

Factors affecting flow regime: S
Station type: VA

1985 runoff is 112% of previous mean
rainfall 101%

083003 Ayr at Catrine 1985

Measuring authority: CRPB
First year: 1970
Grid reference: NS 525259
Level stn. (m OD) 89.94
Catchment area (sq km): 166.3
Max alt. (m OD): 548

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	3.182	2.960	3.136	3.168	1.242	2.351	7.720	9.970	14.680	3.007	3.714	7.320	**5.204**
(m^3s^{-1})	Peak	30.54	22.84	42.81	34.33	5.58	48.67	70.77	70.02	157.40	21.63	26.49	44.59	**157.40**
Runoff (mm)		51	43	51	49	20	37	124	161	229	48	58	118	**989**
Rainfall (mm)		52	38	91	73	42	93	165	244	260	60	91	130	**1339**

Monthly and yearly statistics for previous record (Sep 1970 to Dec 1984)

Mean	Avg	9.151	5.602	5.419	2.668	1.940	1.856	1.591	2.217	4.897	6.797	8.779	7.110	**4.833**
flows	Low	3.977	2.986	1.480	0.733	0.593	0.658	0.417	0.410	0.597	0.631	2.147	3.312	**3.613**
(m^3s^{-1})	High	14.120	11.280	10.780	7.056	4.703	4.179	3.402	6.676	11.800	10.900	13.630	13.230	**5.926**
Peak flow (m^3s^{-1})		178.50	96.54	92.30	67.02	75.55	60.69	41.28	72.00	143.40	162.60	105.60	119.20	**178.50**
Runoff (mm)		147	82	87	42	31	29	26	36	76	109	137	115	**917**
Rainfall (mm)		149	83	104	62	68	82	79	79	129	149	162	127	**1273**

Factors affecting flow regime: H
Station type: VA

1985 runoff is 108% of previous mean
rainfall 105%

084012 White Cart Water at Hawkhead 1985

Measuring authority: CRPB
First year: 1963
Grid reference: NS 499629
Level stn. (m OD) 4.06
Catchment area (sq km): 234.9
Max alt. (m OD): 375

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	5.142	4.775	4.827	5.760	1.561	1.910	8.806	14.220	24.360	7.471	6.112	16.670	**8.468**
(m^3s^{-1})	Peak	51.16	23.91	60.54	54.93	10.06	22.64	93.51	52.36	128.30	60.30	99.76	96.98	**128.30**
Runoff (mm)		59	49	55	64	18	21	100	162	269	85	67	190	**1139**
Rainfall (mm)		55	38	89	71	56	83	172	227	300	55	113	192	**1451**

Monthly and yearly statistics for previous record (Oct 1963 to Dec 1984)

Mean	Avg	10.930	7.698	6.878	3.849	3.381	2.555	2.095	3.295	6.753	11.130	11.890	10.200	**6.719**
flows	Low	5.366	2.646	1.676	1.113	0.973	0.999	0.824	0.885	1.141	1.212	3.259	3.211	**4.419**
(m^3s^{-1})	High	21.190	14.260	15.630	8.522	7.652	6.542	4.256	7.270	14.610	46.570	20.730	19.610	**10.946**
Peak flow (m^3s^{-1})		187.40	139.20	117.00	82.46	115.10	65.13	69.33	111.30	132.90	134.40	134.00	187.10	**187.40**
Runoff (mm)		125	80	78	42	39	28	24	38	75	127	131	116	**903**
Rainfall (mm)		124	78	100	60	79	74	72	89	134	143	150	124	**1227**

Factors affecting flow regime: S
Station type: VA

1985 runoff is 126% of previous mean
rainfall 118%

084016 Luggie Water at Condorrat 1985

Measuring authority: CRPB
First year: 1968
Grid reference: NS 739725
Level stn. (m OD) 67.98
Catchment area (sq km): 33.9
Max alt. (m OD): 107

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	0.646	0.549	0.624	0.695	0.266	0.197	1.816	1.500	3.624	0.688	0.881	1.776	**1.105**
(m^3s^{-1})	Peak	8.14	2.65	10.93	6.34	1.12	0.59	34.19	17.34	42.27	6.25	26.26	11.55	**42.27**
Runoff (mm)		51	39	49	53	21	15	144	118	277	54	67	140	**1030**
Rainfall (mm)		55	29	77	63	50	62	197	167	250	35	95	144	**1224**

Monthly and yearly statistics for previous record (Oct 1968 to Dec 1984—incomplete or missing months total 0.4 years)

Mean	Avg	1.479	1.027	0.925	0.520	0.472	0.288	0.223	0.361	0.692	1.092	1.389	1.277	**0.811**
flows	Low	0.758	0.395	0.370	0.274	0.166	0.137	0.146	0.123	0.125	0.129	0.356	0.592	**0.539**
(m^3s^{-1})	High	3.312	1.944	1.591	1.030	1.199	0.673	0.364	0.981	1.956	2.148	2.255	2.230	**1.028**
Peak flow (m^3s^{-1})		38.90	22.89	35.65	8.86	14.54	5.55	5.00	20.88	41.98	42.44	30.68	37.41	**42.44**
Runoff (mm)		117	74	73	40	37	22	18	29	53	86	106	101	**755**
Rainfall (mm)		107	71	86	48	70	67	66	77	112	120	123	101	**1048**

Factors affecting flow regime: N
Station type: VA

1985 runoff is 136% of previous mean
rainfall 117%

085001 Leven at Linnbrane 1985

Measuring authority CRPB
First year 1963
Grid reference NS 394803
Level stn (m OD) 4.30
Catchment area (sq km) 784.3
Max alt (m OD) 1130

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	27.860	31 680	18 970	42 420	15 990	10 030	44 630	85 140	90 460	83 620	31 660	79 850	**46.859**
(m^3s^{-1})	Peak	71 09	60 48	60 83	66 22	54 84	15 31	85 61	113 00	118 80	128 00	55.14	110 80	**128.00**
Runoff (mm)		95	98	65	140	55	33	152	291	299	286	105	273	**1891**
Rainfall (mm)		84	75	107	141	87	82	261	364	328	102	165	298	**2094**

Monthly and yearly statistics for previous record (Jul 1963 to Dec 1984)

Mean	Avg	62 180	54 310	44 840	31.170	25 080	21 060	18.050	19 560	33 130	54 020	61 080	61.340	**40.424**
flows	Low	29 410	18 610	16 630	10 540	10 620	9 716	6 706	3 974	8 194	10 830	24 540	36 270	**30.712**
(m^3s^{-1})	High	119 100	102 100	98 420	51 390	51 100	51 860	30 690	40 070	64 980	90 150	96 320	94 750	**49.875**
Peak flow (m^3s^{-1})		150 50	140 80	122 20	83 14	71 90	66 58	57 64	56 96	100 80	138 50	130 00	131 00	**150.50**
Runoff (mm)		212	169	153	103	86	70	62	67	109	184	202	209	**1627**
Rainfall (mm)		238	144	169	98	120	120	114	129	216	232	237	213	**2030**

Factors affecting flow regime S
Station type VA

1985 runoff is 116% of previous mean
rainfall 103%

093001 Carron at New Kelso 1985

Measuring authority HRPB
First year 1979
Grid reference NG 942429
Level stn (m OD) 5 65
Catchment area (sq km) 137.8
Max alt (m OD) 1053

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	6 148	8 763	6 186	9 837	3 659	2 775	10 530	15 070	13 480	10 810	8 851	19 250	**9 613**
(m^3s^{-1})	Peak	120 30	66 13	69 92	58 35	21 17	8 35	47 30	44 50	94 38	65 93	86 96	134 90	**144.50**
Runoff (mm)		120	154	120	185	71	52	205	293	254	210	166	374	**2204**
Rainfall (mm)		125	101	154	217	91	104	248	321	322	217	244	364	**2508**

Monthly and yearly statistics for previous record (Jan 1979 to Dec 1984)

Mean	Avg	15 240	8 890	11 800	6 916	3 992	4 945	5 075	6 718	15 580	14 640	18 680	18 850	**10.954**
flows	Low	6 221	5 368	4 104	2 863	0 698	0 971	2 426	2 703	10 700	6 332	9 279	5 646	**9.152**
(m^3s^{-1})	High	28 470	13 610	18 250	13 440	8 894	8 623	8 578	11 580	19 100	24 070	31 120	30 710	**12.765**
Peak flow (m^3s^{-1})		190 00	142 00	197 30	139 50	48 85	81 71	78 03	80 25	142 30	132 70	217 40	295 50	**295.50**
Runoff (mm)		296	158	229	130	78	93	99	131	293	285	351	366	**2509**
Rainfall (mm)*		395	183	266	118	94	115	113	157	344	394	365	361	**2905**

*(1981-1984)

Factors affecting flow regime N
Station type VA

1985 runoff is 88% of previous mean
rainfall 86%

094001 Ewe at Poolewe 1985

Measuring authority HRPB
First year 1970
Grid reference NG 859803
Level stn (m OD) 4 61
Catchment area (sq km) 441 1
Max alt (m OD) 1014

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	13 820	29 130	17 920	26 990	13 200	8 699	24 640	33 070	37 710	37 280	29 810	51 790	**27 005**
(m^3s^{-1})	Peak	54 70	62 04	28 34	44 88	25 26	14 39	45 08	85 46	55 86	70 15	53 33	91 03	**91.03**
Runoff (mm)		84	160	109	159	80	51	150	201	222	226	175	314	**1930**
Rainfall (mm)		128	125	127	191	91	88	203	306	283	183	205	360	**2290**

Monthly and yearly statistics for previous record (Nov 1970 to Dec 1984)

Mean	Avg	42 370	29 260	26 910	22 800	14 800	13 770	13 580	14 540	31 650	35 970	48 180	46.770	**28 364**
flows	Low	18 550	12 980	8 842	4 537	3 862	4 675	7 884	6 240	8 046	13 160	22 680	16 500	**19.389**
(m^3s^{-1})	High	81 130	46 880	54 440	38 270	27 730	27 180	26 180	25 920	57 270	66 220	77 600	81 840	**35.549**
Peak flow (m^3s^{-1})		177 10	105 00	117 00	73 59	65 63	64 43	43 41	82 23	109 20	119 00	136 10	179 80	**179 80**
Runoff (mm)		257	162	163	134	90	81	82	88	186	218	283	284	**2029**
Rainfall (mm)		270	165	196	130	109	131	133	140	253	302	344	300	**2473**

Factors affecting flow regime N
Station type VA

1985 runoff is 95% of previous mean
rainfall 93%

095001 Inver at Little Assynt 1985

Measuring authority HRPB
First year 1977
Grid reference NC 147250
Level stn (m OD) 60 30
Catchment area (sq km) 137 5
Max alt (m OD) 988

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	4 082	7 570	4 179	7 023	4 605	2 535	6 783	8 579	10.310	9 861	8 962	11.390	**7.157**
(m^3s^{-1})	Peak	16 48	16.88	7 06	10 27	10 31	3 91	15.19	17.80	14 04	17 98	17 76	19.60	**19.60**
Runoff (mm)		80	133	81	132	90	48	132	167	194	192	169	222	**1840**
Rainfall (mm)		120	90	132	167	58	83	178	250	216	160	230	266	**1950**

Monthly and yearly statistics for previous record (Aug 1977 to Dec 1984)

Mean	Avg	11.860	7 658	9 707	5 371	3 781	3.272	4 924	5 029	11 120	14 530	14.700	11 370	**8.618**
flows	Low	6 949	5 045	4 402	3 453	1 660	1 915	2 432	3.394	5 263	6 227	8 605	4 631	**7.961**
(m^3s^{-1})	High	19 950	11 330	19 400	7 552	7 131	4 805	10 340	8 002	16 390	21 180	23 960	17 580	**10 784**
Peak flow (m^3s^{-1})		55 24	31 02	62 82	14 93	20 24	19.72	14 90	16 81	56 50	57 5*	50 06	46 65	**62.82**
Runoff (mm)		231	136	189	101	74	62	96	98	210	283	277	222	**1978**
Rainfall (mm)*		260	117	210	91	69	122	129	146	277	300	328	253	**2302**

*(1978-1984)

Factors affecting flow regime N
Station type VA

1985 runoff is 83% of previous mean
rainfall 85%

096001 Halladale at Halladale 1985

Measuring authority: HRPB
First year: 1975
Grid reference: NC 891561
Level stn. (m OD) 23.17
Catchment area (sq km): 204.6
Max alt. (m OD): 580

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg.	7.774	6.215	5.151	5.357	3.093	2.893	2.651	9.192	5.644	1.441	12.060	10.130	5.987
(m^3s^{-1}):	Peak	98.96	66.60	64.83	69.28	32.42	49.26	34.77	76.64	60.37	8.59	151.40	162.00	162.00
Runoff (mm)		102	73	67	68	40	37	35	120	72	19	153	133	918
Rainfall (mm)		96	29	102	116	70	96	94	177	126	35	195	104	1240

Monthly and yearly statistics for previous record (Jan 1976 to Dec 1984)

Mean	Avg	9.254	6.457	5.602	2.796	2.297	1.458	1.423	1.401	4.862	8.045	9.318	8.251	5.092
flows	Low	5.333	1.624	2.907	0.624	0.279	0.271	0.215	0.186	2.181	2.295	2.510	3.004	3.420
(m^3s^{-1})	High	11.900	10.940	9.753	6.442	5.434	3.528	4.943	3.386	7.886	16.560	14.730	12.390	6.418
Peak flow (m^3s^{-1})		83.60	68.52	107.00	53.18	108.00	46.89	129.10	76.31	189.10	126.00	163.20	115.40	189.10
Runoff (mm)		121	77	73	35	30	18	19	18	62	105	118	108	786
Rainfall (mm)		150	70	110	62	60	61	58	63	129	147	154	134	1198

Factors affecting flow regime: N
Station type: VA

1985 runoff is 117% of previous mean rainfall 104%

101002 Medina at Upper Shide 1985

Measuring authority: SWA
First year: 1960
Grid reference: SZ 503874
Level stn. (m OD) 10.40
Catchment area (sq km): 29.8
Max alt. (m OD): 167

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	0.306	0.320	0.235	0.233	0.160	0.134	0.106	0.165	0.161	0.140	0.143	0.307	0.201
(m^3s^{-1})	Peak	0.81	0.71	0.38	0.37	0.23	0.21	0.32	0.97	0.24	0.25	0.80	1.75	1.75
Runoff (mm)		28	26	21	20	14	12	10	15	14	13	12	28	212
Rainfall (mm)		78	51	70	36	43	62	55	109	29	31	81	116	761

Monthly and yearly statistics for previous record (Oct 1965 to Dec 1984—incomplete or missing months total 7.3 years)

Mean	Avg	0.441	0.439	0.364	0.255	0.214	0.146	0.137	0.117	0.170	0.228	0.358	0.399	0.272
flows	Low	0.150	0.160	0.133	0.104	0.094	0.069	0.083	0.044	0.080	0.110	0.120	0.116	0.211
(m^3s^{-1})	High	0.623	0.760	0.903	0.522	0.356	0.213	0.199	0.180	0.365	0.413	0.769	0.663	0.335
Peak flow (m^3s^{-1})		5.86	6.00	7.28	5.44	7.00	1.79	3.72	1.74	3.74	4.73	8.64	5.52	8.64
Runoff (mm)		40	36	33	22	19	13	12	11	15	21	31	36	288
Rainfall (mm)		129	84	85	56	79	67	65	67	87	93	125	117	1054

Factors affecting flow regime: N I
Station type: FL

1985 runoff is 74% of previous mean rainfall 72%

201007 Burn Dennet at Burndennet Bridge 1985

Measuring authority: DOEN
First year: 1975
Grid reference: IC 372047
Level stn. (m OD) 2.00
Catchment area (sq km): 145.3
Max alt. (m OD): 539

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	3.410	2.244	3.166	3.486	2.121	2.067	3.023	7.213	8.151	3.615	3.737	5.738	3.998
(m^3s^{-1}):	Peak	25.62	7.94	28.53	12.91	25.51	13.61	28.71	32.17	47.14	20.27	19.16	34.79	47.14
Runoff (mm)		63	37	58	62	39	37	56	133	145	67	67	106	870
Rainfall (mm)		84	29	107	93	77	96	144	230	205	57	102	110	1334

Factors affecting flow regime: E
Station type: VA

205005 Ravernet at Ravernet 1985

Measuring authority: DOEN
First year: 1972
Grid reference: IJ 267613
Level stn. (m OD) 31.00
Catchment area (sq km): 69.5
Max alt. (m OD): 163

Hydrometric statistics for 1985

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	2.022	2.842	2.328	2.427	1.409	1.016	1.185	3.386	3.355	1.802	1.740	2.894	2.201
(m^3s^{-1}):	Peak	18.01	7.90	9.48	5.01	2.36	1.43	4.03	13.85	13.74	3.16	6.52	6.21	18.01
Runoff (mm)		78	99	90	91	54	38	46	130	125	69	65	112	998
Rainfall (mm)		72	45	93	63	80	63	91	144	123	37	68	75	954

Factors affecting flow regime: I
Station type: FV

THE SURFACE WATER DATA RETRIEVAL SERVICE

The surface water archive comprises some 22,000 station-years of daily river flows and incorporates data from over 1200 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.

In order that the contents of the archive may be readily accessible, a suite of programs has been developed to provide a selection of retrieval options. Descriptions of these options are listed below, and examples of the computer output are given on pages 157 to 164. The data retrieval programs have been designed to allow flexibility in the presentation of the options, particularly those producing graphical output. Before finalising a data request it is recommended that the concise register of gauging stations on pages 165 to 170, and the summary of archived data given on pages 171 to 179, be consulted to check the availability of suitable data sets.

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 discuss their particular needs - address below.

Retrievals are normally available on line printer listings or magnetic tape, or as hydrograph plots.

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.

Requests for retrieval options

Requests for retrieval options should include: the name and address to which output should be directed, the gauging stations for which data are required together with the period of record of interest and the title of the required options. Where possible, a daytime telephone number should be given.

Requests should be addressed to:

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

Telephone: Wallingford (0491) 38800

Hydrological Data at the Institute of Hydrology

The surface water archive is one of several major sources of hydrological data held at Wallingford. Others 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 3000 individual events. Data may be retrieved from these sources in a variety of formats. Enquiries concerning the availability and use of such data should be directed to the above address.

LIST OF SURFACE WATER RETRIEVAL OPTIONS

OPTION NUMBER	TITLE	NOTES
1	Table of daily mean gauged discharges	Includes monthly and annual summary statistics. Flows in cubic metres per second.
	Table of daily mean naturalised discharges	Includes monthly and annual summary statistics. Flows in cubic metres per second.
	Yearbook data tabulation (daily)	River flow and catchment rainfall data for a specified year with basic gauging station details and flow statistics derived from the historical record. Naturalised flows (where available) - and the corresponding runoff - may also be tabulated.
	Table of monthly mean gauged discharges	Includes monthly and annual summary statistics. Flows in cubic metres per second.

	Table of monthly mean naturalised discharges	Includes summary statistics. Flows in cubic metres per second.
6	Yearbook data tabulation (monthly)	Monthly river flow and catchment rainfall data for a specified year together with comparative statistics derived from the historical record. Naturalised flows (when available) - and the corresponding runoff - may also be tabulated.
	Table of monthly extreme flows	The lowest and highest daily mean flows, together with the highest instantaneous flow (when available). Flows in cubic metres per second. Includes summary statistics.
8	Table of catchment monthly rainfall	Rainfall totals in millimetres and as a percentage of the 1941-70 catchment average. Includes summary statistics.
9	Table of catchment monthly areal rainfall and runoff	Runoff is normally derived from the monthly mean gauged flow. An additional listing is provided for catchments with naturalised flow records. A monthly summary is provided and all rainfall and runoff totals are in millimetres.
10	Hydrographs of daily mean flows	Choices of scale, units, truncation level and overlay grid pattern are available. The period of record maximum and minimum flows, or the mean flow, may be included. The plots may be based on single or n-day means, or on n-day running mean flows.
11	Hydrographs of monthly mean flows	Choices of scale, unit and overlay grid pattern are available. The period of record maximum, minimum and mean flows may be included.
12	Flow duration statistics	Tabulation of the 1-99 percentile flows with optional plot of the flow duration curve. The percentiles may be derived from daily flows or n-day averages and the analysis may be restricted to nominated periods within the year e.g. April-September only. Choices of scales, grid marking and units are available and the percentiles may be expressed as a percentage of the average flow or of a nominated flow.
13	Table of gauging station reference information	Tabulation of selected gauging station details and catchment characteristics for nominated gauging stations.
14	Table of hydrometric statistics	Provides a comparison between summary statistics for a selected year, or a group of years, and the corresponding statistics for a nominated period of record.
15	Gauging station description	A brief summary of the gauging station, its history and major influences on the flow regime.
16	River flow pattern plots	Three plots on one sheet: a) daily mean flow hydrograph for a selected year. b) maximum and minimum monthly flows, together with the 30-day running mean, for the preceding period of record. c) flow duration curves for the specified year and for the period of record.

Examples of these sixteen options follow on pages 157 to 164.

OPTION 1 TABLE OF DAILY MEAN GAUGED DISCHARGES

039001 TAW AT UNDERWOOD — DAILY MEAN GAUGED DISCHARGES IN CUBIC METRES PER SECOND

1981

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	19.190	10.920	37.260	13.900	8.927	16.710	3.064	3.249	1.272	39.130	44.220	33.430
2	19.160	11.980	40.710	12.020	13.230	29.010	3.125	2.242	1.305	53.770	35.000	27.270
3	23.450	43.650	28.700	10.850	18.080	16.470	3.740	1.919	1.235	105.200	29.010	23.160
4	17.580	26.340	23.290	9.823	16.100	13.690	3.109	1.857	1.137	78.200	24.830	20.440
5	15.950	22.470	21.020	8.913	17.550	13.640	3.043	2.091	1.109	58.640	20.230	17.690
6	15.520	19.190	21.440	8.200	19.040	12.160	3.731	8.561	1.078	44.100	17.230	16.600
7	13.830	17.750	33.840	7.679	17.730	11.390	2.662	4.332	1.079	33.600	15.170	31.070
8	17.670	16.930	37.610	7.318	15.710	10.670	2.441	3.192	1.106	30.360	13.280	69.430
9	16.190	20.830	223.400	7.043	13.770	9.451	2.283	2.787	1.096	33.360	11.830	41.100
10	14.200	16.420	173.500	6.694	29.540	10.960	2.174	2.495	1.228	31.090	10.560	40.460
11	11.690	15.290	136.900	7.144	17.620	17.360	2.037	2.200	1.830	30.730	10.360	69.490
12	14.250	15.010	107.300	5.962	14.770	10.980	2.064	2.037	2.238	29.440	9.672	41.850
13	15.650	13.250	95.870	5.427	12.960	9.766	2.115	1.923	2.266	23.360	8.364	124.300
14	86.200	11.940	84.540	5.040	12.020	9.036	2.013	1.846	2.438	21.270	7.665	136.160
15	59.950	11.250	67.040	4.626	18.640	8.388	1.993	1.810	4.032	34.210	7.235	74.980
16	55.230	10.490	58.300	4.563	16.690	7.624	1.997	1.686	2.511	23.060	7.329	48.790
17	59.010	9.854	25.140	4.267	33.340	7.013	1.919	1.564	4.231	26.540	6.770	35.680
18	61.550	8.956	23.000	4.017	28.820	6.398	1.814	1.518	21.100	25.060	31.920	26.640
19	51.280	8.265	19.490	3.866	21.890	5.996	1.918	1.597	42.080	32.680	45.490	22.260
20	51.260	7.799	16.960	3.671	24.980	5.551	1.882	2.931	34.500	78.020	55.820	83.240
21	57.170	13.540	54.130	3.520	18.270	4.922	2.531	2.176	23.510	57.400	41.600	40.630
22	44.360	14.310	57.040	3.494	16.860	4.532	5.875	2.847	17.760	42.990	32.140	29.310
23	36.600	31.930	44.340	3.320	18.970	4.320	5.221	1.727	14.510	32.740	27.840	23.160
24	32.140	16.980	39.990	3.738	23.600	4.180	3.528	1.665	20.270	79.240	22.910	18.860
25	25.910	14.590	38.440	4.100	31.230	3.912	2.786	1.512	16.820	100.000	19.190	16.750
26	21.520	13.620	49.640	10.310	25.570	3.759	2.607	1.427	15.610	63.880	19.850	18.300
27	18.590	24.220	32.660	24.990	24.870	3.541	2.359	1.355	13.740	49.610	35.840	42.330
28	16.460	22.720	26.920	13.750	20.650	3.346	2.151	1.310	12.460	40.030	38.720	65.270
29	14.910		22.310	14.700	18.360	3.165	2.050	1.279	11.450	36.140	31.600	74.130
30	13.190		18.380	12.190	16.400	3.035	1.892	1.246	10.550	60.950	44.110	68.980
31	11.850		15.890		15.370		2.730	1.224		52.860		53.840
MISSING DAYS	0	0	0	0	0	0	0	0	0	0	0	0
MEAN	29.827	16.857	52.144	7.776	19.552	9.114	2.764	2.208	9.895	47.232	24.213	46.348
MIN	11.690	7.799	15.890	3.520	8.927	3.035	1.814	1.224	1.078	21.270	7.235	16.110
MAX	80.200	43.650	223.400	24.990	33.340	29.010	8.875	8.561	42.080	105.200	55.820	136.160
MONTHLY TOTALS (CUMEC.DAYS)	924.64	471.99	1615.45	233.29	606.16	273.42	85.73	68.44	296.87	1479.68	726.39	1438.79

SUMMARY: MAX 223.400 ON 9 MAR
MIN 1.078 ON 5 SEP
MEAN 22.5.9

OPTION 2 TABLE OF DAILY MEAN NATURALISED DISCHARGES

039001 THAMES AT KINGSTON — DAILY MEAN NATURALISED DISCHARGES IN CUBIC METRES PER SECOND

1981

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	73.100	67.000	83.100	228.000	104.000	99.100	52.600	72.200	31.700	133.000	83.400	82.600
2	71.700	66.200	159.000	227.000	86.200	192.000	50.700	50.800	31.000	104.000	84.000	72.400
3	67.600	68.300	232.000	192.000	87.300	209.000	50.700	52.200	31.700	90.300	78.900	66.600
4	65.700	79.100	196.000	155.000	96.700	142.000	48.700	42.500	30.900	77.600	63.800	59.100
5	65.200	81.100	139.000	132.000	93.400	106.000	48.900	40.850	29.100	72.100	68.100	66.800
6	68.500	63.000	127.000	117.000	84.000	102.000	45.600	120.000	29.200	93.900	81.100	59.400
7	69.300	60.200	128.000	115.000	81.800	91.100	45.500	125.000	29.600	111.000	81.800	72.400
8	74.300	62.700	189.000	109.000	78.700	93.400	46.600	79.100	30.300	95.600	81.000	116.000
9	74.500	63.200	216.000	96.300	77.600	89.100	45.100	67.600	29.700	79.100	83.600	127.000
10	75.750	65.750	242.000	105.000	92.800	82.000	43.500	64.400	28.300	75.100	97.100	104.000
11	82.300	67.850	267.000	101.000	97.100	93.300	39.800	60.600	31.300	78.900	97.800	96.900
12	80.350	67.350	277.000	97.900	89.900	87.100	44.900	55.500	35.100	78.600	92.500	87.000
13	78.700	61.500	273.000	96.100	74.000	78.300	42.800	48.100	37.700	63.800	97.200	90.100
14	78.850	61.050	259.000	120.000	71.400	73.800	41.200	41.500	38.500	67.200	95.400	230.000
15	99.450	58.730	274.000	114.000	77.700	70.300	43.100	40.800	48.600	67.800	93.100	314.000
16	107.000	59.900	253.000	84.900	92.300	69.500	40.800	38.600	41.300	66.700	98.600	279.000
17	111.000	55.500	218.000	85.100	91.200	67.600	41.600	37.000	36.300	69.800	73.700	228.000
18	121.000	55.300	160.000	80.900	93.100	65.400	42.000	37.700	35.900	65.700	96.800	145.000
19	112.000	54.500	139.000	74.200	92.200	66.300	41.600	37.600	49.600	61.300	97.800	118.000
20	109.000	56.300	127.000	76.500	100.000	64.400	41.400	37.400	104.000	136.000	121.000	110.000
21	109.000	53.100	147.000	75.100	122.000	64.200	40.300	36.100	67.300	179.000	148.000	156.000
22	113.000	53.800	173.000	75.300	107.000	59.800	39.700	36.400	61.600	167.000	131.000	154.000
23	111.000	58.100	206.000	73.100	90.400	61.000	39.400	36.100	40.100	132.000	97.900	132.000
24	95.600	60.100	204.000	72.400	111.000	61.700	39.300	35.100	42.700	92.600	90.400	141.000
25	86.100	59.200	204.000	79.300	177.000	61.000	48.000	34.900	51.900	94.100	72.000	144.000
26	78.800	61.000	203.000	128.000	266.000	57.100	47.400	32.800	131.000	107.000	75.600	99.300
27	77.500	61.000	181.000	183.000	267.000	57.700	39.300	34.100	162.000	93.900	74.800	96.800
28	72.500	64.800	131.000	194.000	212.000	57.600	37.800	32.700	96.500	85.500	100.000	131.000
29	71.800		135.000	174.000	171.000	54.200	35.400	32.400	73.600	80.500	89.500	218.000
30	71.700		145.000	140.000	122.000	50.700	37.500	32.200	61.000	81.400	87.700	295.000
31	67.500		204.000		108.000		44.500	33.300		82.100		264.000
MISSING DAYS	0	0	0	0	0	0	0	0	0	0	0	0
MEAN	85.003	62.336	189.455	119.373	113.203	84.113	45.090	46.245	53.247	91.045	79.336	138.116
MIN	65.200	53.100	83.100	72.400	71.400	50.700	37.500	32.200	28.300	61.800	53.100	66.600
MAX	121.000	81.100	289.000	228.000	267.000	209.000	52.700	125.000	162.000	179.000	148.000	314.000
MONTHLY TOTALS (CUMEC.DAYS)	2635.10	1745.40	5873.10	3581.20	3509.30	2523.40	1397.80	1495.60	1597.40	2822.40	2370.90	4281.60

SUMMARY: MAX 314.000 ON 31 DEC
MIN 28.300 ON 30 SEP
MEAN 92.894

OPTION 3 YEARBOOK DATA TABULATION (DAILY)

0 5 0 0 0 1 Tew at Umberleigh 1 9 8 .

Measuring authority: SWWA Grid reference: SS608237 Catchment area (sq km): 826.2

First year: 1958 Level stn. (m OD): 14.14 Max alt. (m OD): 604

DAILY MEAN GAUGED DISCHARGES (cubic metres per second)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	55.540	16.580	32.590	8.793	2.961	1.481	3.408	2.565	2.481	11.570	12.900	18.040
2	44.350	14.980	47.170	8.223	2.900	1.404	3.217	2.355	2.499	16.530	12.920	15.860
3	39.740	13.270	71.030	7.983	3.454	1.824	2.920	2.179	2.266	17.900	11.200	13.900
4	43.330	12.030	65.610	7.460	3.646	1.883	2.644	2.037	2.252	24.500	13.800	12.580
5	61.630	29.340	34.130	7.032	3.957	1.468	2.492	2.248	2.242	28.310	35.990	12.900
6	47.220	20.720	68.100	8.518	4.265	1.327	2.325	2.978	2.354	24.700	36.590	12.130
7	37.700	20.410	83.780	17.120	3.157	1.263	2.215	2.347	2.488	19.050	124.300	44.020
8	70.390	18.880	49.530	10.250	2.891	1.204	2.000	2.012	2.319	16.200	98.670	38.800
9	64.400	17.320	62.320	7.853	2.742	1.193	2.507	1.907	2.242	14.040	53.580	104.300
10	38.680	16.780	75.100	7.298	2.652	1.170	2.247	1.940	2.105	14.970	43.560	132.400
11	28.550	38.260	51.800	6.897	2.494	1.511	13.560	1.886	1.979	39.210	41.030	105.300
12	22.210	32.680	58.890	6.468	2.349	2.070	77.330	1.693	1.939	29.550	117.200	97.190
13	18.400	30.180	39.020	6.125	2.265	1.870	25.960	2.917	1.802	31.830	100.900	60.400
14	16.590	23.040	33.220	5.856	2.221	1.375	25.070	2.937	1.712	26.160	85.790	81.060
15	34.080	19.950	101.000	5.622	2.218	1.229	16.550	5.925	1.718	22.720	59.250	78.900
16	111.600	17.310	92.820	5.272	2.254	1.233	12.270	3.144	1.655	39.350	51.730	70.870
17	77.900	15.720	61.230	4.995	2.139	1.165	9.724	2.562	1.614	37.310	50.120	85.400
18	61.970	14.420	43.950	4.840	2.076	2.345	8.104	3.979	1.546	30.180	58.710	61.470
19	48.630	12.680	41.430	4.612	2.040	3.246	6.760	3.467	1.595	25.920	54.270	170.000
20	38.170	11.330	32.000	4.427	2.030	1.932	5.789	2.564	1.740	38.880	45.640	97.780
21	34.580	15.330	38.170	4.270	2.072	1.546	5.126	2.168	2.211	56.460	87.420	66.540
22	32.700	19.450	27.910	4.165	2.815	2.336	4.590	2.137	2.249	39.990	60.730	47.950
23	26.630	12.880	23.870	3.903	2.598	6.278	4.230	2.229	2.293	30.220	55.170	50.290
24	26.710	11.770	21.070	3.692	2.238	4.353	4.015	2.342	12.840	24.060	63.740	54.570
25	24.830	16.350	18.340	3.546	2.031	3.678	3.669	2.094	10.620	20.490	55.550	42.160
26	39.890	13.660	16.050	3.408	1.845	9.491	3.249	2.486	7.515	17.240	45.080	35.430
27	29.160	13.970	14.190	3.286	1.756	6.750	2.986	2.883	14.970	14.320	35.870	29.480
28	27.260	19.720	12.550	3.187	1.663	5.382	2.764	2.257	12.460	12.260	30.590	24.210
29	24.700		11.280	3.126	1.609	5.605	2.646	2.073	12.590	10.990	24.300	20.670
30	21.050		10.050	3.074	1.508	4.099	2.507	2.637	10.050	9.886	20.420	17.980
31	18.170		9.077		1.477		2.585	2.652		9.246		16.360
Average	40.860	18.540	42.170	6.041	2.462	2.723	8.563	2.585	4.278	24.260	52.830	55.450
Lowest	16.590	11.330	9.077	3.074	1.477	1.165	2.000	1.693	1.546	9.246	11.200	12.130
Highest	111.600	38.260	101.000	17.120	4.265	9.491	77.330	5.925	14.970	56.460	124.300	170.000
Peak flow	127.600	55.380	143.900	23.890	5.538	12.480	102.200	7.727	25.400	72.350	215.200	241.100
Day of peak	16	13	15	7	6	27	12	15	24	17	8	19
Monthly total (million cu m)	109.40	44.84	112.90	15.66	6.59	7.06	22.94	6.92	11.09	64.98	136.90	148.50
Runoff (mm)	132	54	137	19	8	9	28	8	13	79	166	180
Rainfall (mm)	106	78	143	24	37	116	67	67	81	129	192	179

STATISTICS OF MONTHLY DATA FOR PREVIOUS RECORD (Oct 1958 to Dec 1981)

Mean flows:	Avg.	34.490	29.840	20.620	13.730	9.404	5.488	4.782	5.648	8.228	18.950	27.980	36.080
	Low	6.657	3.244	7.918	3.889	2.073	1.434	0.796	0.623	0.861	1.043	3.653	13.210
	(year)	1963	1959	1962	1974	1976	1976	1976	1976	1959	1978	1978	1963
	High	50.890	54.760	52.140	32.800	22.140	16.630	23.390	14.440	47.670	77.360	58.500	73.670
	(year)	1965	1970	1981	1966	1969	1972	1968	1965	1974	1960	1963	1965
Runoff:	Avg.	112	88	67	43	30	17	16	18	26	61	88	117
	Low	22	10	26	12	7	5	3	1	3	3	11	43
	High	165	160	169	103	72	52	76	47	150	251	184	239
Rainfall:	Avg.	127	91	89	70	72	66	74	87	93	112	127	137
	Low	28	5	18	8	28	10	23	33	14	14	56	41
	High	216	173	183	145	144	164	152	140	247	276	239	271

SUMMARY STATISTICS

	FOR 1982		FOR RECORD PRECEDING 1982		1982 AS % OF PRE-1982
Mean flow (m3/s)	21.810		17.890		122
Lowest yearly mean			11.310	1964	
Highest yearly mean			27.590	1960	
Lowest monthly mean	2.462	May	0.423	Aug 1976	
Highest monthly mean	55.450	Dec	77.360	Oct 1960	
Lowest daily mean	1.165	17 Jun	0.200	28 Aug 1976	
Highest daily mean	170.000	19 Dec	363.800	4 Dec 1960	
Peak	241.100	19 Dec	644.900	4 Dec 1960	
10 %ile	59.730		45.930		130
50 %ile	12.030		9.472		127
95 %ile	1.612		1.250		129
Annual total (million cu m)	687.80		564.60		122
Annual runoff (mm)	832		683		122
Annual rainfall (mm)	1239		1145		108
[1941-70 rainfall average (mm)			1183]		

FACTORS AFFECTING FLOW REGIME

* Reservoir(s) in catchment.
* Abstraction for public water supplies.
* Augmentation from effluent returns.

STATION DESCRIPTION

Velocity-area station

OPTION 4 TABLE OF MONTHLY MEAN GAUGED DISCHARGES

050001 TAW AT UMBERLEIGH MONTHLY MEAN GAUGED DISCHARGES IN CUBIC METRES PER SECOND

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1979	30.918	32.905	44.410	15.654	12.801	7.879	1.956	11.910	5.314	9.371	36.082	51.477
1980	28.179	43.619	27.454	16.487	2.415	9.840	8.788	5.630	11.427	40.530	28.949	33.352
1981	29.826	16.857	52.143	7.777	19.551	9.113	2.748	2.209	9.897	67.732	24.212	46.347
1982	40.863	18.538	42.171	6.040	2.462	2.722	6.563	2.585	6.278	24.258	52.833	55.450
1983	48.920	19.180	14.436	17.895	36.998	6.472	1.650	0.836	3.245	14.976	11.134	46.906
1984	62.101	36.469	7.449	5.457	2.255	1.329	0.793	0.802	3.589	20.636	49.390	37.380
MEAN	40.134	27.961	31.344	11.218	12.747	5.893	4.083	3.995	6.292	26.251	33.767	45.152
MIN	28.179	16.857	7.449	5.457	2.255	1.329	0.793	0.802	3.245	9.371	11.134	33.352
MAX	62.101	43.619	52.143	17.895	36.998	9.840	8.788	11.910	11.427	67.732	52.833	55.450

THE SUMMARY RELATES EXCLUSIVELY TO THE YEARS SHOWN.

OPTION 5 TABLE OF MONTHLY MEAN NATURALISED DISCHARGES

039001 THAMES AT KINGSTON MONTHLY MEAN NATURALISED DISCHARGES IN CUBIC METRES PER SECOND

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1979	125.200	168.700	203.200	165.700	135.900	108.600	45.960	42.090	30.840	38.450	46.670	145.800
1980	145.100	162.200	137.600	106.700	69.660	65.830	40.200	37.400	38.010	75.420	75.540	90.620
1981	88.970	60.530	199.300	123.900	118.400	84.170	40.660	44.610	51.900	95.810	78.220	142.200
1982	198.100	123.700	167.000	90.960	55.630	46.920	38.690	31.290	31.940	89.340	129.600	177.100
1983	126.500	110.900	84.870	128.400	137.400	82.860	43.670	34.580	35.280	38.280	39.100	78.590
1984	144.600	129.200	105.000	87.860	61.000	44.490	26.700	26.100	31.600	43.130	104.900	126.100
MEAN	138.078	125.872	152.828	117.253	92.998	68.778	39.313	36.012	36.562	62.572	79.005	126.702
MIN	88.970	60.530	84.870	87.860	49.660	44.490	26.700	26.100	30.660	38.450	39.100	78.590
MAX	198.100	168.700	203.200	165.700	137.400	108.600	45.960	44.610	51.900	95.810	129.600	177.100

THE SUMMARY RELATES EXCLUSIVELY TO THE YEARS SHOWN.

OPTION 6 YEARBOOK DATA TABULATION (MONTHLY)

050001 at Umberleigh 1982

Measuring authority: SWWA Grid reference: SS6008237 Catchment area (sq km): 826.2

First year: 1958 Level stn. (m OD): 14.14 Max alt. (m OD): 604

HYDROMETRIC STATISTICS FOR 1982

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
Flows (m3/s):	Avg.	40.860	18.540	42.170	6.041	2.462	2.723	6.563	2.585	6.278	24.260	52.830	55.450	21.730
	Peak	127.60	55.38	143.90	23.89	5.54	12.48	162.20	7.73	25.40	72.35	215.20	241.10	241.10
Runoff (mm)		132	54	137	19	8	9	28	8	13	79	166	180	833
Rainfall (mm)		106	78	143	24	37	116	67	87	81	129	192	179	1239

MONTHLY AND YEARLY STATISTICS FOR PREVIOUS RECORD (Oct 1958 to Dec 1981)

Mean flows (m3/s):	Avg.	34.490	29.840	20.620	13.730	9.434	5.488	4.782	5.648	8.228	18.950	27.980	36.080	17.891
	Low	6.657	3.244	7.918	3.889	2.073	1.434	0.798	0.423	0.861	1.043	3.653	13.210	11.312
	High	50.890	54.760	52.140	32.800	22.140	16.630	23.390	14.440	47.670	77.360	58.500	73.670	27.367
Peak flow (m3/s)		580.60	278.40	339.90	149.40	91.74	160.10	206.00	183.50	312.30	422.10	249.70	644.90	644.90
Runoff (mm)		112	88	67	43	30	17	16	18	26	61	88	117	683
Rainfall (mm)		127	91	89	70	72	66	74	87	93	112	127	137	1145

Factors affecting flow regime: S P E
Station type: VA

1982 runoff is 122% of previous mean rainfall 108%

OPTION 7 TABLE OF MONTHLY EXTREME FLOWS

050001 TAW AT UMBERLEIGH

TABLE OF MONTHLY INSTANTANEOUS PEAK DISCHARGES AND HIGHEST AND LOWEST DAILY MEAN GAUGED DISCHARGES IN CUBIC METRES PER SECOND

YEAR		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1978	HI	192.600	216.700	97.510	53.100	70.040	3.504	9.965	26.430	1.737	1.386	21.980	94.700
	HD	116.900	184.000	87.000	46.030	37.000	3.037	5.039	11.110	1.699	1.314	12.040	71.940
	LD	15.560	6.162	13.490	5.923	2.752	1.382	1.656	1.709	1.035	0.889	0.881	3.926
1979	HI	95.310	150.800	108.700	30.700	55.430	20.550	5.994	69.190	18.710	61.830	85.940	354.100
	HD	66.420	121.900	92.120	26.330	31.630	14.630	4.143	37.570	10.640	35.450	67.010	208.400
	LD	12.430	10.040	11.390	8.787	6.746	3.249	1.201	1.561	2.799	3.894	12.730	13.710
1980	HI	113.400	170.200	127.300	136.600	5.565	84.430	32.830	20.630	68.730	160.400	173.000	106.300
	HD	85.420	123.600	87.090	94.790	4.795	52.430	19.620	12.250	41.480	119.300	114.600	82.790
	LD	10.630	13.980	10.330	3.365	1.565	1.303	4.902	3.158	4.311	7.634	6.078	10.270
1981	HI	149.700	80.990	339.900	32.560	50.860	54.120	14.080	11.550	95.070	123.900	90.340	256.000
	HD	80.200	43.450	223.400	24.990	33.340	29.010	8.875	8.561	42.080	105.200	55.820	136.100
	LD	11.690	7.799	15.890	3.320	8.922	3.035	1.814	1.224	1.078	21.270	7.235	18.110
1982	HI	127.600	55.380	143.900	23.890	5.538	12.480	162.200	7.727	25.400	72.350	215.200	241.100
	HD	111.600	38.260	101.000	17.120	4.265	9.491	77.330	5.925	14.970	58.460	124.300	170.000
	LD	16.590	11.330	9.077	3.074	1.477	1.165	2.300	1.693	1.546	9.246	11.200	12.130
MAX	HI	192.600	216.700	339.900	136.600	70.040	84.430	162.200	69.190	95.070	160.400	215.200	354.100
MAX	HD	116.900	184.000	223.400	94.790	37.000	52.430	77.330	37.570	42.080	119.300	124.300	208.400
MIN	LD	10.630	6.162	9.077	3.074	1.477	1.165	1.201	1.224	1.035	0.889	0.881	3.926

THE SUMMARY RELATES EXCLUSIVELY TO THE YEARS SHOWN.

HI = HIGHEST INSTANTANEOUS DISCHARGE
HD = HIGHEST DAILY MEAN GAUGED DISCHARGE
LD = LOWEST DAILY MEAN GAUGED DISCHARGE

OPTION 8 TABLE OF CATCHMENT MONTHLY RAINFALL

050001 TAW AT UMBERLEIGH

AREAL AVERAGE RAINFALL EXPRESSED IN MM & AS A PERCENTAGE OF LONG TERM MEAN

YEAR		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1978	RAINFALL (MM)	160	146	114	51	49	61	95	42	39	14	68	174
	% 1941-70 MEAN	126	139	144	71	60	100	116	41	38	12	51	128
1979	RAINFALL (MM)	110	72	164	68	102	52	45	126	49	100	122	192
	% 1941-70 MEAN	87	78	208	94	126	85	55	124	47	88	91	141
1980	RAINFALL (MM)	99	130	131	24	43	164	65	69	101	175	107	115
	% 1941-70 MEAN	78	141	166	33	53	269	79	68	97	155	80	85
1981	RAINFALL (MM)	90	76	183	47	126	42	78	35	153	200	85	173
	% 1941-70 MEAN	71	83	232	65	156	69	95	34	147	177	63	127
1982	RAINFALL (MM)	106	78	143	24	37	116	67	87	81	129	192	179
	% 1941-70 MEAN	83	85	181	33	46	190	82	85	78	114	143	132
RAINFALL (MM)													
MEAN		113	100	147	43	71	87	70	72	85	124	115	167
MIN		90	72	114	24	37	42	45	35	39	14	68	115
MAX		160	146	183	68	126	164	95	126	153	200	192	192

THE SUMMARY RELATES EXCLUSIVELY TO THE YEARS SHOWN.

OPTION 9 TABLE OF CATCHMENT MONTHLY AREAL RAINFALL AND RUNOFF

050001 TAW AT UMBERLEIGH

MONTHLY RAINFALL AND RUNOFF (DERIVED FROM GAUGED FLOWS) EXPRESSED IN MM OVER THE CATCHMENT

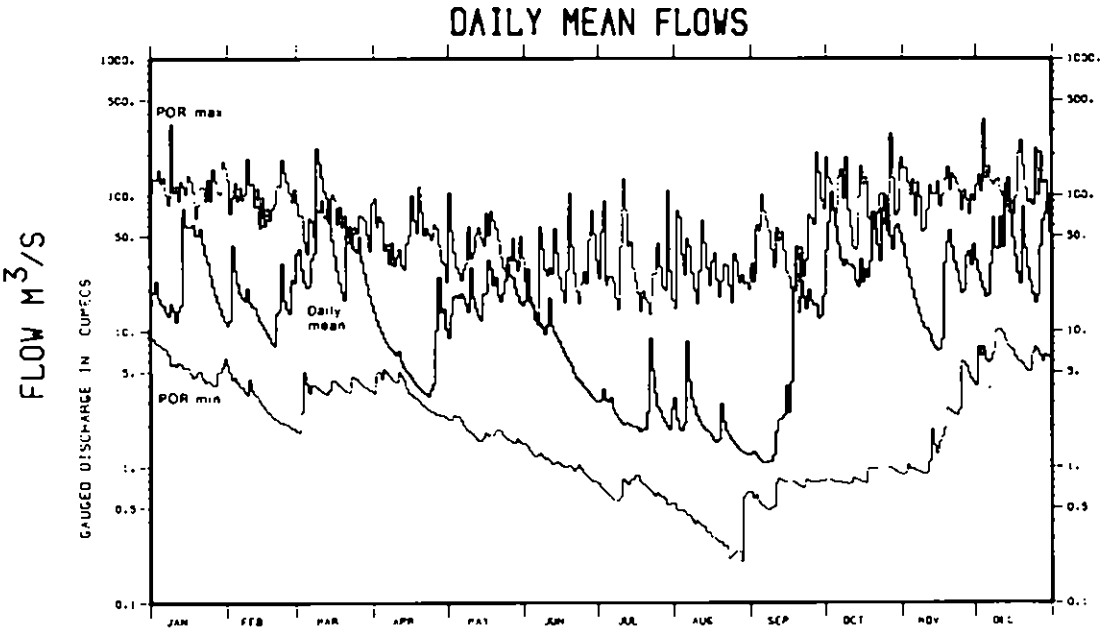
YEAR		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1978	RAINFALL	160	146	114	51	49	61	95	42	39	14	68	174
	RUNOFF	133	143	105	40	33	7	10	13	4	3	11	97
1979	RAINFALL	110	72	164	68	102	52	45	126	49	100	122	192
	RUNOFF	100	96	144	49	42	25	6	39	17	30	113	187
1980	RAINFALL	99	130	131	24	43	164	65	69	101	175	107	115
	RUNOFF	91	133	89	45	8	31	28	18	36	131	91	108
1981	RAINFALL	90	76	183	47	126	42	78	35	153	200	85	173
	RUNOFF	97	49	169	24	63	29	9	7	31	155	76	150
1982	RAINFALL	106	78	143	24	37	116	67	87	81	129	192	179
	RUNOFF	132	54	137	19	8	9	28	8	13	79	166	180
RAINFALL													
MEAN		113	100	147	43	71	87	70	72	85	124	115	167
MIN		90	72	114	24	37	42	45	35	39	14	68	115
MAX		160	146	183	68	126	164	95	26	153	200	192	192
RUNOFF													
MEAN		111	95	129	35	31	20	16	17	20	80	91	140
MIN		91	49	89	19	8	7	6	7	4	3	11	97
MAX		133	143	169	49	63	31	28	39	36	155	166	180
% RUNOFF													
MEAN		98	95	88	81	44	23	23	24	24	65	79	84
MIN		83	64	68	51	19	8	11	9	10	21	16	56
MAX		>100	>100	96	>100	67	69	43	31	36	78	93	>100

THE SUMMARY RELATES EXCLUSIVELY TO THE YEARS SHOWN.

OPTION 10 HYDROGRAPH OF DAILY MEAN FLOWS

050001 TAW AT UMBERLEIGH 1981

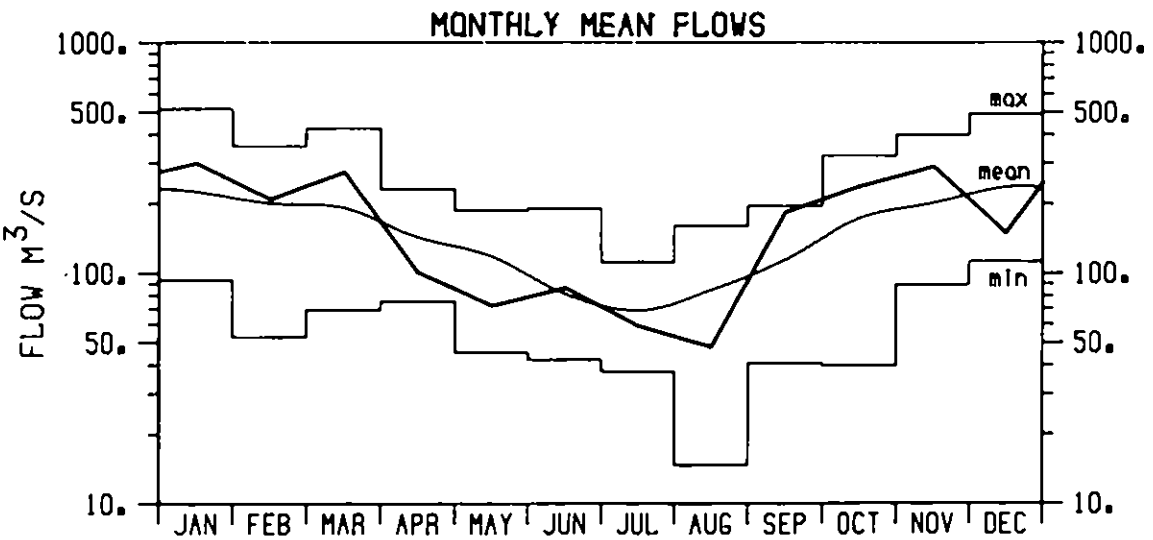
Previous record 1958-1980 Catchment area 826.2 km



OPTION 11 HYDROGRAPH OF MONTHLY MEAN FLOWS

15006 TAY AT BALLATHIE 1981

Previous record 1953-1980 Catchment area 4587.1km^2



OPTION 12 FLOW DURATION STATISTICS

FLOW DURATION TABLE

050001 TAW AT UMBERLEIGH GAUGED FLOWS USED

1 DAY MEAN FLOW EXCEEDED STATED AMOUNT IN CUMECS FOR GIVEN PERCENTAGE OF TIME

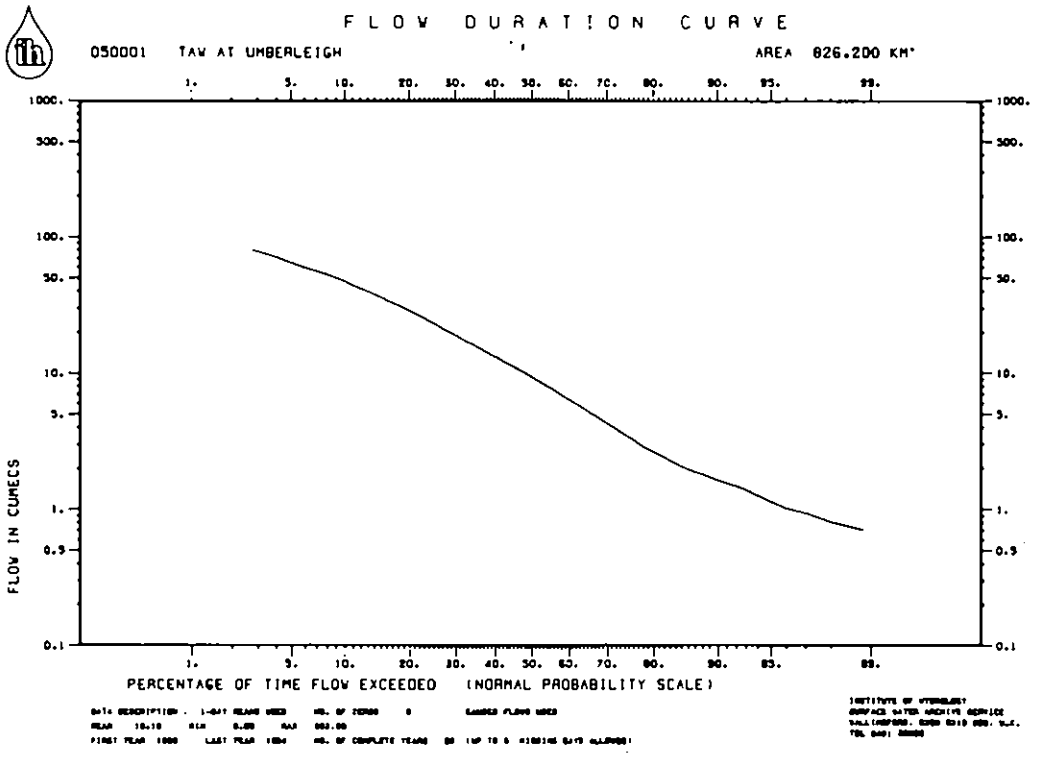
	0	1	2	3	4	5	6	7	8	9
0		112.407	88.953	78.112	70.827	64.442	59.554	56.125	53.098	50.148
10	47.474	44.176	41.967	39.864	37.968	36.202	34.286	32.813	31.533	30.169
20	28.878	27.620	26.450	25.366	24.302	23.328	22.350	21.282	20.533	19.756
30	19.052	18.294	17.592	16.975	16.450	15.836	15.263	14.737	14.189	13.691
40	13.254	12.847	12.340	11.914	11.529	11.129	10.807	10.436	10.088	9.725
50	9.366	9.020	8.678	8.390	8.073	7.801	7.535	7.219	6.945	6.673
60	6.428	6.187	5.971	5.755	5.522	5.313	5.090	4.900	4.691	4.492
70	4.292	4.101	3.916	3.738	3.564	3.398	3.239	3.055	2.915	2.783
80	2.659	2.534	2.418	2.287	2.178	2.071	1.976	1.890	1.822	1.734
90	1.647	1.567	1.493	1.391	1.268	1.141	1.019	0.941	0.808	0.685

MAX FLOW= 343.800 MIN FLOW= 0.200 MEAN FLOW= 18.160 CATCHMENT AREA 826.2 SQ.KM

NUMBER OF ZEROS= 0 NUMBER OF VALUES USED= 9497

FIRST YEAR USED= 1959 LAST YEAR USED= 1984
NUMBER OF YEARS USED= 26

ONLY YEARS CONTAINING NOT MORE THAN 5 MISSING DAYS USED



OPTION 13 TABLE OF GAUGING STATION REFERENCE INFORMATION

NUMBER	RIVER	STATION	GRID REF	OPERATOR	RECORD 1ST YEAR	RECORD LAST YEAR	STN TYPE	BASIN AREA SQ KM	LEVEL DTM AOD	MAX ALT AOD	ABSTRACTIONS & RETURNS	FM
048001	FOWEY	TREALIVESTEPS	SX227698	SWWA	1969		CC	36.8	187.86	420	SRPC	
048003	FAL	TRELONY	SW921447	SWWA	1977		FLVA	87.0	8.95	226	GRI	
048004	WARLEGGAN	TRENGOFFE	SX159674	SWWA	1969		CC	25.3	70.26	306	G	
048005	KENWYN	TRURO	SW820450	SWWA	1968		CC	19.1	7.16	152	G	
048006	CUBER	HELSTON	SW654273	SWWA	1966		VA	40.1	4.69	251	PG I	
048007	KENNALL	PONSANOOTH	SW762377	SWWA	1966		C	26.6	13.56	251	SRPG I	
048009	ST NEOT	CRAIGSHILL WOOD	SX184662	SWWA	1971		CC	22.7	70.53	339	GR	
048010	SEATON	TRERDWNBRIDGE	SX299596	SWWA	1972		CC	36.1	26.80	369	G I	
048011	FOWEY	RESTORMEL TWO	SX098624	SWWA	1972		CC	169.1	9.24	420	SRPGR I	

OPTION 14 TABLE OF HYDROMETRIC STATISTICS

STATION NUMBER	TERM	ARF 1961 1970 MM	AREAL RAIN FALL MM	ANNUAL GAUGED RUNOFF MM	MEAN GAUGED FLOW CU M/S	NO. YRS REC	XPOR MEAN FLOW	HIGHEST DAILY MEAN CU M/S	DATE	LOWEST DAILY MEAN CU M/S	DATE	10 %ILE CU M/S	50 %ILE CU M/S	95 %ILE CU M/S
021005	POR	1320	1250	676	7.99	15		183.50	30/01/74	1.19	07/10/72	16.20	5.39	1.97
	1977		1436	829	9.80		123	92.38	31/10	1.39	22/08	20.26	7.03	1.65
	1978		1317	757	8.95		112	75.74	15/11	1.75	19/06	20.23	6.03	2.25
	1979		1367	913	10.80		135	82.15	26/11	2.23	23/07	24.29	8.77	2.60
	1980		1288	793	9.38		117	49.29	24/11	2.01	01/06	19.96	7.00	2.19
021006	POR	1227	1160	694	32.99	15		393.40	30/01/74	3.46	07/10/72	68.79	22.22	6.23
	1977		1277	845	40.20		122	555.30	31/10	4.13	18/08	84.42	29.40	5.44
	1978		1244	731	34.77		105	320.30	15/11	5.62	20/06	78.17	22.28	7.61
	1979		1230	881	41.90		127	262.70	26/11	7.21	23/07	93.82	27.64	8.51
	1980		1187	746	35.48		108	171.60	20/11	6.37	19/05	78.63	24.91	7.46
021007	POR	1413	1321	878	13.89	15		209.80	30/01/74	0.57	07/09/76	31.59	8.50	1.71
	1977		1524	1108	17.54		126	288.30	31/10	0.67	18/08	41.40	10.94	1.11
	1978		1394	886	14.02		101	210.80	15/11	0.97	19/07	32.60	8.24	1.21
	1979		1420	1105	17.48		126	120.90	26/11	1.42	24/07	41.36	10.83	1.83
	1980		1386	944	14.93		107	98.07	20/11	1.16	19/05	35.27	9.16	1.55
021008	POR	1006	949	504	17.74	16		308.66	06/03/63	1.71	22/06/76	38.44	11.05	2.89
	1977		1019	604	21.25		120	167.20	31/10	1.99	17/08	44.36	14.81	2.58
	1978		1008	541	19.03		107	177.90	15/11	2.04	20/07	43.34	11.09	2.53
	1979		1005	693	24.40		136	273.10	25/03	2.22	05/06	55.84	15.31	3.87
	1980		982	586	20.62		116	122.00	20/11	3.35	03/06	43.35	14.30	4.14

NOTE: This example illustrates only a limited amount of the statistical information that may be output.

OPTION 15 GAUGING STATION DESCRIPTION

48001 FOWEY AT TREALIVESTEPS
Compound Crump weir. Total crest breadth 7.0 m. Low flow crest breadth 1.5 m. Unreliable records from 1957

48003 FAL AT TRELONY
Velocity-area station with low flow flume. Unreliable records from 1961

48004 WARLEGGAN AT TRENGOFFE
Compound Crump weir. Total crest breadth 10.0 m. Low flow crest breadth 1.5 m

48005 KENWYN AT TRURO
Compound Crump weir. Total crest breadth 4.3 m. Low flow crest breadth 1.2 m

48006 CUBER AT HELSTON
Velocity-area station. Modified in 1977 by the construction of a low level bed control

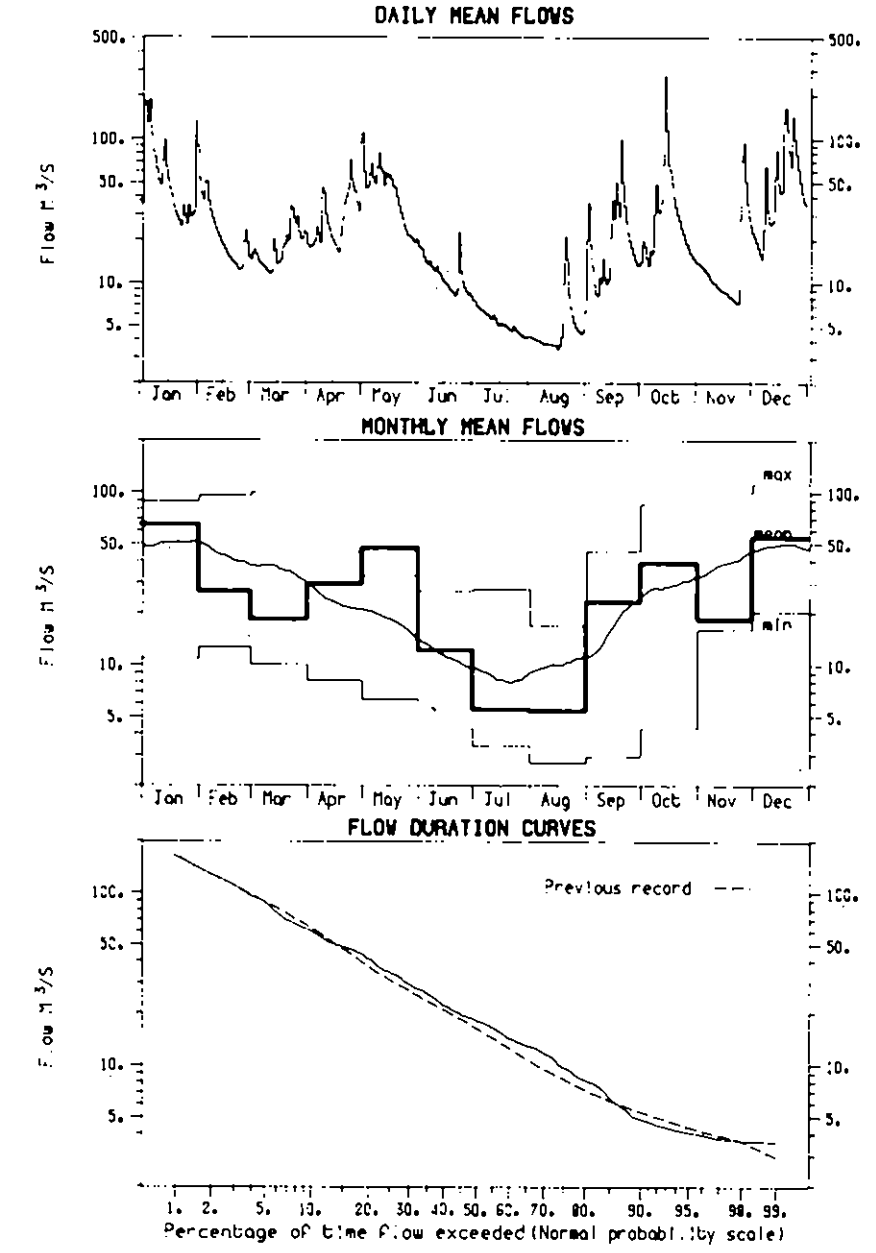
48007 KENNALL AT PONSANOOTH
Single crest Crump weir 4.9 m broad

48009 ST NEOT AT CRAIGSHILL WOOD
Compound Crump weir. Total crest breadth 7.2 m. Low flow crest breadth 1.8 m

48010 SEATON AT TRERDWNBRIDGE
Compound Crump weir. Total crest breadth 11.0 m. Low flow crest breadth 3.0 m

48011 FOWEY AT RESTORMEL TWO
Compound Crump weir. Total crest breadth 16.5 m. Low flow crest breadth 3.5 m

OPTION 16 RIVER FLOW PATTERN PLOTS



Station number	River name	National Grid reference	Measuring authority	Area (sq km)
002001	Helmsdale	NC 997181	HRPB	551 4
003001 *	Shin	NC 581062	NSHE	494 8
003002	Carron	NH 490921	HRPB	241.1
003003	Oykel	NC 403001	HRPB	330 7
003004	Cassley	NC 472022	HRPB	187.5
003005	Shin	NH 574974	HRPB	575 0
004001	Conon	NH 482547	HRPB	961 8
004003	Alness	NH 654695	HRPB	201 0
004004	Blackwater	NH 455563	HRPB	336 7
005001 *	Beauly	NH 428405	NSHE	849 5
006001 *	Ness	NH 639410	NSHE	1792 3
006003 *	Monston	NH 416169	HRPB	391 0
006006 *	Allt Bhlaraidh	NH 377168	NSHE	27.5
006007	Ness	NH 645427	HRPB	1839 1
006008	Enrick	NH 450300	HRPB	105.9
007001	Findhorn	NH 826337	HRPB	415 6
007002	Findhorn	NJ 018583	HRPB	781 9
007003	Lossie	NJ 198626	NERPB	216 0
007004	Nairn	NH 882551	HRPB	313 0
007005	Divie	NJ 005480	HRPB	165 0
008001 *	Spey	NJ 278439	NERPB	2654 7
008002	Spey	NH 881082	NERPB	1011 7
008003 *	Spey	NN 759996	NERPB	533 8
008004	Avon	NJ 186352	NERPB	542 8
008005	Spey	NH 946191	NERPB	1267 8
008006	Spey	NJ 318518	NERPB	2861.2
008007	Spey	NN 687967	NERPB	400 4
008008	Tromie	NN 789995	NERPB	130 3
008009	Dulnain	NH 977247	NERPB	272 2
008010	Spey	NJ 034268	NERPB	1748 8
009001	Deveron	NJ 532464	NERPB	441 6
009002	Deveron	NJ 705498	NERPB	954 9
009003	Isla	NJ 494506	NERPB	176 1
009004	Bogie	NJ 519373	NERPB	179 0
010001	Ythan	NJ 924308	NERPB	448 1
010002	Ugie	NK 101485	NERPB	325 0
010003	Ythan	NJ 947303	NERPB	523 0
011001	Don	NJ 887141	NERPB	1273 0
011002	Don	NJ 756201	GRWD	787 0
011003	Don	NJ 566170	NERPB	499 0
012001	Dee	NO 635956	NERPB	1370 0
012002	Dee	NO 798983	NERPB	1844 0
012003	Dee	NO 343965	NERPB	690 0
012004	Gernock Burn	NO 324956	NERPB	30 3
012005	Muick	NO 364947	NERPB	110 0
012006	Gairn	NO 352971	NERPB	150 0
012007	Dee	NO 098895	NERPB	289 0
012008	Feugh	NO 687928	NERPB	229 0
013001	Bervie	NO 826733	NERPB	123 0
013002	Luther Water	NO 660668	TRPB	138 0
013003	South Esk	NO 583593	TRPB	487 0
013004	Prosen Water	NO 396586	TRPB	104 0
013005	Lunan Water	NO 655494	TRPB	124 0
013007	North Esk	NO 699640	TRPB	730 0
013008	South Esk	NO 600596	TRPB	490 0
013009	West Water	NO 592680	TRPB	150 0
014001 *	Eden	NO 415'58	TRPB	307 4
014002	Dighty Water	NO 477324	TRPB	126 9
014005	Motray Water	NO 441224	TRPB	52 0
015001	Isla	NO 187647	TRWS	70 7
015002	Newton Burn	NO 230605	TRWS	15 4
015003	Tay	NO 082395	TRPB	3211 0
015004	Inzion	NO 280559	TRWS	24.7
015005	Melgan	NO 275558	TRWS	40 9
015006	Tay	NO 147367	TRPB	4587 1
015007	Tay	NN 924534	TRPB	1149 4
015008	Dean Water	NO 340479	TRPB	177 1
015010	Isla	NO 295466	TRPB	366 5
015011	Lyon	NN 786486	TRPB	391.1
015012	Tummel	NN 940577	TRPB	1649 0
015013	Almond	NO 067258	TRPB	174 8
015016	Tay	NN 782467	TRPB	600 9
015017	Braan	NN 979406	TRPB	197 0
015018 *	Lyon	NN 534448	NSHE	161 4
015021	Lunan Burn	NO 182400	TRPB	94 0
015023	Braan	NO 014422	TRPB	210 0
015024	Dochart	NN 567320	TRPB	239 0
015025	Erichi	NO 174472	TRPB	432 0
016001	Earn	NN 933167	TRPB	590 5
016002 *	Earn	NN 754216	TRPB	176 9
016003	Ruchill Water	NN 764204	TRPB	99.5
016004	Earn	NO 043184	TRPB	782 2
017001	Carron	NS 832820	FRPB	122 3
017002	Leven	NO 369006	FRPB	424 0
017003	Bonny Water	NS 824804	FRPB	50 5
017004	Ore	NT 330997	FRPB	162 0
017005	Avon	NS 952797	FRPB	195 3
017012	Red Burn	NS 788780	FRPB	22 0
017014 *	Leven	NT 172993	FRPB	158 0
018001	Allan Water	NN 792053	FRPB	161 0
018002	Devon	NS 858960	FRPB	181 0
018003	Teith	NN 725011	FRPB	518 0
018005	Allan Water	NS 786980	FRPB	210 0
018007	Devon	NO 0110'8	FRPB	69 5
018008	Leny	NN 585096	FRPB	190 0
018010	Forth	NS 714953	FRPB	397 0
018011	Forth	NS 775955	FRPB	1036 0
018012	Ardoch Burn	NN 729008	FRPB	48 0
018013	Black Devon	NS 914924	FRPB	67 0
018014	Bannockburn	NS 812908	FRPB	23 7
018015	Eas Gobhain	NN 602070	FRPB	202 0
019001	Almond	NT 185752	FRPB	369 0
019002	Almond	NT 004652	FRPB	43 8
019003	Breich Water	NT 014639	FRPB	51 8
019004	North Esk	NT 252616	FRPB	81 8
019005	Almond	NT 086686	FRPB	229 0
019006	Water	NT 228732	FRPB	107 0
019007	Esk	NT 339723	FRPB	330 0
019008	South Esk	NT 325623	FRPB	112 0
019009	Bog Burn	NT 026591	FRPB	8 5
019010	Braid Burn	NT 273707	FRPB	16 2
019011	North Esk	NT 333678	FRPB	137 0
019012	Water of Leith	NT 212688	FRPB	72 0
019014	Brox Burn	NT 114732	FRPB	34.1
019017	Gogar Burn	NT 161733	FRPB	38 8
020001	Tyne	NT 591768	FRPB	307 0
020002	West Peffer Burn	NT 489811	FRPB	26 2
020003	Tyne	NT 456689	FRPB	161 0
020004	East Peffer Burn	NT 610824	FRPB	31 1
020005	Burns Water	NT 457688	FRPB	93 0
020006	Bel Water	NT 645768	FRPB	51 8
020007	Gifford Water	NT 511717	FRPB	64 0
020008	Brox Burn	NT 697776	FRPB	19 7
021001 *	Fruid Water	NT 088205	LRWD	23 7
021002 *	Whiteadder Water	NT 663633	LRWD	45 6
021003	Tweed	NT 257400	TWRP	694 0
021004	Watch Water	NT 664586	BRWD	10 7
021005	Tweed	NT 206397	TWRP	373 0
021006	Tweed	NT 498334	TWRP	1500 0
021007	Ettrick Water	NT 486315	TWRP	499 0
021008	Teviot	NT 702280	TWRP	1110 0
021009	Tweed	NT 898477	TWRP	4390 0
021010	Tweed	NT 588370	TWRP	2080 0
021011	Yarrow Water	NT 439277	TWRP	231 0
021012	Teviot	NT 522159	TWRP	323 0
021013	Gala Water	NT 479374	TWRP	207 0
021014	Tweed	NT 109285	TWRP	139 0
021015	Leader Water	NT 565388	TWRP	239 0
021016	Eye Water	NT 942635	TWRP	119 0
021017	Ettrick Water	NT 234132	TWRP	37 5
021018	Lyne Water	NT 209401	TWRP	175 0
021019	Manor Water	NT 217369	TWRP	61 6
021020	Yarrow Water	NT 309247	TWRP	155 0
021021	Tweed	NT 752354	TWRP	3330 0
021022	Whiteadder Water	NT 881550	TWRP	503 0
021023	Leet Water	NT 839396	TWRP	173 0
021024	Jed Water	NT 655214	TWRP	139 0
021025	Ale Water	NT 634244	TWRP	174 0
021026	Tima Water	NT 278138	TWRP	31 0
021027	Blackadder Water	NT 826530	TWRP	159 0
021030	Meggat Water	NT 231232	TWRP	56 2
021031 *	Till	NT 927396	NWA	648 0
021032	Glen	NT 919310	NWA	198 9
021034	Yarrow Water	NT 288244	TWRP	116 0
022001	Coquet	NU 234044	NWA	569 8
022002 *	Coquet	NT 870083	NWA	59 5
022003 *	Usway Burn	NT 886077	NWA	21 4
022004 *	Aln	NU 211129	NWA	205 0
022006	Blyth	NZ 243800	NWA	269 4
022007	Wansbeck	NZ 175858	NWA	287 3
022008	Alwin	NT 925063	NWA	27 7
022009	Coquet	NU 067016	NWA	346 0
023001	Tyne	NZ 038617	NWA	2175 6
023002	Derwent	NZ 041508	NWA	118 0
023003	North Tyne	NY 906732	NWA	1007 5
023004	South Tyne	NY 856847	NWA	751 1
023005	North Tyne	NY 776861	NWA	284 9
023006	South Tyne	NY 672611	NWA	321.9
023007	Derwent	NZ 168581	NWA	242 1
023008	Rede	NY 868832	NWA	343.8
023009	South Tyne	NY 716465	NWA	118 5
023010 *	Tarset Burn	NY 789879	NWA	96 0
023011	Kielder Burn	NY 644946	NWA	58 8
023012 *	East Allen	NY 802583	NWA	88 0
023013	West Allen	NY 791583	NWA	75 1
023014 *	North Tyne	NY 631931	NWA	27 0
023015 *	North Tyne	NY 924721	NGWC	1043 8
024001	Wear	NZ 284376	NWA	657 8
024002	Gaunless	NZ 215306	NWA	93 0
024003	Wear	NY 984391	NWA	171.9
024004	Bedburn Beck	NZ 118322	NWA	74 9
024005	Browney	NZ 259387	NWA	178 5
024006 *	Hookhope Burn	NY 952390	NWA	36 5
024007	Browney	NZ 165462	NWA	44 6
024008	Wear	NZ 174309	NWA	455 0
024009	Wear	NZ 283512	NWA	1008 3
025001	Tees	NZ 259137	NWA	818 4
025002 *	Tees	NY 932260	NWA	217 3
025003 *	Trout Beck	NY 759336	NWA	11 4
025004	Skerne	NZ 284129	NWA	250 1
025005	Leven	NZ 445122	NWA	198 3
025006	Greta	NZ 034122	NWA	86 1
025007 *	Clow Beck	NZ 282101	NWA	78 2
025008	Tees	NZ 047166	NWA	509 2
025009	Tees	NZ 364105	NWA	1264 0
025010 *	Baydale Beck	NZ 260156	NWA	31 1
025011	Langdon Beck	NY 852309	NWA	13 0
025012	Harwood Beck	NY 849309	NWA	25 1
025013 *	Billingham Beck	NZ 408237	NWA	61 4
025014 *	Mordon Stell	NZ 323274	NWA	2 5
025015 *	Woodham Burn	NZ 285263	NWA	29 1
025018	Tees	NY 950250	NWA	242 1
025019	Leven	NZ 585087	NWA	14 8
025020	Skerne	NZ 292238	NWA	147.0
025021	Skerne	NZ 318285	NWA	70 1
025022	Balder	NY 931182	NWA	20 4
025023	Tees	NY 813288	NWA	58 2
025024 *	Chapel Beck	NZ 599163	NWA	13 4
025025	Hunderbeck	NY 933181	FBA	8 6
025026	Thorsgill	NZ 047151	FBA	4 9
025027	Carl Beck	NY 945229	FBA	2 2
025028	Greater Eggleshop	NY 985287	FBA	11 7
026001 *	West Beck	TA 064560	YWA	192 0
026002	Hull	TA 080498	YWA	378 1

Station number	River name	National Grid reference	Measuring authority	Area (sq km)
026003	Foston Beck	TA 093548	YWA	57 2
026004 *	Gypsey Race	TA 165675	YWA	253 8
026005	Gypsey Race	TA 137677	YWA	240 0
026006	Elmswell Beck	TA 009575	YWA	136 0
027001	Nidd	SE 428530	YWA	484 3
027002	Wharfe	SE 422473	YWA	758 9
027003	Aire	SE 534255	YWA	1932 1
027004 *	Calder	SE 385220	YWA	899 0
027005	Nidd	SE 141683	YWA	113 7
027006	Don	SK 390910	YWA	373 0
027007	Ure	SE 356671	YWA	914 6
027008	Swale	SE 415748	YWA	1345 6
027009	Ouse	SE 568554	YWA	3315 0
027010 *	Hodge Beck	SE 627944	YWA	18 9
027011 *	Washburn	SE 219488	YWA	87 3
027012 *	Hebden Water	SD 973309	YWA	36 0
027013	Ewden Beck	SK 289957	YWA	26 4
027014 *	Rye	SE 743771	YWA	679 0
027015 *	Derwent	SE 714557	YWA	1634 3
027016	Little Don	SK 253992	YWA	38 6
027017	Loxley	SK 286906	YWA	43 5
027018 *	Ryburn	SE 025187	YWA	10 7
027019 *	Booth Dean Clough	SE 033166	YWA	15 9
027020	Scout Dike Stream	SE 236047	YWA	15 2
027021 *	Don	SE 569040	YWA	1258 2
027022 *	Don	SK 427928	YWA	826 0
027023	Dearne	SE 350073	YWA	118 9
027024 *	Swale	NZ 146006	YWA	381 0
027025	Rother	SK 432857	YWA	352 2
027026	Rother	SK 394744	YWA	165 0
027027 *	Wharfe	SE 112481	YWA	443 0
027028	Aire	SE 281340	YWA	691 5
027029	Calder	SE 124219	YWA	341 9
027030	Dearne	SE 477020	YWA	310 8
027031	Colne	SE 174199	YWA	245 0
027032	Hebden Beck	SE 025643	YWA	6 8
027033	Sea Cut	TA 028908	YWA	33 2
027034	Ure	SE 190860	YWA	510 2
027035	Aire	SE 013457	YWA	282 3
027036 *	Derwent	SE 789715	YWA	1421 0
027038	Costa Beck	SE 774838	YWA	7 8
027039 *	Holme	SE 112069	YWA	9 1
027040	Doe Lea	SK 443746	YWA	67 9
027041	Derwent	SE 731587	YWA	1586 0
027042	Dove	SE 705855	YWA	51 8
027043	Wharfe	SE 092494	YWA	427 0
027044	Blackfoss Beck	SE 725475	YWA	46 0
027047	Snaizeholme Beck	SD 833883	YWA	10 2
027048	Derwent	SE 990853	YWA	127 0
027049	Rye	SE 696791	YWA	227 0
027050	Esk	NZ 865081	YWA	308 0
027051	Crimple	SE 284519	YWA	8 1
027052	Whitting	SK 376747	YWA	50 2
027053	Nidd	SE 230603	YWA	217 6
027054	Hodge Beck	SE 652902	YWA	37 1
027055	Rye	SE 560883	YWA	131 7
027056	Pickering Beck	SE 791819	YWA	68 6
027057	Seven	SE 736821	YWA	121 6
027058	Riccal	SE 661810	YWA	57 6
027059	Laver	SE 301710	YWA	87 5
027060	Kyle	SE 509602	YWA	167 6
027061	Colne	SE 136161	YWA	72 3
027062	Nidd	SE 482561	YWA	516 0
027063	Dibb	SE 057639	YWA	25 5
027064	Went	SE 551163	YWA	83 7
027065	Holme	SE 142157	YWA	97 4
027066	Blackburn Brook	SK 393914	YWA	42 8
027067	Sheaf	SK 357863	YWA	49 1
027068	Ryburn	SE 035188	YWA	33 0
027069	Wiske	SE 375844	YWA	215 5
027071	Swale	SE 425734	YWA	1363 0
027072	Worth	SE 064408	YWA	71 7
027073	Brompton Beck	SE 936794	YWA	12 9
027074	Spen Beck	SE 225210	YWA	46 3
028001	Derwent	SK 198851	STWA	126 0
028002	Blithe	SK 109192	STWA	163 0
028003	Tame	SP 169915	STWA	408 0
028004	Tame	SP 206935	STWA	795 0
028005	Tame	SK 173105	STWA	1475 0
028006	Trent	SJ 994231	STWA	325 0
028007	Trent	SK 448299	STWA	4400 0
028008	Dove	SK 112397	STWA	399 0
028009	Trent	SK 620399	STWA	7486 0
028010	Derwent	SK 356363	STWA	1054 0
028011	Derwent	SK 296586	STWA	690 0
028012	Trent	SK 131177	STWA	1229 0
028014 *	Sow	SJ 975215	STWA	591 0
028015	Idle	SK 690895	STWA	529 0
028016	Ryton	SK 641897	STWA	231 0
028017	Devon	SK 787486	STWA	284 0
028018	Dove	SK 235288	STWA	883 2
028019	Trent	SK 239704	STWA	3072 0
028020	Churnet	SK 103389	STWA	236 0
028021 *	Derwent	SK 443327	STWA	1175 0
028022	Trent	SK 801601	STWA	8231 0
028023 *	Wye	SK 182696	STWA	154 0
028024	Wreake	SK 615124	STWA	413 8
028025	Sence	SP 321996	STWA	169 4
028026	Anker	SK 263034	STWA	368 0
028027	Erewash	SK 482364	STWA	180 7
028028	Soar	SK 603109	STWA	480 0
028029	Kingston Brook	SK 503277	STWA	57 0
028030	Black Brook	SK 466171	STWA	8 4
028031	Manifold	SK 140507	STWA	148 5
028032	Meden	SK 558680	STWA	62 8
028033	Dove	SK 063668	STWA	8 0
028034	Maun	SK 681728	STWA	161 0
028035	Leen	SK 549392	STWA	111 0
028036	Poulter	SK 700752	STWA	128 2
028038	Manifold	SK 106595	STWA	46 0
028039	Rea	SP 071847	STWA	74 0
028040	Trent	SJ 892467	STWA	53 2
028041	Hamps	SK 082502	STWA	39 6
028042 *	Churnet	SJ 979520	STWA	136 0
028043	Derwent	SK 261683	STWA	335 0
028044	Poulter	SK 563714	STWA	65 0
028045	Meden	SK 681732	STWA	106 2
028046	Dove	SK 146509	STWA	83 0
028047	Oldcoates Dyke	SK 615878	STWA	85 2
028048	Amber	SK 376520	STWA	139 0
028049	Ryton	SK 575794	STWA	77 0
028050	Torne	SE 646012	STWA	141 0
028051	Soar	SP 551985	STWA	202 0
028052	Sow	SJ 883270	STWA	163 0
028053	Penk	SJ 923144	STWA	272 0
028054	Sence	SP 566985	STWA	133 0
028055	Ecclesbourne	SK 320447	STWA	50 4
028056	Rothley Brook	SK 580121	STWA	94 0
028058	Henmore Brook	SK 188486	STWA	42 0
028059	Maun	SK 548623	STWA	28 8
028060	Dover Beck	SK 653479	STWA	69 0
028061	Churnet	SJ 983520	STWA	139 0
028066	Cole	SP 183874	STWA	130 0
028067	Derwent	SK 438316	STWA	1177 5
028070	Burbage Brook	SK 259804	STWA	9 1
028071	Amber	SK 379598	STWA	40 0
028072	Great	SK 711541	STWA	46 2
028073	Ashop	SK 171896	STWA	42 0
028074	Soar	SK 492263	STWA	1292 0
028075	Derwent	SK 169951	STWA	17 0
028077	Spondon Outfall	SK 395345	STWA	
028079	Meece	SJ 874291	STWA	86 3
028080	Tame	SP 207937	STWA	799 0
028081	Tame	SP 012958	STWA	169 0
028082	Soar	SP 542973	STWA	183 9
029001	Waithe Beck	TA 253016	AWA	108 3
029002	Great Eau	TF 416793	AWA	77 4
029003	Lud	TF 337879	AWA	55 2
029004	Ancholme	TF 032911	AWA	54 7
029005	Rase	TF 032912	AWA	69 2
029009	Ancholme	TF 033877	AWA	27 2
030001	Witham	SK 842480	AWA	297 9
030002	Barlings Eau	TF 066766	AWA	210 1
030003	Bain	TF 241611	AWA	197 1
030004	Partney Lymn	TF 402676	AWA	61 6
030005	Witham	SK 927335	AWA	126 1
030006	Slea	TF 088485	AWA	48 4
030011	Bain	TF 246795	AWA	62 5
030012	Stainfield Beck	TF 127739	AWA	37 4
030013	Heighington Beck	TF 042696	AWA	21 2
030014	Pointon Lode	TF 128313	AWA	11 9
030015	Cringle Brook	SK 925297	AWA	50 5
030017	Witham	SK 929246	AWA	51 3
030018	Honington Beck	SK 936433	AWA	22 3
031001	Eye Brook	SP 853941	CDWC	60 1
031002	Glen	TF 106149	AWA	341 9
031004	Welland	TF 095078	AWA	717 4
031005	Welland	SP 970997	AWA	417 0
031006	Gwash	TF 038097	AWA	150 0
031007	Welland	SP 948999	AWA	398 9
031008	East Glen	TF 068160	AWA	136 2
031009	West Glen	TF 074113	AWA	173 0
031010	Chater	SK 961030	AWA	68 9
031011	West Glen	SK 987281	AWA	31 6
031012	Tham	TF 016179	AWA	24 9
031013	East Glen	TF 038273	AWA	71 5
031014	Grimsthorpe Brook	TF 046203	AWA	21 0
031015	Chater	SK 848037	AWA	18 5
031016	North Brook	SK 957089	AWA	36 5
031017	Stanton Brook	SP 759918	AWA	42 7
031018	Langton Brook	SP 755908	AWA	55 1
031019	Medbourne Brook	SP 798939	AWA	27 9
031020	Morcott Brook	SK 939018	AWA	19 6
031021	Welland	SP 819915	AWA	250 7
031022	Jordan	SP 740867	AWA	20 8
031023	West Glen	SK 965258	AWA	4 4
031024	Holywell Brook	TF 026148	AWA	22 3
031025	Gwash South Arm	SK 875051	AWA	24 5
031026	Egleton Brook	SK 878073	AWA	2 5
031027	Bourne Eau	TF 107199	AWA	10 6
031028	Gwash	SK 951082	AWA	76 5
032001	Nene	TL 166972	AWA	1634 3
032002	Willow Brook	TL 067933	AWA	89 6
032003	Harpers Brook	SP 983799	AWA	74 3
032004	Ise Brook	SP 898715	AWA	194 0
032006	Nene/Kislingbury	SP 721592	AWA	223 0
032007	Nene/Brampton	SP 747617	AWA	232 8
032008	Nene/Kislingbury	SP 627607	AWA	107 0
032009	Willow Brook	SP 981967	CDWC	62 7
032012	Wootton Brook	SP 736571	AWA	53 3
032015	Willow Br Central	SP 898892	AWA	7 1
032016	Willow Brook Sth	SP 901886	AWA	7 6
032018	Ise	SP 861831	AWA	62 4
032019	Slade Brook	SP 873763	AWA	58 3
032020	Wittering Brook	TL 089995	AWA	46 9
032023	Grendon Brook	SP 883633	AWA	47 5
032024	Southwick Brook	TL 025921	AWA	20 5
032025	Nene/Wilton	SP 620658	AWA	63 4
032026	Nene/Brampton	SP 736707	AWA	58 0
032027	Billing Brook	TL 117949	AWA	24 3
032029 *	Flore	SP 660610	AWA	7 0
032030	Coton Mill Stream	SP 669714	AWA	8 5
032031	Wootton Brook	SP 726577	AWA	73 9
033001 *	Bedford Ouse	TL 369727	AWA	3030 0
033002	Bedford Ouse	TL 055495	AWA	1460 0
033003	Cam	TL 508657	AWA	803 0
033004	Lark	TL 648760	AWA	466 2
033005	Bedford Ouse	SP 736353	AWA	388 5
033006	Wissey	TL 771965	AWA	274 5
033007	Nar	TF 723119	AWA	153 3
033008 *	Little Ouse	TL 860837	AWA	699 0
033009	Bedford Ouse	SP 951565	AWA	1320 0
033011	Little Ouse	TL 892801	AWA	128 7
033012	Kym	TL 155631	AWA	137 5
033013	Sapiston	TL 896791	AWA	205 9
033014	Lark	TL 758730	AWA	272 0
033015	Ouzel	SP 882408	AWA	277 1
033016	Cam	TL 450593	AWA	761 5
033018	Tove	SP 714488	AWA	138 1
033019	Thet	TL 880830	AWA	316 0
033020	Alconbury Brook	TL 208717	AWA	201 5

Station number	River name	National Grid reference	Measuring authority	Area (sq km)
033021	Rhee	TL 415523	AWA	303 0
033022	Ivel	TL 153509	AWA	541.3
033023	Lea Brook	TL 682733	AWA	101 8
033024	Cam	TL 466506	AWA	194 0
033025 *	Babingly	TF 696258	AWA	39 6
033026	Bedford Ouse	TL 216669	AWA	2570 0
033027	Rhee	TL 333485	AWA	119.1
033028	Flit	TL 143393	AWA	119 6
033029	Stringside	TF 716006	AWA	93 5
033031	Broughton Brook	SP 889408	AWA	66 6
033032	Heacham	TF 685375	AWA	89.3
033033	Hiz	TL 190379	AWA	108 0
033034	Little Ouse	TL 851844	AWA	699 3
033035	Ely Ouse	TF 588010	AWA	3430 0
033037	Bedford Ouse	SP 877443	AWA	800 0
033039	Bedford Ouse	TL 160535	AWA	1660 0
033040	Rhee	TL 287401	AWA	0
033044	That	TL 857855	AWA	277 8
033045	Wittle	TM 027878	AWA	28.3
033046	That	TL 996923	AWA	145 3
033049 *	Stanford Water	TL 834953	AWA	43.5
033050	Snail	TL 631703	AWA	60 6
033051	Cam	TL 505428	AWA	141 0
033052	Swaffham Lode	TL 553628	AWA	38 4
033054	Babingley	TF 680252	AWA	47 7
033055	Granta	TL 510504	AWA	98.7
033056	Quy Water	TL 531627	AWA	76 4
033057	Ouzel	SP 917241	AWA	119 0
033058	Ouzel	SP 883322	AWA	215 0
033059	Cut-off Channel	TL 729757	AWA	
033060	Kings Dike	TL 208973	AWA	
033062	Guilden Brook	TL 403457	AWA	
033063	Little Ouse	TL 955807	AWA	101 0
033064	Wheddon Brook	TL 359466	AWA	16 0
033065	Hiz	TL 185290	AWA	6 8
033066	Granta	TL 570464	AWA	59 8
033067	New River	TL 608696	AWA	19 6
033068	Cheney Water	TL 298411	AWA	5 0
034001	Yare	TG 182082	AWA	231 8
034002	Tas	TM 226994	AWA	146 5
034003	Bure	TG 192298	AWA	164 7
034004	Wensum	TG 177128	AWA	536 1
034005	Tud	TG 170113	AWA	73 2
034006	Waveney	TM 229811	AWA	370 0
034007	Dove	TM 174772	AWA	133 9
034008	Ant	TG 331270	AWA	49 3
034010	Waveney	TM 168782	AWA	149 4
034011	Wensum	TF 919294	AWA	127 1
034012	Burn	TF 842428	AWA	60 0
034013	Waveney	TM 364917	AWA	670 0
034014	Wensum	TG 020184	AWA	383 0
034018	Stiffkey	TF 944414	AWA	77 1
034019	Bure	TG 267194	AWA	313 0
035001	Gipping	TM 154441	AWA	310 8
035002	Deben	TM 322534	AWA	163 1
035003	Alde	TM 360601	AWA	63.9
035004	Ore	TM 359583	AWA	54 9
035008	Gipping	TM 058578	AWA	128 9
035009 *	Blyth	TM 425766	AWA	96 4
035010	Gipping	TM 127465	AWA	298 0
035011	Belstead Brook	TM 143420	AWA	40 4
035013	Blyth	TM 406769	AWA	92 9
036001	Stour	TM 042340	EWC	844 3
036002	Glem	TL 846472	AWA	87 3
036003	Box	TL 985378	AWA	53 9
036004	Chad Brook	TL 868459	AWA	47 4
036005	Brett	TM 025429	AWA	156 0
036006	Stour	TM 020344	AWA	578 0
036007	Belchamp Brook	TL 848421	AWA	58 6
036008	Stour	TL 827463	AWA	224 5
036009	Brett	TL 914525	AWA	25 7
036010	Bumpstead Brook	TL 689418	AWA	28 3
036011	Stour Brook	TL 696441	AWA	34 5
036012	Stour	TL 708450	AWA	78 2
036013	Brett	TM 032354	AWA	195 0
036015	Stour	TL 897358	AWA	480 7
036016 *	Ramsey ₹	TM 208288	AWA	13 9
036017	Ely Ouse outfall	TL 681559	AWA	
037001	Roding	TQ 415884	TWA	303 3
037002	Chelmer	TL 794090	AWA	533 9
037003	Ter	TL 786107	AWA	77 8
037004 *	Blackwater	TL 836092	AWA	337 0
037005	Colne	TL 962261	AWA	238.2
037006	Can	TL 690072	AWA	228 4
037007	Wid	TL 686060	AWA	'36 3
037008	Chelmer	TL 713071	AWA	'90 3
037009	Brain	TL 818147	AWA	60 7
037010	Blackwater	TL 845158	AWA	247 3
037011	Chelmer	TL 629233	AWA	72.6
037012	Colne	TL 771364	AWA	65 1
037013	Sandon Brook	TL 755055	AWA	60 6
037014	Roding	TL 561040	TWA	95.1
037015	Cripsey Brook	TL 548035	TWA	62 2
037016	Pant	TL 668313	AWA	62 5
037017	Blackwater	TL 793243	AWA	139.2
037018	Ingrebourne	TQ 553862	TWA	47 9
037019	Beam	TQ 515853	TWA	49 7
037020	Chelmer	TL 670193	AWA	132.1
037021	Roman	TL 985205	AWA	52 6
037022	Holland Brook	TM 179212	AWA	54 9
037023	Roding	TQ 442955	TWA	269 0
037024	Colne	TL 855298	AWA	154 2
037025 *	Bourne Brook	TL 822278	AWA	32 1
037026 *	Tenpenny Brook	TM 079207	AWA	29 0
037027 *	Sixpenny Brook	TM 054214	AWA	5 1
037028 *	Bentley Brook	TM 109193	AWA	12.1
037029 *	St Osyth Brook	TM 134159	AWA	8 0
037030 *	Holland Brook	TM 171217	AWA	48 6
037033	Eastwood Brook	TQ 859888	AWA	10 4
037034	Mardyke	TQ 596806	AWA	90 7
037036	Ely Ouse Outfall	TL 646351	AWA	
037037	Toppesfield Brook	TL 675377	AWA	1.3
037038 *	Wid	TL 672000	AWA	98 6
037039	Blackwater	TL 835090	AWA	337 0

Station number	River name	National Grid reference	Measuring authority	Area (sq km)
038001	Lee	TL 390092	TWA	1036 0
038002	Ash	TL 393148	TWA	78 7
038003	Mimram	TL 282133	TWA	133 9
038004	Rib	TL 360174	TWA	136 5
038005	Ash	TL 380138	TWA	85 2
038006 *	Rib	TL 335158	TWA	148.1
038007	Canons Brook	TL 431104	TWA	21 4
038011	Mimram	TL 225169	TWA	98 7
038012	Stevenage Brook	TL 274211	TWA	36 0
038013	Upper Lee	TL 118185	TWA	70 7
038014	Salmon Brook	TQ 343937	TWA	20 5
038015 *	Intercepting dr	TQ 355932	TWA	7 4
038016	Stanstead Springs	TL 500248	TWA	
038017	Mimram	TL 184212	TWA	39 1
038018	Upper Lee	TL 299099	TWA	150 0
038019 *	Salmons Brook	TQ 354932	TWA	33 9
038020	Cobbins Brook	TQ 387999	TWA	38 4
038021	Turkey Brook	TQ 359985	TWA	42 2
038022	Pymmes Brook	TQ 340925	TWA	42 6
038023	Lee flood relief	TQ 356880	TWA	1743 0
038024	Small River Lee	TQ 370988	TWA	41 5
038025 *	Pymmes Brook	TQ 340925	TWA	41 4
038026	Pincey Brook	TL 495126	TWA	54 6
038028	Stanstead Brook	TL 506241	TWA	25 9
038029	Ouin	TL 392248	TWA	50 4
038030	Beane	TL 325131	TWA	175.1
038131	Rye Meads outfall	TL 393098	TWA	
039001	Thames	TQ 177698	TWA	9948 0
039002	Thames	SU 568935	TWA	3444 7
039003	Wandle	TQ 265705	TWA	176 1
039004	Wandle	TQ 296655	TWA	122 0
039005	Beverley Brook	TQ 216717	TWA	43 6
039006	Windrush	SP 402019	TWA	362 6
039007	Blackwater	SU 731648	TWA	354 8
039008	Thames	SP 445087	TWA	1616 2
039009	Thames	SU 909797	TWA	8915 3
039010	Colne	TQ 052864	TWA	743 0
039011	Wey	SU 874433	TWA	396 3
039012	Hogsmill	TQ 182688	TWA	69.1
039013	Colne	TQ 123982	TWA	352 2
039014	Ver	TL 151016	TWA	132 0
039015	Whitewater	SU 731523	TWA	44 5
039016	Kennet	SU 649708	TWA	1033 4
039017	Ray	SP 6802'1	IH	18 6
039018 *	Ock	SU 486989	TWA	234 1
039019	Lambourn	SU 470882	TWA	234 1
039020	Coln	SP 122062	TWA	106 7
039021	Cherwell	SP 482183	TWA	551 7
039022	Loddon	SU 720652	TWA	164 5
039023	Wye	SU 896867	TWA	137 3
039024 *	Gatwick Stream	TQ 288402	TWA	31 1
039025	Enbourne	SU 568648	TWA	147 6
039026	Cherwell	SP 458411	TWA	199 4
039027	Pang	SU 634766	TWA	170 9
039028	Dun	SU 321685	TWA	101 3
039029	Tillingbourne	TQ 000478	TWA	59 0
039030	Gade	TQ 082952	TWA	184 0
039031	Lambourn	SU 411731	TWA	176 0
039032	Lambourn	SU 390745	TWA	154 0
039033	Winterbourne St	SU 453694	TWA	49 2
039034	Evenlode	SP 448099	TWA	430 0
039035	Churn	SU 076963	TWA	124 3
039036	Law Brook	TQ 045468	TWA	16 0
039037	Kennet	SU 187686	TWA	142 0
039038	Thame	SP 670055	TWA	443 0
039040	Thames	SU 094942	TWA	185 0
039042	Leach	SU 227994	TWA	76 9
039043	Kennet	SU 295710	TWA	295 0
039044	Hart	SU 755593	TWA	.84 0
039046	Thames	SU 516946	TWA	3414 0
039049	Silk Stream	TQ 217895	TWA	29 0
039051	Sor Brook	SP 475346	TWA	106 4
039052	The Cut	SU 853713	TWA	50 2
039053	Mole	TQ 271434	TWA	89 9
039054	Mole	TQ 260399	TWA	31 8
039055	Yeading Bk West	TQ 083846	TWA	17 6
039056	Ravensbourne	TQ 372732	TWA	67 6
039057	Crane	TQ 103778	TWA	616 5
039058	Pool	TQ 371725	TWA	38 3
039068	Mole	TQ 179502	TWA	316 0
039069	Mole	TQ 262462	TWA	142 0
039071	Thames	SU 007973	TWA	63 7
039072	Thames	SU 982773	TWA	7046 0
039073	Churn	SP 020028	TWA	84 0
039074	Ampney Brook	SU 105950	TWA	74 4
039075	Marston Meysey Bk	SU 128964	TWA	25 0
039076	Windrush	SP 299107	TWA	296 0
039077	Og	SU 194697	TWA	59 2
039078	Wey(north)	SU 838462	TWA	118 4
039079	Wey	TQ 068641	TWA	1008 0
039081	Ock	SU 481986	TWA	234 0
039085 *	Wandle	TQ 266703	TWA	176 1
039086	Gatwick Stream	TQ 285417	TWA	33 6
039087	Ray	SU 121935	TWA	84 1
039088	Chess	TQ 066947	TWA	105 0
039089	Gade	TL 053077	TWA	48 2
039090	Cole	SU 208970	TWA	140 0
039091	Misbourne	SU 975963	TWA	170 0
039093	Brent	TQ 202850	TWA	117 6
039094	Crane	TQ 154734	TWA	81 0
039095	Quaggy	TQ 394748	TWA	33 5
039096	Wealdstone Brook	TQ 192862	TWA	21 7
039097	Thames	SU 230981	TWA	997 0
040001	Medway	TQ 407353	SWA	26 9
040002	Darwell	TQ 722213	SWA	9 6
040003	Medway	TQ 708530	SWA	1256 1
040004	Rother	TQ 773245	SWA	206 0
040005	Beult	TQ 758478	SWA	277 1
040006	Bourne	TQ 632497	SWA	50 3
040007	Medway	TQ 517405	SWA	255 1
040008	Great Stour	TR 049470	SWA	230 0
040009	Teise	TQ 718399	SWA	136 2
040010	Eden	TQ 520437	SWA	224 3
040011	Great Stour	TR 116554	SWA	345 0
040012	Darent	TQ 551718	TWA	191 4
040013	Darent	TQ 525584	TWA	100 5
040014	Wingham	TR 276576	SWA	37 7

Station number	River name	National Grid reference	Measuring authority	Area (sq km)
040015	White Drain	TR 055606	SWA	31 8
040016	Cray	TQ 511746	TWA	119 7
040017	Dudwell	TQ 679240	SWA	27 5
040018	Darent	TQ 530643	TWA	118 4
040020	Eridge Stream	TQ 522367	SWA	53 7
040021	Hexden Channel	TQ 813290	SWA	32 4
040022	Great Stour	TQ 973423	SWA	72 5
040023	East Stour	TR 015407	AWA	58 8
040024	Bartley Mill St	TQ 633357	SWA	25 1
041001	Nuthingham Stream	TQ 662129	SWA	6 9
041002	Ash Bourne	TQ 684141	SWA	18 4
041003	Cuckmere	TQ 533051	SWA	134 7
041004	Ouse	TQ 433148	SWA	395 7
041005	Ouse	TQ 429214	SWA	180 9
041006	Uck	TQ 459190	SWA	87 8
041009 *	Rother	TQ 034178	SWA	345 8
041010	Adur W Branch	TQ 178197	SWA	109
041011	Rother	SU 852229	SWA	154 0
041012	Adur E Branch	TQ 219190	SWA	93 3
041013	Huggetts Stream	TQ 671138	SWA	14 2
041014	Arun	TQ 047229	SWA	379 0
041015	Ems	SU 755074	SWA	58 3
041016	Cuckmere	TQ 611150	SWA	18 7
041017	Combehaven	TQ 765102	SWA	30 5
041018	Kird	TQ 044256	SWA	66 8
041019	Arun	TQ 117331	SWA	139 0
041020	Bevern Stream	TQ 423161	SWA	34 6
041021	Clayhill Stream	TQ 448153	SWA	7 1
041022	Lod	SU 931223	SWA	52 0
041023	Lavant	SU 871064	SWA	87 2
041024	Shell Brook	TQ 335286	SWA	22 6
041025	Loxwood Stream	TQ 060309	SWA	91 6
041026	Cockhaise Brook	TQ 376762	SWA	36 1
041027	Rother	SU 772270	SWA	37 2
041028	Chess Stream	TQ 217173	SWA	24 0
041029	Bull	TQ 575131	SWA	40 8
042001	Walington	SU 587075	SWA	111 0
042002	Itchen	SU 467213	SWA	
042003	Lymington	SU 318019	SWA	98 9
042004	Test	SU 354188	SWA	1040 0
042005	Wallop Brook	SU 311330	SWA	53 6
042006	Meon	SU 589141	SWA	72 8
042007	Alre	SU 574326	SWA	57 0
042008	Cheriton Stream	SU 574323	SWA	75 1
042009	Candover Brook	SU 568323	SWA	71 2
042010	Itchen	SU 467213	SWA	360 0
042011	Hamble	SU 523149	SWA	56 6
042012	Anton	SU 379393	SWA	185 0
042013	Test	SU 355189	SWA	1040 0
042014	Blackwater	SU 328174	SWA	104 7
042016	Itchen	SU 512325	SWA	236 8
042019	Tanners Brook	SU 388133	SWA	16 0
042021	Branch of Test	SU 355159	SWA	1050 0
043001 *	Avon	SU 142054	WWA	1649 8
043003	Avon	SU 158144	WWA	1477 8
043004	Bourne	SU 157304	WWA	163 6
043005	Avon	SU 151413	WWA	323 7
043006	Nadder	SU 098308	WWA	220 6
043007	Stour	SZ 113958	WWA	1073 0
043008	Wylye	SU 086343	WWA	445 4
043009	Stour	ST 820147	WWA	523 1
043010	Allen	SU 006085	WWA	94 0
043011 *	Ebble	SU 162763	WWA	109 0
043012	Wylye	ST 909428	WWA	112 4
043013	Wuce	SZ 184936	WWA	12 4
043014	East Avon	SU 133559	WWA	86 2
043015	Wylye	ST 868413	WWA	69 0
043017	West Avon	SU 133559	WWA	76 0
043018	Allen	SU 008007	WWA	176 5
043019	Stream Water	ST 807278	WWA	29 1
043021	Avon	SZ 155943	WWA	1706 0
044001	Frome	SY 866867	WWA	414 4
044002	Piddle	SY 913876	WWA	183
044003 *	Asker	SY 470928	WWA	49 1
044004	Frome	SY 708903	WWA	206 0
044006	Sydling Water	SY 632997	WWA	124
044008	Sth Winterbourne	SY 629897	WWA	19 9
044009	Wey	SY 666839	WWA	7 0
045001	Exe	SS 936016	SWWA	600 9
045002	Exe	SS 943178	SWWA	421 7
045003	Culm	ST 021058	SWWA	226 1
045004	Axe	SY 262953	SWWA	288 5
045005	Otter	SY 087885	SWWA	202 5
045006 *	Quarme	SS 919356	SWWA	20 4
045008	Otter	SY 115986	SWWA	104 2
045009	Exe	SS 935260	SWWA	159 7
046001	South Teign	SX 671844	SWWA	9 9
046002	Teign	SX 856746	SWWA	380 0
046003	Dart	SX 751659	SWWA	247 6
046004	Avon	SX 680651	SWWA	12 0
046005	East Dart	SX 657775	SWWA	21 5
046006	Erme	SX 642532	SWWA	43 5
046007 *	West Dart	SX 643742	SWWA	47 9
046008 *	Avon	SX 719476	SWWA	102 3
047001	Tamar	SX 426725	SWWA	916 9
047002 *	Tamar	SX 343886	SWWA	232 1
047003	Tavy	SX 474650	SWWA	205 9
047004	Lyrher	SX 368624	SWWA	135 5
047005 *	Ottery	SX 336866	SWWA	120 7
047006 *	Lyd	SX 388842	SWWA	218 1
047007	Yeatm	SX 574511	SWWA	54 9
047008	Thrushel	SX 398856	SWWA	112 7
047009	Tiddy	SX 343595	SWWA	37 2
047010	Tamar	SX 29099	SWWA	76 7
047011 *	Plym	SX 522613	SWWA	79 2
047013	Withey Brook	SX 244763	SWWA	16 2
047014	Walkham	SX 513699	SWWA	43 2
048001	Fowey	SX 227698	SWWA	36 8
048002 *	Fowey	SX 108813	SWWA	171 2
048003	Fal	SW 921447	SWWA	87 0
048004	Warleggan	SX 159674	SWWA	25 3
048005	Kenwyn	SW 820450	SWWA	19 1
048006	Cober	SW 654273	SWWA	40 1
048007	Kennall	SW 762377	SWWA	26 6
048009	St Neot	SX 184662	SWWA	22 7
048010	Sealon	SX 299596	SWWA	38 1
048011	Fowey	SX 098624	SWWA	169 1
049001	Camel	SX 017682	SWWA	208 8
049002	Hayle	SW 549342	SWWA	48 9
049003	De Lank	SX 137765	SWWA	21 7
049004	Gannel	SW 829593	SWWA	41 0
050001	Taw	SS 608237	SWWA	826 2
050002	Torridge	SS 500185	SWWA	663 0
050003 *	Taw	SX 634938	SWWA	15 6
050004 *	Hole Water	SS 705373	SWWA	5 4
051001	Doniford Stream	ST 088428	WWA	75 8
051002 *	Horner Water	SS 898458	WWA	20 8
052001 *	Axe	ST 527458	WWA	18 2
052002 *	Yeo	ST 556116	WWA	30 3
052003	Hase Water	ST 206253	WWA	87 8
052004	Isle	ST 36 188	WWA	90 1
052005	Tone	ST 206250	WWA	202 0
052006	Yeo	ST 573162	WWA	213 1
052007	Parrett	ST 48 144	WWA	74 8
052008 *	Tone	ST 044313	WWA	18 1
052009	Sheppey	ST 498439	WWA	59 6
052010	Brue	ST 590318	WWA	135 2
052011	Cary	ST 49829	WWA	82 4
052014	Tone	ST 078202	WWA	57 2
052015 *	Land Yeo	ST 483716	WWA	73 3
052016	Currypool Stream	ST 22 382	WWA	15 7
052017 *	Congresbury Yeo	ST 452631	WWA	66 6
052020 *	Gallica Stream	ST 57 100	WWA	16 4
053001 *	Avon	ST 903641	WWA	665 6
053002	Semington Brook	ST 907605	WWA	157 7
053003 *	Avon	ST 753645	WWA	1595 0
053004	Chew	ST 648647	WWA	129 5
053005	Midford Brook	ST 763611	WWA	147 4
053006	Frome(Bristol)	ST 637772	WWA	148 9
053007	Frome(Somerset)	ST 805564	WWA	261 6
053008	Avon	ST 966832	WWA	303 0
053009	Wellow Brook	ST 741581	WWA	72 6
053013	Marden	ST 955729	WWA	99 2
053014 *	Spring Flow	ST 655464	WWA	
053015 *	Spring Flow	ST 902524	WWA	
053016 *	Spring Flow	ST 803399	WWA	
053017	Boyd	ST 681698	WWA	48 0
053018	Avon	ST 786671	WWA	1552 0
053019	Woodbridge Brook	ST 949866	WWA	46 6
053020	Gauze Brook	ST 937840	WWA	28 2
053022	Avon	ST 738651	WWA	1605 0
053023	Sherston Avon	ST 891870	WWA	89 7
053024	Tetbury Avon	ST 914893	WWA	73 6
053025	Mells	ST 757491	WWA	119 0
053026	Frome(Bristol)	ST 667822	WWA	78 5
053028	By Brook	ST 815688	WWA	102 0
054001	Severn	SO 782762	STWA	4325 0
054002	Avon	SP 040438	STWA	2210 0
054003	Vyrnwy	SJ 019191	NWWA	94 3
054004	Sowe	SP 332731	STWA	262 0
054005	Severn	SJ 412144	STWA	2025 0
054006	Stour	SO 829768	STWA	324 0
054007	Arrow	SP 086536	STWA	319 0
054008	Teme	SO 597686	STWA	1134 4
054010	Stour	SP 208507	STWA	316 0
054011	Salwarpe	SO 868618	STWA	184 0
054012	Tern	SJ 592123	STWA	852 0
054013 *	Clywedog	SN 944855	STWA	57 0
054014	Severn	SO 164958	STWA	580 0
054015	Bow Brook	SO 927463	STWA	156 0
054016	Roden	SJ 589141	STWA	259 0
054017	Leadon	SO 777234	STWA	293 0
054018	Rea Brook	SJ 466097	STWA	178 0
054019	Avon	SP 333715	STWA	347 0
054020	Perry	SJ 434192	STWA	180 8
054022	Severn	SN 853872	IH	8 7
054023	Badsey Brook	SP 063449	STWA	95 8
054024	Worfe	SO 747953	STWA	258 0
054025	Dulas	SN 950824	STWA	52 7
054026	Chelt	SO 892264	STWA	34 5
054027	Frome	SO 831047	STWA	198 0
054028	Vyrnwy	SJ 257195	STWA	778 0
054029	Terne	SO 735557	STWA	1480 0
054032	Severn	SO 863390	STWA	6850 0
054034	Dowles Brook	SO 768764	STWA	40 8
054036	Isbourne	SP 023408	STWA	90 7
054038	Tanat	SJ 252225	STWA	229 0
054040	Meese	SJ 680205	STWA	167 8
054041	Tern	SJ 649230	STWA	192 0
054042 *	Clywedog	SN 914867	STWA	49 0
054043 *	Severn	SO 863399	STWA	8990 0
054044	Tern	SJ 679316	STWA	92 6
054045 *	Perry	SJ 347303	STWA	49 1
054046	Worfe	SJ 781046	STWA	54 9
054047	Perry	SJ 403223	STWA	155 0
054048	Dane	SP 273556	STWA	102 0
054049	Leam	SP 307654	STWA	362 0
054051	Clywedog	SN 914867	STWA	49 0
054053 *	Corve	SO 510752	STWA	164 0
054054 *	Onny	SO 455789	STWA	235 0
054055 *	Ree	SO 664724	STWA	129 0
054056 *	Clun	SO 393786	STWA	195 0
054057	Severn	SO 844279	STWA	9895 0
054058 *	Stoke Park Brook	SJ 644260	STWA	14 3
054059 *	Alford Brook	SJ 654223	STWA	10 2
054060 *	Patford Brook	SJ 634220	STWA	25 0
054061 *	Hadnet Brook	SJ 628288	STWA	5 1
054065 *	Roden	SJ 565241	STWA	210 0
054067 *	Smestow Brook	SO 861906	STWA	81 3
054068 *	Tatchel Brook	SJ 379288	STWA	21 2
054069 *	Springs Brook	SJ 387297	STWA	10 4
054080	Severn	SN 996851	STWA	187 0
054081	Clywedog	SN 913868	STWA	49 0
054083	Crow Brook	SJ 678141	STWA	16 7

Station number	River name	National Grid reference	Measuring authority	Area (sq km)
054084	Cannop Brook	SO 616075	STWA	31 5
054085	Cannop Brook	SO 609115	STWA	10 4
054086	Cowmwy Diversion	SH 999179	STWA	13 2
054087	Alford Brook	SJ 665233	STWA	4.7
054088	Little Avon	ST 683988	WWA	134 0
054090	Tandwyth	SN 844878	IH	0 9
054091	Severn	SN 843878	IH	3 6
054092	Hore	SN 846873	IH	3 2
054094	Strine	SJ 640175	STWA	134 0
054111	Severn	SO 776783	STWA	4325 0
055001	* Wye	SO 535090	WELS	4040 0
055002	Wye	SO 485388	WELS	1895 9
055003	Lugg	SO 548405	WELS	885 8
055004	Irfon	SN 897460	WELS	72 8
055005	* Wye	SN 969676	WELS	166 8
055006	Elan	SN 926645	STWA	184 0
055007	Wye	SO 076445	WELS	1282.1
055008	Wye	SN 829838	IH	10 4
055009	* Monnow	SO 419251	WELS	357 4
055010	Wye	SN 843825	WELS	27.2
055011	Ithon	SO 105683	WELS	111.4
055012	Irfon	SN 995507	WELS	244 2
055013	Arrow	SO 328585	WELS	126 4
055014	Lugg	SO 364647	WELS	203 3
055015	Honddu	SO 277294	WELS	25 1
055016	Ithon	SO 024578	WELS	358 0
055017	* Chwefru	SN 998531	WELS	29 0
055018	Frome	SO 615428	WELS	144 0
055019	* Gamber Brook	SO 529235	WELS	30 3
055020	* Pinsley Brook	SO 462598	WELS	24 2
055021	Lugg	SO 502589	WELS	371 0
055022	Trothy	SO 503112	WELS	142 0
055023	Wye	SO 528110	WELS	4010 0
055025	Llynfi	SO 166373	WELS	132 0
055026	Wye	SN 976676	WELS	174 0
055027	Rudhall Brook	SO 641257	WELS	13 2
055028	Frome	SO 667489	WELS	77 7
055029	Monnow	SO 415249	WELS	354 0
055030	* Claerwen	SN 910620	WELS	95 3
055031	Yazor Brook	SO 492415	WELS	42 3
055032	Elan	SN 934653	WELS	184 0
055033	Wye	SN 824853	IH	3 9
055034	Cyff	SN 824842	IH	3 1
055035	Iago	SN 826854	IH	1 1
056001	Usk	SO 345056	WELS	911 7
056002	Ebbw	ST 259889	WELS	216 5
056003	Honddu	SO 051297	WELS	62 1
056004	Usk	SO 127203	WELS	543 9
056005	Lwyd	ST 330924	WELS	98 1
056006	Usk	SN 947295	WELS	183 8
056007	Senni	SN 928255	WELS	19.9
056008	* Monks Ditch	ST 372885	WELS	15 4
056010	Usk	SO 358042	WELS	927 2
056011	Sirhowy	ST 206912	WELS	76 1
056012	Grwyne	SO 241176	WELS	82 2
056013	Yscir	SO 003304	WELS	62 8
056014	Usk	SN 840290	WELS	17 0
056015	Olway Brook	SO 384010	WELS	105 1
056016	Ceartlanell outfl	SO 104206	WELS	32 4
056017	* Afon Lwyd	SO 274019	WELS	42.5
056018	* Sirhowy	SO 131114	WELS	13 5
057001	Taf Fechan	SO 060117	WELS	33 7
057002	Taf Fawr	SO 012111	WELS	43 0
057003	Taff	ST 132818	WELS	486 9
057004	Cynon	ST 079956	WELS	106 0
057005	Taff	ST 079897	WELS	454 8
057006	Rhondda	ST 054909	WELS	100 5
057007	Taff	ST 089951	WELS	194 5
057008	Rhymney	ST 225821	WELS	178 7
057009	Ely	ST 121770	WELS	145 0
057010	Ely	ST 034827	WELS	39 4
057011	* Blaew Taf Fawr	SN 987193	WELS	5 1
057012	* Garwnant	SO 004129	WELS	43 1
057014	* Rhymney	ST 156984	WELS	63 2
057015	Taff	SO 043068	WELS	104
057016	Taf Fechan	SO 060115	WELS	33 8
058001	Ogmore	SS 904794	WELS	158 0
058002	Neath	SN 815017	WELS	190 9
058003	* Ewenny	SS 914780	WELS	62 9
058005	Ogmore	SS 904844	WELS	74 3
058006	Melte	SN 915082	WELS	65 8
058007	Llynfi	SS 891855	WELS	50 2
058008	Duais	SN 778008	WELS	43 0
058009	Ewenny	SS 920782	WELS	62.5
058010	Hepste	SN 969134	WELS	11 0
058011	Thaw	ST 017716	WELS	49 2
059001	Tawe	SS 685998	WELS	227 7
059002	Loughor	SN 623127	WELS	46 4
060001	Tywi	SN 491204	WELS	1087 8
060002	Cothi	SN 508725	WELS	297 8
060003	Taf	SN 238160	WELS	217 3
060004	Dewi Fawr	SN 290175	WELS	40 1
060005	Bran	SN 771343	WELS	66 8
060006	Gwili	SN 431220	WELS	129 5
060007	Tywi	SN 762362	WELS	231 8
060008	Tywi	SN 786472	WELS	89 8
060009	Sawdde	SN 712266	WELS	81 1
060010	Tywi	SN 485206	WELS	1090 4
060012	Twrch	SN 650440	WELS	20 7
060013	* Cothi	SN 537301	WELS	261 6
061001	Western Cleddau	SM 954177	WELS	197 6
061002	Eastern Cleddau	SN 072153	WELS	183 1
061003	Gwaun	SN 005349	WELS	31 3
061004	Western Cleddau	SM 942184	WELS	197 6
062001	Teifi	SN 744416	WELS	893 6
062002	Teifi	SN 433406	WELS	546 5
063001	Ystwyth	SN 591774	WELS	169 6
063002	Rheidol	SN 601804	WELS	182 1
063003	* Wyre	SN 542698	WELS	40 6
064001	Dovey	SH 745019	WELS	471.3
064002	Dysynni	SH 632066	WELS	75 1
064003	* Mawddach	SH 729233	WELS	138 6
064006	Len	SN 635882	WELS	47 2
065001	Glaslyn	SH 592478	WELS	68 6
065002	* Dwyryd	SH 670415	WELS	78 2
065004	Gwyrfai	SH 484599	WELS	47 9
065005	Erch	SH 400404	WELS	18 1
065006	Seiont	SH 493623	WELS	74 4
065007	Dwyfawr	SH 499429	WELS	52 4
066001	Clwyd	SJ 069709	WELS	404 0
066002	* Elwy	SJ 021704	WELS	220 0
066003	Aled	SH 957703	WELS	70 0
066004	Wheeler	SJ 105714	WELS	62 9
066005	Clwyd	SJ 122592	WELS	95 3
066006	Elwy	SH 952718	WELS	194 0
066008	Aled	SH 915598	WELS	11 6
066011	Conwy	SH 802581	WELS	344 5
067001	Dee	SH 942357	WELS	261 6
067002	* Dee	SJ 357413	WELS	1040 0
067003	Brenig	SH 974539	WELS	22 0
067004	Alwen	SH 957528	WELS	25 5
067005	Ceiriog	SJ 295373	WELS	113 7
067006	Alwen	SJ 042436	WELS	184 7
067007	* Dee	SJ 155428	WELS	728 0
067008	Alyn	SJ 336541	WELS	227 1
067009	Alyn	SJ 206687	WELS	77 8
067010	* Gelyn	SH 843420	WELS	13 1
067011	* Nant Aberderfel	SH 851392	WELS	3 7
067012	* Tryweryn	SH 838398	WELS	27.2
067013	* Hiraeth	SH 946349	WELS	33 9
067015	Dee	SJ 348415	WELS	1019 3
067016	* Worthenbury Brook	SJ 418464	WELS	142 1
067017	Tryweryn	SH 880399	WELS	59 9
067018	Dee	SH 874308	WELS	53 9
067025	Clywedog	SJ 396483	WELS	98 6
067028	* Ceidiog	SJ 034371	WELS	36 5
067029	Tryston	SJ 066405	WELS	12 3
068001	Weaver	SJ 670633	NWWA	622 0
068002	* Gowy	SJ 443714	NWWA	156 2
068003	Dane	SJ 668718	NWWA	407 1
068004	Wistaston Brook	SJ 674552	NWWA	92 7
068005	Weaver	SJ 653431	NWWA	207 0
068006	Dane	SJ 845644	NWWA	1150 0
068007	Wincham Brook	SJ 697757	NWWA	148 0
068010	* Fender	SJ 781880	NWWA	18 4
068011	* Arley Brook	SJ 696799	NWWA	36 5
068015	Gowy	SJ 497624	NWWA	490
068018	Dane	SJ 861632	NWWA	145 0
068019	Weaver	SJ 574762	NWWA	1370 0
068020	Gowy	SJ 448711	NWWA	156 0
069001	Mersey	SJ 728936	NWWA	679 0
069002	Irwell	SJ 824987	NWWA	559 4
069003	Irk	SJ 841992	NWWA	72 5
069004	Etherow	SK 023971	NWWA	78 2
069005	Glaze Brook	SJ 685939	NWWA	152 0
069006	Bollin	SJ 727875	NWWA	256 0
069007	Mersey	SJ 772936	NWWA	660 0
069008	Dean	SJ 846830	NWWA	51 8
069011	Micker Brook	SJ 855889	NWWA	67 3
069012	Bollin	SJ 850815	NWWA	72 5
069013	Sunderland Brook	SJ 726905	NWWA	44 8
069015	Etherow	SJ 982908	NWWA	156 0
069017	Goyt	SJ 964898	NWWA	183 0
069018	* Newton Brook	SJ 585933	NWWA	32 8
069020	Medlock	SJ 849975	NWWA	57 5
069021	* Stake Brook	SD 876247	NWWA	0 3
069023	Roch	SD 807077	NWWA	186 0
069024	Croal	SD 743068	NWWA	145 0
069027	Tame	SJ 906918	NWWA	150 0
069030	Sankey Brook	SJ 588922	NWWA	154 0
069031	Ditton Brook	SJ 457865	NWWA	47 9
069032	Alt	SJ 392983	NWWA	90
069033	* Alt	SD 359012	NWWA	100 0
069034	Musbury Brook	SD 775213	NWWA	3 1
069035	Irwell	SD 797109	NWWA	155 0
069036	Eagley Brook	SD 701149	NWWA	16 8
069037	Mersey	SJ 617877	NWWA	2030 0
069039	Medlock	SJ 863987	NWWA	55 9
069040	Irwell	SD 793188	NWWA	105 0
070001	Douglas	SD 631119	NWWA	39 4
070002	Douglas	SD 478126	NWWA	198 0
070003	Douglas	SD 587061	NWWA	55 3
070004	Yarrow	SD 498180	NWWA	74 4
070005	Lostock	SD 497197	NWWA	56 0
071001	Ribble	SD 589304	NWWA	1145 0
071002	Hodder	SD 719546	NWWA	37 0
071003	Croasdale	SD 706546	NWWA	10 4
071004	Calder	SD 729360	NWWA	316 0
071005	Bottoms Beck	SD 745565	NWWA	10 6
071006	Ribble	SD 722392	NWWA	456 0
071007	* Ribble	SD 709379	NWWA	720 0
071008	Hodder	SD 704399	NWWA	261 0
071010	Pendle Water	SD 837351	NWWA	108 0
071011	Ribble	SD 839556	NWWA	204 0
071013	Darwen	SD 677262	NWWA	39 5
071014	Darwen	SD 565278	NWWA	128 0
072001	* Lune	SD 503647	NWWA	994 6
072002	Wyre	SD 463411	NWWA	275 0
072004	Lune	SD 529653	NWWA	983 0
072005	Lune	SD 622907	NWWA	219 0
072006	Lune	SD 615778	NWWA	507 1
072007	Brock	SD 512405	NWWA	32 0
072008	Wyre	SD 488447	NWWA	114 0
072009	Wenning	SD 615701	NWWA	142 0
072010	* Lune	NY 613041	NWWA	135 8
072011	Rawthey	SD 639911	NWWA	200 0
073001	* Lever	SD 371863	NWWA	241 0
073002	Crake	SD 294882	NWWA	73 0
073003	Kent	SD 507956	NWWA	73 6

Station number	River name	National Grid reference	Measuring authority	Area (sq km)
073005	Kent	SD 509874	NWWA	209 0
073007	Troutbeck	NY 404007	NWWA	23 6
073008	Bela	SD 496806	NWWA	131 0
073009	Sprint	SD 514961	NWWA	34.6
073010	Leven	SD 367863	NWWA	247 0
073011	Mint	SD 524944	NWWA	65 8
073013	Rothay	NY 371042	NWWA	64 0
073014	Brathay	NY 360034	NWWA	57 4
073015 *	Keer	SD 523719	NWWA	48 0
074001	Duddon	SD 198898	NWWA	78 2
074002	Irt	NY 136038	NWWA	44 2
074003	Ehen	NY 084154	NWWA	44 2
074005	Ehen	NY 009081	NWWA	125 5
074006	Calder	NY 035045	NWWA	44 8
074007	Esk	SD 131978	NWWA	70 2
074008	Duddon	SD 209947	NWWA	47 9
075001	St Johns Beck	NY 309191	NWWA	40 9
075002	Derwent	NY 038305	NWWA	663 0
075003	Derwent	NY 199321	NWWA	363 0
075004	Cocker	NY 131281	NWWA	116 6
075005	Derwent	NY 251239	NWWA	235 0
075006	Newlands Beck	NY 240239	NWWA	33 9
075007	Glenderamackin	NY 323248	NWWA	69 0
075009	Greta	NY 286242	NWWA	145 6
075010 *	Marron	NY 074238	NWWA	27 7
075016	Cocker	NY 149214	NWWA	84 0
075017	Ellen	NY 096384	NWWA	96 0
076001	Haweswater Beck	NY 508159	NWWA	33 0
076002	Eden	NY 470567	NWWA	1366 7
076003	Eamont	NY 578306	NWWA	398 2
076004	Lowther	NY 527287	NWWA	158.5
076005	Eden	NY 605283	NWWA	616 4
076007	Eden	NY 390571	NWWA	2286 5
076008	Irthing	NY 486581	NWWA	334 6
076009	Caldew	NY 378469	NWWA	147 2
076010	Petteril	NY 412545	NWWA	160 0
076011	Coal Burn	NY 693777	IH	1 5
076014	Eden	NY 773097	NWWA	69 4
076015	Eamont	NY 472249	NWWA	145 0
077001	Esk	NY 390718	NWWA	841 7
077002	Esk	NY 397751	SRPB	495 0
077003	Liddel Water	NY 415759	SRPB	319 0
077004	Kirtle Water	NY 285693	SRPB	72 0
077005	Lyne	NY 412662	NWWA	191 0
078001 *	Annan	NY 125755	SRPB	730 3
078002 *	Ae	NY 068852	SRPB	143 2
078003	Annan	NY 191704	SRPB	925 0
078004	Kinnel Water	NY 077868	SRPB	76 1
078005	Kinnel Water	NY 091845	SRPB	229 0
078006	Annan	NT 099010	SRPB	217 0
079001 *	Afton Water	NS 631050	SRPB	8 5
079002	Nith	NX 923851	SRPB	799 0
079003	Nith	NS 684129	SRPB	155 0
079004	Scar Water	NX 845940	SRPB	142 0
079005	Cluden Water	NX 928795	SRPB	238 0
079006	Nith	NX 858994	SRPB	471 0
080001	Urr	NX 822610	SRPB	199 0
080002	Dee	NX 733641	SRPB	809 0
081001 *	Penwhirn Burn	NX 128694	DGRW	18 2
081002	Cree	NX 412653	SRPB	368 0
081003	Luce	NX 180599	SRPB	171 0
081004	Bladnoch *	NX 382545	SRPB	334 0
081005	Piltanton Burn	NX 107584	SRPB	34.2
082001	Girvan	NX 217997	CRPB	245 5
082002	Doon	NS 338160	CRPB	323 8
082003	Stinchar	NX 108832	CRPB	341 0
083001	Ceaf Water	NS 245514	SRCW	6 0
083002 *	Garnock	NS 293488	CRPB	88 8
083003	Ayr	NS 525259	CRPB	166 3
083004	Lugar	NS 508217	CRPB	181 0
083005	Irvine	NS 345369	CRPB	380 7
083006	Ayr	NS 381216	CRPB	574 0
083007	Lugton Water	NS 315420	CRPB	54 6
083009	Garnock	NS 307424	CRPB	183 8
083010	Irvine	NS 532372	CRPB	72 8
084001	Kelvin	NS 558705	CRPB	335.1
084002	Calder	NS 309638	SRCW	12 4
084003	Clyde	NS 835452	CRPB	1092 9
084004	Clyde	NS 927424	CRPB	741 8
084005	Clyde	NS 704579	CRPB	1704 2
084006	Kelvin	NS 672749	CRPB	63 7
084007	South Calder Wtr	NS 751585	CRPB	93 0
084008	Rotten Calder Wtr	NS 679604	CRPB	51 3
084009	Nethan	NS 809429	CRPB	66 0
084011	Gryfe	NS 415664	CRPB	71 0
084012	White Cart Water	NS 499629	CRPB	234 9
084013	Clyde	NS 672616	CRPB	1903.1
084014	Avon Water	NS 755518	CRPB	265 5
084015	Kelvin	NS 638739	CRPB	235 4
084016	Luggie Water	NS 739725	CRPB	33 9
084017	Black Cart Water	NS 411620	CRPB	103 1
084018	Clyde	NS 891404	CRPB	932 6
084019	North Calder Wtr	NS 681625	CRPB	129 8
084020	Glazert Water	NS 656783	CRPB	51 9
084021 *	White Cart Water	NS 587597	CRPB	91 8
084022	Duneaton	NS 929259	CRPB	110 3
084023	Bothlin Burn	NS 680717	CRPB	35 7
084024	North Calder Wtr	NS 828678	CRPB	19 9
084025	Luggie Water	NS 666734	CRPB	87.7
084026	Allander Water	NS 558738	CRPB	32 8
084027 *	North Calder Wtr	NS 765624	CRPB	60 6
084028	Monkland Canal	NS 765626	CRPB	60 6
084029	Cander Water	NS 765471	CRPB	24 5
084030	White Cart Water	NS 587598	CRPB	111 8
085001	Leven	NS 394803	CRPB	784 3
085002	Endrick Water	NS 485866	CRPB	219 9
085003	Falloch	NN 321197	CRPB	80 3
085004	Luss Water	NS 356929	CRPB	35 3
086001	Little Eachaig	NS 143821	CRPB	30 8
086002	Eachaig	NS 140843	CRPB	139 9
090001	Leven	NN 202602	BAC	170 7
090002 *	Creran	NN 019468	CRPB	66 1
090003	Nevis	NN 116742	HRPB	76 8
091001	Lochy	NN 126752	BAC	779 6
091002	Lochy	NN 145805	HRPB	1252 0
091003	Mucomir Cut	NS 179843	HRPB	383 3
093001	Carron	NG 942429	HRPB	137 8
094001	Ewe	NG 859803	HRPB	441 1
095001	Inver	NC 147250	HRPB	137 5
096001	Halladale	NC 891581	HRPB	204.6
096002	Naver	NC 713568	HRPB	477 0
097001	Calder Burn	ND 085596	HRCW	24 5
097002	Thurso	ND 131595	HRPB	412 8
10'001	Eastern Yar	SZ 577857	SWA	57 5
10'002	Medina	SZ 503874	SWA	29 8
201002	Fairy Water	IH 406758	DOEN	161 2
201005	Camowen	IH 460730	DOEN	274 6
201006	Drumragh	IH 458722	DOEN	324 6
201007	Burn Dennet	IC 372047	DOEN	145 3
201008	Derg	IH 265842	DOEN	337.3
203010	Blackwater	IH 820519	DOEN	951 4
203011	Main	ID 052086	DOEN	228 8
203012	Ballinderry	IH 926799	DOEN	419 5
203017	Upper Bann	IJ 043509	DOEN	335 6
203018	Six Mile Water	IJ 146867	DOEN	277.3
203020	Moyola	IH 955905	DOEN	308 5
203021	Kells Water	IJ 106971	DOEN	127 0
203025	Callan	IH 893524	DOEN	164.1
203027	Braid	ID 097014	DOEN	177 2
203028	Agivey	IC 883193	DOEN	98 9
203033	Upper Bann	IJ 233341	DOEN	100 9
204001	Bush	IC 942362	DOEN	306.1
205003	Lagan	IJ 299679	DOEN	444 7
205004	Lagan	IJ 329893	DOEN	490 4
205005	Ravernet	IJ 267613	DOEN	69 5
205008	Lagan	IJ 236525	DOEN	85 2

* = closed

Refer to page 196 for key to measuring authorities

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	↑	–

Summary is presented in decade blocks

Stn. number	Gauged daily flows, monthly peaks and rainfall			
002001	70s · -aaaaa	80s aAAAAA		
003001	50s ---aAAAa			
003002	70s ----aaaaa	80s aAAAAA		
003003	70s --------aAA	80s AAAAAA		
003004	70s -------E	80s AAAAAA		
003005	80s -aaaaA			
004001	40s --------fc1	50s cccbAEAAEA		
	60s BABABAAAAA	70s E!!!!!AAAA		
	80s AAAAAA			
004003	70s ----aaaaa	80s aAAAAA		
004004	80s -aaaaA			
005001	50s ---aAAAAAA	60s AAE-!!!!!!		
	70s !!!!			
006001	30s --aAAAB	40s BBBABBBBAA		
	50s E!!EAAAAAA	60s AAAE!!!!!		
	70s !!!!			
006003	20s ----------f	30s ccccccccc		
	40s ccccct			
006006	50s ·aAAAAAB	60s BAa		
006007	70s ---AAAAAAA	80s AAAAAA		
006008	70s -- -----E	80s AAAAAA		
007001	60s aAAAAAAAAA	70s AAAAAAAAAA		
	80s AAAAAA			
007002	50s ---------aA	60s AAAAAAAAAA		
	70s AAAAAAAAAA	80s AAAAAA		
007003	60s ---aAAAAAA	70s AAABAAAAAa		
	80s AAAACA			
007004	70s ----------a	80s aAAAAA		
007005	70s ----M	80s !--aaA		
008001	30s - ·----fc	40s Hccccccc		
	50s bBBAAAAAAA	60s AAAAAAAAAA		
	70s AAAAA!!!			
008002	50s -aAAABAAAA	60s AAAAAAAAAA		
	70s AAAAAAAAAA	80s AAAACA		
008003	50s -aAAAAAAA	60s AAAAAAAAAA		
	70s AAAA:!!!!!			
008004	50s FAAAAAAA	60s AAAAAAAAAA		
	70s AAAAAAAAA	80s AAAAF!		
008005	50s -aBAAAAAA	60s AAAAAAAAAA		
	70s AAAAAAAAA	80s AAAACA		
008006	50s --aAAAAAA	60s AAAAAAAAAA		
	70s AAAAAAAAA	80s AAAAAA		
008007	50s --aAAAAAA	60s AAAAAAAAAA		
	70s AAAAAAAAA	80s AAAACA		
008008	50s --aAAAAAA	60s AAAAAAAAAA		
	70s AAAAAAAAA	80s AAAACA		
008009	50s EAbbABBA	60s AAAAAAAAAA		
	70s AAAAAAAAA	80s AAAAFA		
008010	50s ---aAAAAAA	60s AAAAAAAAAA		
	70s AAAAAAAAA	80s AAAAFA		
009001	50s ------a	60s AAAAAAAAAA		
	70s AAAAAAAAA	80s AAAACA		
009002	60s aAAAAAAAA	70s AAAAAAAAAA		
	80s AAAAAA			
009003	60s -!!!!!!!E	70s AAAAAAAAAA		
	80s AAAAFA			
009004	80s aaaafa			
010001	60s ·!!!*EAAAA	70s ABAAAAAAAA		
	80s ACCc			
010002	60s -!!!!!!!*	70s !EAABAAAAA		
	80s AAAAAA			
010003	80s ---acA			
011001	60s -!!!!!!!E	70s AAAAAAAAAA		
	80s AAAAAA			
011002	60s !!!*!!!F	70s CBAAAAAAAA		
	80s AAAAFA			
011003	60s -!!!:!!!!*	70s !!!EAAAAAA		
	80s AAAAFA			
012001	20s ·-------a	30s BBBBBBAAAA		
	40s BABBAABCCC	50s CCCCCCCCCC		
	60s CCCCCBAAAA	70s BCBAAAAAAA		
	80s AAAAAA			
012002	70s --aAAAAAA	80s AAAACA		
012003	70s -----aaaa	80s aAAACC		
012004	60s -------'	70s aaaaabaaa		
	80s bCCCCt			
012005	70s ------aaa	80s aAAACA		
012006	70s -----aa	80s aAAACA		
012007	80s --aacA			
012008	80s -----a			
013001	70s ---------a	80s aAAACA		
013002	80s --cccA			
013003	70s ----------c	80s ccc		
013004	80s ---A			
013005	80s -acccA			
013007	70s ------CCCC	80s CCCAAA		
013008	80s - AAA			
013009	80s -----'			
014001	60s -!!!::!EAA	70s AAAAAAAAAA		
	80s AAAAAA			
014002	60s -!!!!!!!E	70s AAAAAAAAAA		
	80s ACCCCA			
014005	80s ----ca			
015001	50s -aa-----	60s aAAAAAAAE!		
	70s !!!!!!!!!!	80s !!!!!!		
015002	50s ---------a	60s AAAAAAAEE!		
	70s !!!!!!!!!!	80s !!!!!!		
015003	40s -------fcC	50s CBAAAAAAAA		
	60s AAAAAAAAAA	70s AAAAAAAAAA		
	80s ABCCCA			
015004	20s -------CCC	30s CCCCCCBAa-		
	40s ------!!!!	50s EE!!!!!!!E		
	60s AAAAAAAEE!	70s !!!!!!!!!!		
	80s !!!!!!			
015005	20s -------CCC	30s CCCCCCBAa-		
	40s -------!!!	50s EE!EEE!!!E		
	60s AEAAAAAAE!	70s !!!!!!!!!!		
	80s !!!!!*			
015006	50s ~aAAAAAAA	60s AAAAAAAAAA		
	70s AAAAAAAAA	80s BAAAAA		
015007	50s ------aAA	60s AAAAAAAAAA		
	70s AAAAAAAAA	80s AACCCA		
015008	50s --------EA	60s AAAAAAAAAA		
	70s AAAAAAAAA	80s BACCCA		
015010	70s --cAAAAAAA	80s ACCCCA		
015011	50s ---------cc	60s cccccccccc		
	70s cCBAAAAAAA	80s ACCCCA		
015012	70s --BAAAaaa	80s AACCCA		
015013	50s -----ccccc	60s cCCCCCCCCC		
	70s CCCBAAAAAA	80s AABCCA		
015016	70s ----bAAAAA	80s AACCCA		
015017	70s -.--aAAAA	80s A!!		
015018	50s ---aaaaa			
015021	80s -----!			
015023	80s ---ccA			
015024	80s --cccD			
015025	80s ----fA			
018001	40s --------Cc	50s cBAAbbAAAA		
	60s AAAAAAAAAA	70s AAAAAAAAAA		
	80s BACCCA			
018002	50s -----aAAAA	60s AAAAAAAAAA		
	70s AAAAAAAA**			
018003	60s -!!!!!!!!*	70s EDAAAAAAAA		
	80s AAAAAA			
018004	70s --aAAAAAAA	80s AAAAAA		
017001	60s ----------E	70s AAAAAAAAAB		
	80s AAAAAA			
017002	60s ----------E	70s AAAAAAAAAA		
	80s AAAAAA			
017003	70s !EAAAAAAAA	80s AAAAAA		
017004	70s --EAAAAAAA	80s AAAAAA		
017005	70s EAAAAAAAB	80s AAAAAA		
017012	80s -----!!			
017014	80s - --!!			
018001	50s -------EAA	60s AAAAAAAAAA		
	70s AAAAAAAAA	80s AAAAAA		
018002	50s ---------b	60s ABAAAAAAAA		
	70s BbbAAAAAAA	80s AAAAAA		
018003	50s --------ccc	60s cccbAAAAAA		
	70s AAEAAAAAAA	80s AAAAAA		
018005	70s !EAAAAAAAA	80s AAAAAA		
018007	80s -----!!			
018008	70s ·-aAAAAAA	80s AAAAAA		
018010	80s -----!!			
018011	80s -fcAAA			
018012	80s -----!!			
018013	80s -----!!			
018014	80s -----!!			
018015	80s -----!!			
019001	50s --------AAA	60s AAAAAAAAAA		
	70s AAAAAAAAA	80s AAAAAA		
019002	60s -!AAAAAAAA	70s AAACAAAAAA		
	80s AAAAAA			
019003	60s -aAAAAAAAA	70s AAAAAAAAAA		
	80s D!!			
019004	60s AAAAAAAAAA	70s AAACAAAAAA		
	80s AAAAAA			
019005	60s --aAAAAAAA	70s AAAAAAAAAA		
	80s AAAAAA			
019006	60s -!!AAAAAAA	70s AAAAAAAAAA		
	80s AAAAAA			
019007	60s -!BAAAAAAA	70s AAAAAAAAAA		
	80s AAAAAA			
019008	60s -!!!BAAAAA	70s AAAAAAAAAA		
	80s AAAAAA			
019009	60s ---AAAAAAA	70s AAAAAAAAAA		
	80s AAAAAA			
019010	60s ----------A	70s AAAAAAAAAA		
	80s AAAAAE			
019011	60s ---cccccc	70s ccccccaaaa		
	80s AAAAAA			
019012	80s ----!!			
019014	80s -----!!			
019017	80s -----!!			
020001	60s -AAAAAAAAA	70s AAAAAAAAAA		
	80s AAAAAA			
020002	60s -!!!!EAAA	70s AAAAAAAAAA		
	80s AAAAAA			
020003	60s -!!!!AAAAA	70s AAAAAAAAAA		
	80s AAAAAA			
020004	60s -!!!!!!AAA	70s AAAAAAAAAA		
	80s AAAAAE			
020005	60s -!!!!CCCCC	70s CCCCCCAAaa		
	80s AAAAAA			
020006	70s ---cccAAAD	80s AAAAAA		
020007	60s ---------!!	70s !!!CCCAAAA		
	80s AAAAAA			
020008	80s ----!!			
021001	50s ----------e	60s AAAAEEAAE!		
	70s !!!!!!!!!!			
021002	50s -------!! e	60s aBCBAAAAE!		
	70s !!!!!!!!			
021003	50s --------- e	60s AAAAAAABAA		
	70s AAAAAAAAAA	80s ABBCCA		
021004	60s -----aAAa-	70s --------!!!		
021005	60s -EAAAAAAAA	70s AAAAAAAAAA		
	80s AABCCA			
021006	60s -EAAAAAAAA	70s AAAAAAAAAA		
	80s AAAAAA			
021007	60s -EAAAAAAAA	70s AAAAAAAAAA		
	80s AABCCA			
021008	60s aAAAAAAAAA	70s AAAAAAAAAA		
	80s AABCCA			
021009	60s -!EAAAAAAA	70s AAAAAAAAAA		
	80s AAAAAA			
021010	60s fF!EAAAAAA	70s AAAAAABAAA		
	80s A!!!!!			
021011	60s -!!EAAAAAA	70s AAAAAAAAAA		
	80s AABCCA			
021012	60s -!!EAAAAAA	70s AAAAAAAAAA		
	80s AAAAAA			
021013	60s -!!!EAAAAA	70s AAAAAAAAAA		
	80s AACCCA			
021014	60s -EAAAAAAAA	70s AAAAAAAAAA		
	80s AABCCD			
021015	60s -!!*!!EAAA	70s AAAAAAAAAA		
	80s AACCCA			
021016	60s -!***!!EAA	70s AAAAAAAAAA		
	80s AACCCA			
021017	80s -!*!!EAAAA	70s AAAAAAAAAA		
	80s AABCCA			
021018	60s -!!!!!!!EA	70s AAAAAAAAAA		
	80s AAAAAA			
021019	60s -!!!!!!!EA	70s AAAAAAAAAA		
	80s AABCCA			
021020	60s -!***!!EBA	70s AAAAAAAAAA		
	80s AABCCA			
021021	60s ----------E	70s AAAAAAAAAA		
	80s AABCCA			
021022	60s -!!!!!!!!E	70s AAAAAAAAAA		
	80s AAAAAA			
021023	60s -!!!!!!!!!	70s EAAAAAAAAA		
	80s AABCCA			
021024	60s -!***!!!!!	70s !EAAAAAAAA		
	80s AACCCA			
021025	60s -!*!!!!!!!	70s !!EAAAAAAA		
	80s AACCCA			
021026	60s -!!!!!!!!!	70s !!!EAAAAAA		
	80s AACCCA			
021027	60s -!!!!!!!!!	70s !!!EAAAAAA		
	80s AACCCA			
021030	60s -!!!!!!!EA	70s EAAAAAAAAA		
	80s AABCCA			
021031	50s ------aAAA	60s AEAAAAAAAA		
	70s AAAAAAAAAF	80s a		
021032	60s ------aAAA	70s AAAAAAAFAA		
	80s AAAE			
021034	60s -!!!!!!!FF	70s CCCCCEAAAA		
	80s AABCCA			
022001	60s ---fc'bAAA	70s AAAAAAAAAA		
	80s AAAAAAe			
022002	50s ------·aAA	60s EAEAAAAAAA		
	70s AAAAAAAAAA	80s e		
022003	50s -------aAA	60s AAEAAAAAAA		
	70s AAAAAAAAAA	80s e		
022004	60s ------aAAA	70s AAAAAAAAAE		
	80s E'!!			
022006	60s ------aDAA	70s DAAAAAAAAA		
	80s AAAAAAe			
022007	60s -------!EA	70s AAAAAAAAAA		
	80s AAAAAAe			
022008	60s ---------E	70s AAAAAAAAAA		
	80s AAAE!!			
022009	70s --EAAAAAAA	80s AAAAAAe		
023001	50s ------aAAA	60s AAAAFAAAAA		
	70s AAAAAAAAAA	80s AAAAAAe		
023002	50s ----fCCCCB	60s AAAAAAAAAA		
	70s AAABAAAAAA	80s AAAAAAe		
023003	50s -------- e	60s AAAAAAAADA		
	70s AAAABAAAAA	80s EAEAAAe		
023004	60s --eAAAAAAA	70s AAEAAAAAAA		
	80s AAAAAAe			
023005	60s ---eAAADAD	70s AAAAAAAAAA		
	80s AAAAAAe			

Stn number	Gauged daily flows, monthly peaks and rainfall																			
023006	80s	----------eAAA	70s	AAAAAAAEEA	027017	50s	------eAAA	60s	AAAAAAAAAA	028023	60s	-----eaaaa	70s	aaAAAAAE!!						
	80s	AAAAAAe				70s	AE8888CEBE	80s	E*****		80s	!!-*!!								
023007	60s	--eAAAAAAA	70s	AAAAAAAEAA	027018	50s	------eAAA	60s	AAAAABAAAB	028024	60s	--------eee	70s	eeAAAAAAAA						
	80s	AAAAAAe				70s	BBbbe--!!!	80s	---!!!		80s	AEEAEE								
023008	60s	-----EA	70s	AAAAAAAAAA	027019	50s	--- -eAAA	60s	AAEBAAAAFE	028025	60s	------eaae	70s	aaAAAAAAAA						
	80s	AEAAAAe				70s	EAAAe -!!!	80s	-- !!!		80s	AAAAE!								
023009	80s	----------e	70s	AAADDAAAE!	027020	50s	------eAAA	60s	BBAAAAABAB	028026	60s	------eaae	70s	aaAAEAAAAA						
	80s	EAAE!!				70s	AABBEBCEEE	80s	B!!!!!		80s	AAAAE!								
023010	60s	----------'	70s	EAAAAAAAAA	027021	50s	--- - --e	60s	aEEAAAAAAA	028027	60s	-----FAEAA	70s	AAAAAAE***						
	80s	e *!				70s	AAAAAAE*!!	80s	!!Aaaa		80s	!EAaa								
023011	80s	----------'	70s	EAAAAAAAAA	027022	60s	eAAAAAABAA	70s	EE*******!!	028028	70s	--eaae-!!E	80s	ee-!!!						
	80s	EAAAAAe				80s	---!!!			028029	60s	------eeee	70s	eeEAAAAEAA						
023012	70s	!EBAAAAAAA	80s	e--!'	027023	60s	eAAAAAAAAA	70s	AAAAAAAAAA		80s	AAAAE!								
023013	70s	!EAAAAAAAA	80s	A!!!!!		80s	AAAAAA			028030	60s	--------eee	70s	aaEAAAAAAA						
023014	80s	!ccccccccc	70s	cBAEE!!!!!	027024	60s	-eAAAAAAAA	70s	AAAAAAEAAA		80s	AAAAE!								
023015	40s	-!EEEEEEEE	50s	EAEAEEBBBe		80s	E! !!!			028031	60s	---------eE	70s	AeAAAAAAAA						
					027025	60s	-eAAAAAAAA	70s	AAAE!!AAAA		80s	AAAAAA								
024001	50s	---!CC	60s	CCCCCCBAAA		80s	AAAAAA			028032	80s	-----EAAAA	70s	AAAAAAEAAA						
	70s	AAAAAAEAAA	80s	EAAAAAe	027026	60s	---eAAAAAA	70s	AAAAAAAAAE		80s	AEAAE!								
024002	50s	---------eA	60s	AAAAAAAAAA		80s	***!AA			028033	60s	-----eaaaa	70s	aaAAAAAAAA						
	70s	AAAAAAAAAA	80s	AAAE!!	027027	60s	-eAAAAAAEA	70s	AAAAAE!!!*		80s	AAE*!!								
024003	50s	---------eA	60s	AAAAAAAEAA	027028	60s	-AAAAAAAAA	70s	AAAAAAAAE*	028034	80s	--*								
	70s	AAAAAAAAAA	80s	AAAAAAe		80s	!!!AAD			028035	70s	----!!!!!!	80s	!EAee						
024004	50s	-------e	60s	AAAAAAAAAA	027029	60s	-eAAAAAAAE	70s	!eAAAAAAAA	028036	60s	----------e	70s	aeAEAE!!!!						
	70s	AAAAAAAEA	80s	AAAAAAe		80s	AA!!!E				80s	---!!!								
024005	50s	----eeEAAA	60s	AAAAAAAEAA	027030	60s	-- eAAAAAA	70s	AAAAEEAAEA	028038	60s	---------e	70s	aeAEAAEAAA						
	70s	AAAAAAAEEA	80s	AAAAAEe		80s	AADAAA				80s	AAE*!!								
024006	50s	-- --!cc	60s	bAAAAAAAAA	027031	60s	----AAAAAA	70s	AAAAAAEAEA	028039	60s	--------eAE	70s	AeEAEAAAAA						
	70s	AAAAAAAAAA	80s	e		80s	AAAAAA				80s	AAAAAA								
024007	60s	--------'EA	70s	AAAAAAAAAA	027032	60s	-----!EEAA	70s	AAAAAEEAAA	028040	60s	---------ee	70s	aeAAAAAAAA						
	80s	AAAE!'				80s	AEADOA				80s	AAAAAA								
024008	70s	--eaaeaae	80s	AAEAAAe	027033	60s	---------!	70s	ccccebeeee	028041	60s	---------ee	70s	aeAAAAAAAA						
024009	70s	-------eAA	80s	AAAAAAe		80s	AAAAAA				80s	AAE!!!								
					027034	60s	-----' eBA	70s	BAAAAAAAAA	028042	70s	--!!!!!!!	80s	---!!!						
025001	50s	----eAAA	60s	AAAAAAAAAA		80s	AAAAAA			028043	60s	---------ee	70s	aeAAAAAAAA						
	70s	AAAAAAAAAA	80s	AAAAAAe	027035	60s	---------EA	70s	AAAABAEAAA		80s	AAAAEA								
025002	50s	------!!-e	60s	aAAAAAAAAB		80s	EAAAAA			028044	60s	-------- e	70s	aeAAAAAAAA						
	70s	BAAAe--'!'			027036	60s	-----' *E	70s	EE!!!!!***		80s	AAAAE!								
025003	50s	---eAA	60s	AAAEAAAAAA	027038	70s	EAAAAAAAAA	80s	EAADAD	028045	60s	-----eaaaa	70s	aeAAAAAAAA						
	70s	AAAAAaeAAA	80s	e	027039	60s	-------eAA	70s	AAAE!!!!*'		80s	AAAAE!								
025004	50s	------eAAA	60s	AAAAAAAAAA		80s	-- !!!			028046	60s	---------e	70s	aeAAAAAAAA						
	70s	AAAAAAAAAD	80s	AAEADDe	027040	70s	EBAAAAAAAA	80s	AAAAAA		80s	AAAAAA								
025005	50s	----------e	60s	AAAAAAAAAA	027041	70s	--!EAAAAAA	80s	AAAAAA	028047	70s	eaaeAAAAAA	80s	AAEEE!						
	70s	AAAAAAAEAA	80s	AAAAAAe	027042	70s	!!EAAAAAAA	80s	AAAAAA	028048	70s	-eeAAAAAAA	80s	AAAFAA						
025006	80s	eAAAAAAAAA	70s	AAAAAABAAA	027043	70s	----AAAAAA	80s	EAAAAA	028049	70s	eeeeeeeAAA	80s	AAAAE!						
	80s	AAAAAAe			027044	70s	--!!EAAAAA	80s	AAAADA	028050	70s	-eeeAAAEAA	80s	AAAAE!						
025007	60s	-eAAAAAAAA	70s	AAAAAAAAAA	027047	70s	-!BAAeAAAE	80s	AEADAE	028051	70s	-eeAAAAAAA	80s	AAAAE!						
	80s	Ft			027048	70s	-!EAAAEFAA	80s	AAAAAA	028052	70s	-eDEAAAAAA	80s	AAAAE!						
025008	60s	----!EAAA	70s	AAAAAAAAEA	027049	70s	----eaaeaa	80s	AAAAAA	028053	70s	---!!!EAAA	80s	AAAE!!						
	80s	AEAE!!			027050	70s	fccH!!	80s	!!!---e	028054	70s	-eAAAAAAAA	80s	AAAAF!						
025009	80s	- - ----e	70s	AAAEEAAAAA	027051	70s	--eaaEAAAF	80s	AEDAAA	028055	70s	-eAAAEAAAA	80s	AAE!!!						
	80s	AAAAAAe			027052	70s	------eaaa	80s	AAAAAA	028056	70s	---eAAAAEA	80s	AAAAE!						
025010	60s	----EAA	70s	AEAAE!!!!!	027053	70s	-----eEAAA	80s	AAAAAA	028058	70s	--!!EAAAAA	80s	AAAAE!						
025011	80s	----------E	70s	AAAAAAAAAA	027054	70s	----!!aae	80s	AAAAAA	028059	60s	------eaaa	70s	aaAAAAAAAA						
	80s	AAAE!!			027055	70s	--- !ccaae	80s	AADAAA		80s	AAAEE!								
025012	80s	----------E	70s	BAAAAAAAAA	027056	70s	----!!caae	80s	AAAAAA	028060	70s	--aaAAAAAA	80s	AAAEE!						
	80s	AAAAAAe			027057	70s	- !!caae	80s	AAAAAA	028061	70s	--!!-AAAAA	80s	AAAAE!						
025013	80s	-----E	70s	EEALE***!!'	027058	70s	----!c:aan	80s	AAAAAA	028068	70s	---eAAAAAA	80s	AAALAF						
026014	60s	----------E	70s	AEF*!!!	027059	70s	--------eAE	80s	EAAAAA	028067	70s	---aaaaaa	80s	AAAAAA						
025015	60s	-------e	70s	eee	027060	70s	----------e	80s	AAAAAA	028070	60s	-----!!!!	70s	eeeeeeeaa						
025016	70s	--------!!!	80s	! !!	027061	70s	---------ee	80s	AAAAAA		80s	AAE!!!								
025018	70s	!EEAAAAAAA	80s	AEEAAAe	027062	70s	--- -e	80s	AEAAAA	028071	80s	-----!								
025019	70s	!EAAAAAAAA	80s	AAAAAAe	027063	80s	eeeDA			028072	70s	-----EAAAA	80s	AAAEE!						
025020	70s	--LAAAEAEA	80s	AAAAAAe	027064	70s	-----e	80s	aaaaAD	028073	70s	------eeee	80s	aaeee						
025021	70s	!!!EBAAAAA	80s	AAAAADe	027065	70s	----------e	80s	eDaaAA	028074	70s	---------ee	80s	aaaee						
025022	70s	----aaeaaa	80s	a !!	027066	80s	----AA			028075	70s	-------- - e	80s	aae						
025023	70s	EAEEAAEAA	80s	AAE!*!	027067	80s	----AA			028077	80s	eeeee								
025024	70s	------ee			027068	80s	----aa			028079	80s	-eaaae								
025025	70s	---------H	80s	H!!	027069	80s	----AA			028080	50s	--------fCF	60s	FCCFCCCCCC						
025026	70s	----H	80s	H!!	027071	80s	eaaAAA				70s	CCCCCCCCCC	80s	CBAAAA						
025027	70s	---------H	80s	H!!!	027072	80s	----AA			028081	80s	--eeee								
025028	70s	---------H	80s	H!!!	027073	80s	--- AA			028082	70s	---!!!!!!!	80s	!!EAEA						
					027074	80s	----AA													
026001	50s	---eAAABBB	60s	BBBBBABABB						029001	60s	eAAAAAAAAB	70s	AAAAAAAAAE						
	70s	AEABE*!!!!	80s	----!**	028001	30s	---ccebeAA	40s	BCCCCCCCCB		80s	ADAAAF								
026002	60s	-eAAAEBBBB	70s	EAAAAAAEBE		50s	AAAAAAAAAA	60s	AAAAAAAAAA	029002	60s	--eAAAAAbA	70s	AAAAAAAAAA						
	80s	B*CCCF				70s	AAAAAABAAA	80s	AAAAAA		80s	AAAAAE								
026003	50s	----------e	60s	AAAAAAAAAB	028002	30s	--- eAA	40s	AAAAAAAAAA	029003	60s	---------FA	70s	AAAAAAAAAA						
	70s	AAAAEEEAAA	80s	AAAAAA		50s	AABAAAAAAA	60s	AAAAAAAAEE		80s	AAAAA								
026004	70s	!EE!BEFEBA	80s	AAAAAB		70s	EAAAAEAAAA	80s	AAAAE!	029004	60s	------ -EA	70s	AAAAAAAAAA						
026005	80s	-daaAA			028003	50s	---- eAAAA	60s	AAAAAAAAAA		80s	AAAAAF								
026006	80s	----aa				70s	AAEAAAAAAA	80s	AAF!!!	029005	70s	-EAAAAAAAA	80s	AAAAAF						
					028004	50s	-- --fbAE	60s	EAAFAAAAAA	029009	70s	----eaaaaa	80s	AAAAAE						
027001	30s	-----eAAE!	40s	!EBAABCCF!		70s	AAAAAAAAAA	80s	AAE**!											
	50s	!!!FAAAAAE	60s	AAAAAAAAAA	028005	50s	-----!ccbA	60s	AAAAAAAAAA	030001	50s	----------F	60s	AAAAAAAAAA						
	70s	AAAAAAAAAA	80s	AE!!*!		70s	AAAAAAAAAA	80s	AAAAE!		70s	AAAAAAAAA	80s	AAAAAA						
027002	30s	--------EE!	40s	!!!***!!*:	028006	50s	--------eeA	60s	AAAAE!!!!!	030002	60s	eAAAAAAAA	70s	AAAAAAAE*						
	50s	!!!!!EAAAA	60s	AAAAABABAA		70s	!!!***!!!:	80s	!!!!!!		80s	EEE!!!								
	70s	AAAAAAAAAA	80s	AAAAAA	028007	50s	--------eAA	60s	AAAAAAE!!!	030003	60s	--eAAAAABE	70s	AAAAAAAAAA						
027003	50s	----------ee	80s	eeAAAAAAAA		70s	!!!!!!!!!!	80s	!!!!!!		80s	AAAAAF								
	70s	AAAAABBAEE	80s	AIAAAA	028008	50s	---eAAAAAA	60s	AAAAAAAAAA	030004	60s	--eEABAAAB	70s	AAAAADAAAF						
027004	60s	eAAAAAAAE!	70s	!!EAAAE!!!		70s	AAAAAAAAAA	80s	AAAAAA		80s	AAAAAA								
027005	30s	- - --!Cf-	40s	-----eAAAA	028009	50s	-- - -eA	60s	AAAAAAAAAB	030005	60s	---------EA	70s	AAAAAAAAAA						
	50s	ABCCCCCCCB	60s	BBAAAAAAAA		70s	AAAAAAAAAA	80s	AAAAAA		80s	AAAAAF								
	70s	AABBCCCCCC	80s	C!CFCF	028010	30s	-----!FFCC	40s	CCC!-CCCCCC	030006	70s	----EBBAAA	80s	AEEAAE						
027006	60s	---eAAAA	70s	AAAAAAAAAA		50s	CCCCFCCCCC	60s	CCCCCCCCCC	030011	70s	-EAAAAAAAA	80s	AAAAAF						
	80s	AAAAAA				70s	CCCCBAAAAA	80s	AAAAAA	030012	70s	EAAAAAAAAA	80s	DEEAEE						
027007	50s	-- -----eA	60s	AAAAAAAAAA	028011	50s	--------eE	60s	EEAAAAAAAA	030013	70s	------eaaa	80s	ADAAAE						
	70s	EBDAAAAAEE	80s	AAAAAA		70s	EEAAAAAAAA	80s	AAAAAA	030014	70s	--eeaaBAAA	80s	BDAAAE						
027008	50s	-----eAAAE	60s	AAAAAAAAAA	028012	50s	---------e	60s	AAAAADAAAE	030015	70s	-------eaaa	80s	AAAAAE						
	70s	AAAAAEFEAE	80s	AEDEE!		70s	AAAAAAAAAA	80s	AAAAAA	030017	70s	---------ee	80s	ADFAAF						
027009	60s	-!!!!!!!!E	70s	BBCBFFADAE	028014	60s	bAAABC!EAA	70s	AAAAAAAE!!	030018	80s	-----!								
	80s	AEAAAA				80s	!!!*!!													
027010	30s	------!c!c	40s	!!!!!!!H	028015	60s	---- eeE!A	70s	EEF!!!*!!E	031001	30s	--------!Cf	40s	CCCCC!----						
	50s	cH!bAAAAA	60s	BAALAAAAAA		80s	--aEE				50s	---!BAAAAA	60s	AAAAAAAAEA						
	70s	ABAAAAEEAE			028016	60s	-----eAAAA	70s	AAAAAAAAE!		70s	AABAAAAEAB	80s	BAAAAA						
027011	50s	---eAAAAAA	60s	AAAAAAAAAA		80s	!!!!!*			031002	60s	eBBAAAAAAA	70s	BBAAABABAA						
	70s	AAABCCF!!!			028017	60s	------eaaa	70s	aaAFAAFAE!		80s	AAAAAA								
027012	50s	----eAAAAA	60s	AAAAAAAAAA		80s	!!!!!!			031004	60s	--------bAA	70s	BBBBBBBBAA						
	70s	AAAE!!!!!:			028018	60s	-eAAAAAAAA	70s	AAAEAAAAAA		80s	AAAAAA								
027013	50s	----eAAAAA	60s	AAAAAAAAAA		80s	AAAAAA			031005	80s	---!!!								
	70s	AAABB8CBLE	80s	b--!!!	028019	60s	------eAAA	70s	AAAEAAAAAA	031006	60s	--------EAA	70s	BAAAAAAAAA						
027014	50s	---------eA	60s	AAAAAAAABA		80s	AAAAAA				80s	AAAAAA								
	70s	EE*'!!'!!!	80s	--!!!	028020	50s	----!CFCFC	60s	BAAAAAAEee	031007	60s	---------FL	70s	EBCCCBCBAA						
027015	80s	-eAAAAAAAA	70s	AAAAAE!!:'		70s	aaAAAAAAAA	80s	AAE!!!		80s	AAAAAA								
	80s	---!!!			028021	60s	----!EAAEA	70s	EEEEAAAA!!	031008	70s	eEEEEEEAEE	80s	AEEEEE						
027016	50s	----eAAA	60s	AAAAAAAAAA		80s	---!!!			031009	70s	!EEEEFFEEF	80s	EEEEEE						
	70s	AE888CEEE	80s	B!!!!!	028022	60s	----- -aa	70s	aaAAAAAAAA	031010	60s	---------DA	70s	ABADBAAAAA						
						80s	AAAAE!				80s	AAAAAA								

Stn number	Gauged daily flows, monthly peaks and rainfall			
031011	60s ----------E	70s EEEEBBEEEE		
	80s EEEeee			
031012	60s ----------E	70s EEEEEEEEEE		
	80s EEEeee			
031013	60s ----------E	70s BEBBBEEEAA		
	80s DEEEEE			
031014	60s -- --F	70s EEEBEEEEEE		
	80s LLEeee			
031015	70s eeBBBBEEEE	80s EEEeef		
031016	60s ----------E	70s AEAAAAAAAA		
	80s AAAAAA			
031017	70s EEBBBBEFFE	80s EEEeee		
031018	70s --LLEEEEEE	80s EEEeee		
031019	70s -EEEEEEEEE	80s EEEeee		
031020	70s efFBBBELEE	80s EEEeee		
031021	70s eEAEEEEEAA	80s AEEEEE		
031022	60s ---------1	70s BEBEBBEEEE		
	80s LEEeee			
031023	70s EEAEBBAB	80s AAAAAA		
031024	70s -EAAEEEEEE	80s EEEeee		
031025	70s ---------ee	80s EAAAAA		
031026	70s -1111111EA	80s AAAAAA		
031027	80s -eddee			
031028	80s --fbee			
032001	30s -------1	40s aBAAAAAAAA		
	50s ABAAAAAAAB	60s BAAABAABCC		
	70s BAAARBCCAA	80s BAAAAA		
032002	30s ---------eA	40s AABABABABA		
	50s BABABBAAAB	60s AABBAAAAAA		
	70s BAAAAAAAAA	80s AAAAAA		
032003	30s ---- . eA	40s ABBAABAAAB		
	50s AAAAABABAB	60s BBAABEAAAA		
	70s AAAAAAAAAA	80s AAAAAA		
032004	40s ---aAABAAA	50s AAAAAAAAAB		
	60s BBBAEEAAAE	70s AAAAAAEAAA		
	80s AAAAAA			
032006	30s ----------1	40s cccccccccc		
	50s cccccccccc	60s ccccccccB		
	70s BAAAAAAAAA	80s AAAAAA		
032007	30s ---1	40s cccccccccc		
	50s cccccccccc	60s cccccccccc		
	70s BAAAAAAAAA	80s AAAAAA		
032008	40s -----aAAAB	50s AAAAABABAA		
	60s BBBBBAEAEA	70s AAAAAAAAAA		
	80s AAAAAA			
032009	80s ----ee			
032012	60s - E	70s FFFFEEEEEE		
	80s FFF			
032015	60s ----------B	70s BRBBBBFEEE		
	80s EEEeee			
032016	70s -eLLLLLEEE	80s EEEeee		
032018	70s fEEEEEEEEE	80s FFEf		
032019	70s fffFFFFEEE	80s EEEeee		
032020	70s EAAAAEAEAB	80s ABAEAE		
032023	70s -BBBBFFFEE	80s EEf-ee		
032024	70s -EEEEEEEEE	80s EEEeee		
032025	70s EFFFFFFFF	80s EEEeee		
032026	70s -eeeeeeEEE	80s EEEeee		
032027	70s EFFEFFFFF	80s LLLeee		
032029	70s ---eeeeeee			
032030	70s E	80s FFE--11		
032031	80s --eeee			
033001	30s ------1cCC	40s ECCCCCCCCC		
	50s FFCCCCCCCC	60s CCFf*1111*		
	70s !!!!!!!!**			
033002	30s ---cCCcCBB	40s BRRRRCCCCC		
	50s CCCCCCCCCB	60s BAAAAAAAAB		
	70s BAAAAAAAAB	80s BAABAA		
033003	30s ----1CCC	40s CC1CCCCCCC		
	50s BAEABBABCC	60s BAAAAAAAAA		
	70s ACCCCCCCCC	80s CCCCC1		
033004	30s ------1CCC	40s CCCCCCFFCC		
	50s CCCCCBABCC	60s CCCCCCFC1C		
	70s CCCCFCCCCC	80s CFCCCF		
033005	50s -fbCCCCCCC	60s BAAAABBCCB		
	70s RCBBRRBBCR	80s B111*1		
033006	50s ------aBCC	60s BAAAAAABBB		
	70s ABAABAABAB	80s ABBBBB		
033007	50s --eRCCCCC	60s CCCCCBBBAB		
	70s BAAAAABAAA	80s AABBAA		
033008	50s - fc	60s cbaaabbe		
033009	50s ----nABCC	60s BAEAAAAAAA		
	70s BABCAAAAAA	80s BAAAEA		
033011	60s aaAAAAAABA	70s BAAAAAAAAA		
	80s BAAAAA			
033012	60s aAAAAAAEA	70s BAAAAAAAAA		
	80s AAAAAA			
033013	60s nAAAAAAAAA	70s AAAAAAAAAA		
	80s AAAABA			
033014	60s aAAAAAAAAA	70s ABAAAAAAAA		
	80s AAAAAA			
033015	60s --AAAAAAAA	70s AAAAAAAABB		
	80s AAAAEA			
033016	60s aAAEEEFEfI	70s 1111CCCCCC		
	80s CCCFII			
033017	70s -----111			
033018	60s --EAAAALEA	70s AAAAAAAAAA		
	80s BAAABB			
033019	60s --aAAAAALA	70s ABAAAAAAAB		
	80s AAAAAA			
033020	60s aAEFFEF	70s LBBEBAAAAA		
	80s AABAAB			
033021	60s -aAAAAAFF	70s LBBAAAAAAA		
	80s BAABAB			
033022	60s --- FAAAA	70s AAAAAAAAAA		
	80s AAAAAB			
033023	60s -aAAAAFA	70s AAEAAAAAAA		
	80s AAAAAB			
033024	40s ----- e	50s EFBC*111**		
	60s !11aAAAAAA	70s ABAAAAAAAA		
	80s AAAAAA			
033025	60s EAAAAA	70s AAE1BCF111		
033026	70s -fCCCCICCC	80s CCCCFC		
033027	60s aAABB	70s BBAAAAAAAA		
	80s ABHAAB			
033028	60s ------EAEE	70s AFAAAAAAAA		
	80s ABAAAB			
033029	60s -----aAAEA	70s AE11AAABAA		
	80s AAAABE			
033030	60s ------1111	70s 1111111118		
	80s E1			
033031	70s cBAABAABAA	80s AAAAEA		
033032	60s -----EAAAA	70s AAAAAAAAAA		
	80s AAAAAA			
033033	70s ---1AAAAAA	80s AAAAAB		
033034	60s --------1BA	70s AAAAAAAAAA		
	80s AAAAAA			
033035	50s --------fC	60s CCCCCCCCCC		
	70s CCCCCcCC111	80s 111111		
033037	60s ----------E	70s ABAAAAAAAA		
	80s AAAAAB			
033039	70s --EAAAABAA	80s AABBAB		
033040	70s 1EAAAAAAAA	80s aaaABB		
033044	60s -------1cc	70s cc1ABAAAAA		
	80s ABAAAB			
033045	60s -------1cc	70s cc1AAAAAAA		
	80s BABAAB			
033046	60s ----- fcc	70s cC1AABAAAA		
	80s BAAAAB			
033049	60s -------fcc	70s cc-aaaaaaa		
	80s e			
033050	70s ----FFCCCC	80s BCCBee		
033051	60s ----1ccccc	70s caaabaabbe		
	80s AAAAEA			
033052	70s ---aAAABA	80s AAABEA		
033054	70s ------1CAA	80s AABAAB		
033055	70s ------fBAA	80s AAAAAB		
033056	70s -----1CCCB	80s AAAAEA		
033057	70s --- FBAA	80s AAAALA		
033058	70s ------11EA	80s AAAAea		
033059	80s ----ee			
033060	60s ----------1	70s cffccccccc		
	80s ccccfc			
033062	80s -----nB			
033063	80s eeeeeE			
033064	80s eeeeee			
033065	80s fccceA			
033066	80s -eeeeE			
033067	80s --eeeA			
033068	80s --fceB			
034001	50s ----------e	60s AAAAAAAAAA		
	70s AAAAAAAAAA	80s AAAAAA		
034002	50s --------eAA	60s AAAAAAAAAA		
	70s aAAAAaAAAA	80s AEEAAA		
034003	50s ----------e	60s AAAAAAAAAA		
	70s AAAAAAAAAB	80s AABAAA		
034004	60s aAAAAAAAAA	70s AAAAAAAAAB		
	80s ABAAAA			
034005	60s -aAAAAAAAA	70s AAAAAAAAAB		
	80s ABAAAA			
034006	60s ---aAAABAA	70s AAAAAAAAAA		
	80s AAAAAB			
034007	60s ------eAAB	70s AAAAAAAAAA		
	80s AAAAAA			
034008	60s ------EABA	70s AAAEEAAAAF		
	80s FCFD88			
034010	80s ---------ee	70s aaAAAAAAAA		
	80s DABAAE			
034011	60s ------bAAA	70s AEAAEAARBE		
	80s ABAAAA			
034012	60s ------aAAA	70s AAAAAAAAAA		
	80s AAAAAA			
034013	70s --EFFAEAAB	80s AOEDAE		
034014	60s ---------b	70s aaAAAAAAAA		
	80s AFEDAA			
034018	70s --1111AAAE	80s AAAAAF		
034019	70s ----FAAAAA	80s AAAAAA		
035001	60s -**1EEF111	70s 1*****1111E		
	80s be!-be			
035002	60s ----aAAAAA	70s AAAAAALAAB		
	80s AAAAAB			
035003	60s -aAAAAAAAA	70s AFAAAAAAAA		
	80s ABBAAA			
035004	60s -----EAAAA	70s AAAAAAAAAB		
	80s ABBAAA			
035008	60s ------FAAA	70s AAAAAAAAAA		
	80s ABBAAA			
035009	60s -----11111	70s 1111--1111		
035010	60s ----------e	70s aAAAAAAAAF		
	80s ABBAAA			
035011	80s 1111			
035012	70s --------111			
035013	60s ----------1	70s EAAAAAAAAB		
	80s ABAAAF			
036001	20s -------- CC	30s 1FCCCCCCCC		
	40s CCCCCCCCCC	50s CCCCCCCCCC		
	60s CCCCCBAAAB	70s BRRBABCCCC		
	80s CCCFFF			
036002	60s fCCCCBAABA	70s AAAAAAAAAA		
	80s AAADAE			
036003	60s fCCCCBAAAA	70s AAAAAAAAAA		
	80s AAAAAA			
036004	60s -----1CCBA	70s AAAAAAAAAA		
	80s AAAAAF			
036005	60s --1CCBAAAA	70s AAAAAAAAAA		
	80s AAABAA			
036006	60s --fCCBAAAA	70s AAAAAAAAAA		
	80s AAAAAA			
036007	60s fCCFBAAAAA	70s AAAAAAAAAA		
	80s AAAAAE			
036008	60s CCBCCBAAAA	70s ABAAAAAAAA		
	80s AAAAAF			
036009	60s -- -----BA	70s AAAAAaAAAA		
	80s AAAAAF			
036010	60s --- EA	70s AAAAAAAAAA		
	80s AAAAEA			
036011	60s --------EA	70s AAAAAAAAAA		
	80s AAAAAE			
036012	60s --------EA	70s AAAAAAAAAA		
	80s AAAAAA			
036013	60s '1111111*1	70s 1FEEEFEE*1		
	80s FFFFFF			
036015	70s --EABAAABA	80s AAABAL		
036016	70s eeeeeeee			
036017	70s -ebaaaaaee	80s bee		
037001	50s eAAAAAAAAA	60s AAAAAAAAAA		
	70s AAAAAAAAAA	80s AAAAAAe		
037002	30s --FCCCCcCC	40s CBBCCCCCCC		
	50s CBBCCBCCBB	60s BBBCBBBBAA		
	70s BAAAAAAAAA	80s AAAAAA		
037003	30s --fCCCCCCC	40s CCCCCCCCCC		
	50s CCCCCCCCCC	60s CCCCCBAAAA		
	70s AAAAAAAAAA	80s AAAAAB		
037004	30s --fCCCCCCC	40s CCCCCBBBEE		
	50s ABAAABABAB	60s ABAABBAAAE		
	70s 1111111111			
037005	50s ----------f	60s CCCCCBAABB		
	70s AAAAAAAAAA	80s AAAAAA		
037006	60s --eCCBAAAA	70s AAAAAAAAAA		
	80s AAAAAA			
037007	60s ----fBAAAA	70s AAAAAAAAAA		
	80s AAAAEA			
037008	60s -----eAAAA	70s AAAAAAAAAA		
	80s AAAAAA			
037009	60s --fCCBAAAA	70s AAAAAAAAAA		
	80s AAAAAA			
037010	60s --fCCBAAAA	70s AAAAAAAAAA		
	80s AAAAAA			
037011	80s ---fCBAAAA	70s AAAAAAAAAA		
	80s AAAAAA			
037012	80s ---fCBAAAA	70s AAAAAABAAA		
	80s AAAABL			
037013	80s ---fCBAAAA	70s AAAAAAAAAA		
	80s AAAABA			
037014	60s ---fCBAAAA	70s AAAAAAAAAA		
	80s AAAAAe			
037015	70s -------e-e	80s EEAAAAe		
037016	60s -----FAAAA	70s AAAAAAAAAA		
	80s AAAAAA			
037017	60s ----------E	70s AAAAAAAAAA		
	80s AAAAAA			
037018	70s EAAAAAAAAA	80s AAAAABe		
037019	60s -----EAAAB	70s AAAAAABEEA		
	80s AAAAADe			
037020	60s ----------1	70s EAAAAAAAAA		
	80s AAAABA			
037021	80s ----------1	70s EAAAAAAAAA		
	80s AAAAAA			
037022	80s ----------1	70s EAAAAAAAAB		
	80s AAAABE			
037023	70s -EAAAAAAAA	80s AAE111		
037024	70s -EAAAAAAAA	80s AAABBB		
037025	60s -----CBAAE	70s EEEE111---.		
	80s ---1			
037026	60s -ebaaebaee	70s aaaaaee		
037027	60s feeeebaaa	70s ee		
037028	60s feeaaebaaa	70s aaaaeee		
037029	60s eeaaaebcaa	70s baaeeee		
037030	60s --EEEBBAAB	70s e		
037033	70s -----eeaa	80s AAAAAE		
037034	70s ----------a	80s aeedae		
037035	80s 1!			
037036	70s -ebaebbeea	80s aeadae		
037037	80s -eeeie			
037038	50s -aaaee--ee	60s beeecabbab		
	70s abbee			
037039	70s ----------e	80s eeeEEE		
038001	30s ------1CCC	40s CCCCCCCCCC		
	50s CCCCCCCCCC	60s CCCCCAAAAB		
	70s BAAABC1IFC	80s CCCCBAe		
038002	80s eaaaae			
038003	50s --aAAAAAAA	60s AAAAAAAAAA		
	70s AAAAAAAAAA	80s AAAAAAe		
038004	70s ----------a	80s aaAAAe		
038005	60s aAAAABABAA	70s AAAAAAAAAE		
	80s FE1***1			
038006	50s ------1CCC	60s CBAAAAAABA		
	70s AAAABAAAAA	80s EEE		
038007	60s -----LAAAA	70s AAAAAAEAAA		
	80s AAAAAAe			
038011	50s --------fCC	80s CCCCCB8888		
	70s BABBBBBAAA	80s AAAAE1		
038012	50s -- ------11	60s 1111111111		
	70s 1111FAAAAA	80s AAAAAAe		
038013	60s eeabbbeeee	70s aaaaabaee		
	80s AAAAABe			
038014	50s ------eccc	60s cccccccccc		
	70s ccccccbaaa	80s EAAAAAe		
038015	60s ----------F	70s AAAABAAAAA		
	80s A1e			
038016	60s ---------1E	70s AAEAFERBAA		
	80s aabeee1			
038017	70s abAAAAAAAA	80s AAAAAAe		
038018	70s -eAAAABAAA	80s AAAAAAe		
038019	70s -eBAE1E111	80s 11		
038020	70s -EAAAAAAAA	80s AAEEAAe		
038021	70s -eAAAAAAAA	80s AAAAAAe		
038022	70s --fCCCAAAA	80s AAAAAAe		
038023	80s eedaae			
038024	70s ---EAAAAAA	80s AAAAAAe		
038025	50s ----eabbbb	60s baabaaaaab		
	70s aaeff			
038026	70s ----EAAAAA	80s AAAAAAe		
038028	70s -------eeee	80s AAAAAAe		
038029	70s --------ee	80s AAAAABe		
038030	70s ----------e	80s AAAAAAe		
038131	80s ee			
039001	80s ---fCCCCCC	90s CCCCCCCCCC		
	00s CCCCCCCCCC	10s CCCCCCCCCC		
	20s CCCCCCCCCC	30s CCCCCCCCCC		
	40s CCCCCCCCCC	50s CCCCCCCCCC		
	60s CCCCCCCCCC	70s CCCCCBAAAA		
	80s BHAAee			
039002	30s ---------fC	40s CCCCCCCCCC		
	50s CCCCCCCCCC	60s CCCCCCCCCC		
	70s CCCCCCCCCC	80s CCCCCC1		
039003	60s - -eAAEEEEE	70s eEAEEEEE1E		
	80s AE111Fle			

Stn number	Gauged daily flows, monthly peaks and rainfall											
039004	30s	-------eEEA	40s	AAFI:EFEEET	040003	50s	-------eAAA	60s	AAAAABEEFF	043006	60s	--------AAA	70s	AABAAAAAAA
	50s	I***IEAAAAA	60s	AAAAEAEEEE		70s	FFCFCCCCCC	80s	BBBADA'		80s	AAEDAA		
	70s	IEFAEEAI'E	80s	EE:IFA	040004	60s	--eAAAAEEB	70s	AAAAAEAAAE	043009	60s	------- eA	70s	AAAAAAAAAA
039005	30s	-----eeee-	40s	------		80s	EAACCDe				80s	AAAAAA		
	50s	----eeAAAe	60s	eeeEEEEEEE	040005	50s	-------eA	60s	AAAAAAAAB8	043010	60s	---------'	70s	EAAAAAABAA
	70s	EEEAEEEI1B	80s	AEF'CA		70s	AABEAEAAAE	80s	AAAAAE		80s	AA1111*		
039006	50s	eAAAAAAAAA	80s	AAAAAAAAAA	040006	50s	---------e	60s	AAAAAAAB88	043011	70s	tecc#1111		
	70s	AAAAAAAAAA	80s	AAAAAAe		70s	AABEAEAEEE	80s	EEEI*I	043012	60s	-------**11	70s	IEAAAAABAA
039007	50s	eAAAAAAA	60s	AAAAAAAAAA	040007	60s	eAAAAAEEBA	70s	AAAAAAAAAE		80s	AAABAB		
	70s	AAAAAAAAAA	80s	AAAAAAe		80s	EEAEDE			043013	60s	---------'	70s	tEBABBBAAA
039008	50s	-fcccCCCCC	60s	CCCCCCCCCC	040008	60s	--eAAAABA	70s	AAAABEAAEE		80s	AEEE*I		
	70s	CCCCCCCCCC	80s	CCCCCCf		80s	AADAAAe			043014	60s	-------**11	70s	IEAAAAAAAA
039009	50s	----------f	60s	CCCCCBAAAB	040009	60s	-eABBBAABA	70s	AAAAEABDAA		80s	AAAAAA		
	70s	CCCCCF***I	80s	*11		80s	AAAAAAe			043015	60s	-------:*11	70s	tFFFFF+111
039010	50s	--eAAAAAAA	60s	AAAAAAAAAA	040010	60s	-eAAAAAABA	70s	AALALAEADE	043017	80s	------**11	70s	tEAAAAAAAA
	70s	AAAAAAAAAA	80s	AAAAAAe		80s	DDAAAAe				80s	AAAEAE		
039011	50s	----eAAAAA	60s	AAAAAAAAAA	040011	60s	----eAABAA	70s	AAAAABABAA	043018	70s	----aaaaa	80s	aAAAAA
	70s	AAAAAAAAAA	80s	AAAAAAe		80s	BADDAAe			043019	70s	---EAAAAAA	80s	AABAAB
039012	50s	EAAA	60s	AAAAAAAAAA	040012	60s	---eAAAAAA	70s	AAAAAAAAAA	043021	70s	-----BBBAB	80s	bbbCCF
	70s	AAAAAAAAAA	80s	AACIEDe		80s	AAAAAAe							
039013	30s	----aaaaa	40s	aaaaaaaaa	040013	60s	- ---IE	70s	AAAAAAAAAA	044001	60s	-eAAABCBBA	70s	AAAABAAAAA
	50s	aaaaAAAAA	60s	AAAAAAAAAA		80s	AAAAAAe				80s	AAAaae		
	70s	AAAAAAAAEA	80s	AAAAABe	040014	70s	-e-nEEIAEE	80s	DEDFII	044002	60s	---eAAAADO	70s	AAAAAAAAAA
039014	50s	----- eAAA	60s	AAAAAAAAAA	040015	60s	---------E	70s	EEAAAAAAAE		80s	AAAAAA		
	70s	AAAAAAAAAA	80s	AAAAAAe		80s	EDEEEI			044003	60s	------BAAA	70s	AAAAABBAAA
039015	60s	---eAAAAAA	70s	AAAAAAABCB	040016	80s	--- IE	70s	AAAAAAAAAA		80s	e		
	80s	AAAAAAe				80s	AAAAAAe			044004	60s	- - **IE	70s	AAAAAAAAAB
039016	60s	-eAAAAAAAA	70s	AAAAAAAAAA	040017	70s	-BEAEEBBDE	80s	EEDEEI		80s	BBAAee		
	80s	AAAAAAe			040018	80s	-- ·IEE	70s	ABAAAAAAAB	044006	60s	-------**IE	70s	AAAAABAAAA
039017	60s	--eABAABBC	70s	CCCCCCCCCC		80s	CFEaaee				80s	AAAAEB		
	80s	cc **'			040020	70s	---eeeeede	80s	EEAEI*	044008	70s	----IEBAAAA	80s	AA1111
039018	60s	--eAAAAAAA	70s	AAAAAAAAEE	040021	70s	- - EEEAE	80s	DDEDE:	044009	70s	-----naaaa	80s	aBAAEB
	80s	cf			040022	80s	:::::::							
039019	60s	eAAAAAAA	70s	AAAAAAAAAA	040023	70s	----------e	80s	EDEDE*	045001	50s	--eAAA	60s	AAAAAAAAAA
	80s	AAAAAAe			040024	70s	-- eeeeee	80s	EF**II		70s	AAAAABAAAA	80s	AAAAAA
039020	60s	---eAAAAAA	70s	AAAAAAAAAA						045002	60s	-eAAAAAAAB	70s	AAAAAAAAAA
	80s	AAAAAAe			041001	50s	eaAaaAAAAA	60s	AAAAaAAAAA		80s	AAAAAA		
039021	60s	-----EAAAA	70s	AAAAAAAAAA		70s	AAAAAAAADA	80s	AAAAAAe	045003	60s	--eAAAAAAA	70s	AAAAAAAAAA
	80s	AAAAAAe			041002	50s	-aaaAAAAAA	60s	AAAAAAAAAA		80s	AAAAAA		
039022	60s	--eAAAA	70s	AAAAAAAAAA		70s	AAABAAAAAA	80s	ADADAAe	045004	60s	eAAAAA	70s	AAAAAAAAAA
	80s	AAAAAAe			041003	50s	---------e	60s	AAAAAAAAAA		80s	AAAAAA		
039023	60s	----eAAAAA	70s	AAAAAAAAAA		70s	AAAAAAAAAA	80s	DAAADAe	045005	60s	---eAAAAAA	70s	AAAAAAAAAA
	80s	AAAAAAe			041004	50s	---- eaaa	60s	aaaAAAAAA		80s	AAAAAA		
039024	50s	--eaaa:AAA	60s	AAABAAAAAA		70s	ABBBAAAAAF	80s	IFCCCCf	045006	60s	----aeAE**	70s	I**:*****I
	70s	AAAAAAAA:I	80s	I**	041005	60s	eAAAAAAAAA	70s	AAAAAAAAAA	045008	70s	-*IEAAAAA	80s	AAAAAA
039025	60s	-------eAA	70s	AAAAAAAAAA		80s	AADDAAe			045009	80s	-aaaaa		
	80s	AAAAAAe			041006	60s	----eBAAAA	70s	AAAAAAAAAA					
039026	60s	-eaaa	70s	eAAAAAAAAA		80s	AAAAAAe			046001	50s	---I--	60s	------*III
	80s	AAAAAAe			041009	50s	---------F	60s	CCCCCCCCCC		70s	-II*IIII*	80s	IIII*I
039027	60s	---------eA	70s	AAAAAAAAAA		70s	CCCCCCF*II:			046002	50s	------eAAA	60s	AAAAAAAAAA
	80s	AAAAAAe			041010	60s	eeAEADDAA	70s	ABEDDDDDDA		70s	AAAAAAAAAA	80s	AAAAAA
039028	60s	--------FA	70s	AAAAAAAAAA		80s	DDDADAe			046003	50s	--------eA	60s	AAAAAAAAAA
	80s	AAAAAE			041011	60s	------EAAA	70s	AAAAAAAAAA		70s	AAAAAAAAAA	80s	AAAAAA
039029	60s	IEA	70s	AAAAAeAAAA		80s	DDAAAAe			046004	60s	*II --***	70s	IIIII**III
	80s	AAAAAAe			041012	60s	------IEAA	70s	AAAAAAADAA		80s	*IIIII		
039030	70s	EAAAAAAAAA	80s	AAAAAEe		80s	DDAADAe			046005	60s	----EAAAAA	70s	AAAAAAAAAA
039031	60s	--eaaaaaa	70s	aaaaaaaaa	041013	50s	eaaaaaaaa	60s	aaaaAAAAA		80s	AAAAAA		
	80s	AAAEII				70s	AAAAAAAAAA	80s	DDAEADe	046006	70s	----aaaaa	80s	aAAAAE
039032	60s	------eaaa	70s	aaaaaaaaa	041014	70s	eAAAAAADAD	80s	AAAAAAe	046007	70s	--eAAAAAAA	80s	AF
	80s	AAAFII			041015	60s	--EAA	70s	AAADDAADDD	046008	70s	-aaaaaaaaa	80s	aF
039033	60s	--aaaaaaa	70s	aaaaaaaaa		80s	DAAAAAe							
	80s	AAAAAAe			041016	30s	----------1	40s	-11*IIII*	047001	50s	-------eAAA	60s	AAAAAA8888
039034	70s	eAAAAAAAAA	80s	AAAAAAe		50s	IIIIII*III	60s	II*****IEAA		70s	AAAAAAAAAA	80s	AAAAAA
039035	60s	---------IE	70s	AAAAAAAAAA		70s	AAAAAAAAAD	80s	AAAAAAe	047002	50s	-------eaaa	60s	aEIIIII*I*
	80s	AAAAAAe			041017	60s	--e	70s	aaaaaaaade		70s	I*IIIIIIII		
039036	60s	---------ee	70s	aaaaaaaaa		80s	AAAAAA			047003	50s	--------ebe	60s	--------*II
	80s	AAAAAEe			041018	60s	----------e	70s	aABAAABAAA		70s	I:I:EEEAAE	80s	F**III
039037	70s	-IEAAAAAAA	80s	AAAAAAe		80s	DAAADAe			047004	60s	- eAAEAEA	70s	AAAAAAAAAA
039038	60s	---------ee	70s	aaaaaaaaa	041019	70s	eaaaaaaaa	80s	AAADAAe		80s	AAAAAA		
	80s	AAEEBEe			041020	60s	----e	70s	aABAAAAAAA	047005	60s	eAAAAAA	70s	AEE:IIIIFA
039040	70s	-IEAAAAAAA	80s	AAAAAA		80s	AAADAAe				80s	AF		
039042	70s	EAAAAAAA	80s	AAAAAAa	041021	60s	----e	70s	aBABAABBFD	047006	60s	---eAAEAEE	70s	EFII*EAAAE
039043	60s	--eaaaaAAA	70s	AAAAAAAAAA		80s	AABBBAe				80s	AF		
	80s	AAAAAAe			041022	70s	eAAAAADDDD	80s	ADAAAAe	047007	60s	---eAAABAA	70s	AAEEAAAAAA
039044	70s	--eAAAAAAA	80s	AAAAaee	041023	70s	fBBCBBBBBB	80s	BBEEEBI		80s	AAAAAA		
039046	70s	---eeeeeee	80s	III*FDe	041024	70s	-EAAAAABBA	80s	DAAAAAe	047008	60s	----------e	70s	AAAAAAAAAA
039049	70s	- EEEII:E	80s	ABCCCAe	041025	70s	EAAAADDDA	80s	DAAAADe		80s	AAAAAA		
039061	60s	--------eee	70s	AAAAAAAAAA	041026	70s	-EAAAAAAAA	80s	AAAAAAe	047009	60s	---------F	70s	AAAAAAAAAB
	80s	AAEAAAe			041027	70s	--eAAAAADD	80s	AAAAAAe		80s	AAAAAA		
039052	50s	--------eee	60s	bdaaaaaaa	041028	60s	---- eeeeee	70s	eAAAAAAAAD	047010	70s	-IEAAAAAAA	80s	AAAAE:
	70s	aaaaaaaaa	80s	AAAAAAe		80s	DADDDAe			047011	70s	-EAAAAAAAA	80s	AF
039053	60s	-aaaaaaaa	70s	aaaaaaaaa	041029	80s	---eeae			047013	70s	IDAAAAAA	80s	AAAAAA
	80s	AAAAAAe								047014	80s	-aaaaa		
039054	60s	eAAAAAAAA	70s	AAAAAAAAAA	042001	50s	fCCCCCCCC	60s	CCCCCCCCCC					
	80s	AAAAAAe				70s	CCCCIIBDAAA	80s	AEDAAA	048001	50s	---- eAA	60s	AAAAEAAEEE
039055	80s	e--ADI			042002	50s	----------I	60s	I*III*I*I*		70s	AAAAAAAAAA	80s	AAAAAA
039056	80s	ee f				70s	II- *II	80s	III	048002	60s	FcbAAABBA	70s	AAAAABFccc
039057	80s	ee			042003	60s	ICCCCCCCCC	70s	CCCCCCBAAA		80s	fcfcf		
039058	80s	ee--f				80s	DAAAAAe			048003	80s	-aaBAA		
039068	70s	eAAAAEIEA	80s	AAAAAAe	042004	50s	-------frC	60s	CCCCCCCCCC	048004	60s	---------=	70s	AAAAAAAAAE
039069	70s	--nAFIEAAA	80s	AAAAACe		70s	CCCCCCCCC	80s	FCCCFCI		80s	AAAAAA		
039071	70s	----------e	80s	eeeeee	042005	50s	--fCCCC	60s	CCCCCCCCCC	048005	60s	---------EA	70s	AAAAAAAAAA
039072	70s	e	80s	ee--ede		70s	CCCCCFCFFF	80s	FCCFF*		80s	AAAAAA		
039073	70s	----------e	80s	eaaaaee	042006	50s	---------IC	60s	CCCCCCCCCC	048006	60s	-- ------EA	70s	AAAAAAAAAA
039074	80s	eaaaaee				70s	CCCCCBAAAA	80s	AAAAAAe		80s	AAAAAB		
039075	80s	eaaaaee			042007	80s	-- --E	70s	BCCFIEAAAA	048007	60s	---------FA	70s	AAAAAAAAAA
039076	70s	------enee	80s	eaaeee		80s	ADAAAA				80s	AAAAAA		
039077	80s	eaaaaee			042008	70s	FCCCCBAAAD	80s	AAAAAAe	048009	70s	IEAAAAAAAA	80s	A***III
039078	70s	- -------ea	80s	aaaaaee	042009	70s	fccccbaaad	80s	AAAAAAe	048010	50s	----- H	60s	----------'
039079	80s	-----e			042010	50s	------ *c'	60s	ccccccccc		70s	cCBAAAAAAA	80s	AAAAAA
039081	70s	------:---e	80s	eaaAAAe		70s	ccCCCB:etrC	80s	CCCCcB	048011	70s	- eAAAAAAA	80s	AAAAAA
039085	30s	-------eeee	40s	aae--------	042011	70s	--fccbaaaa	80s	AAAAAAe					
	50s	----eAAAA	60s	e	042012	70s	---**BBBBC	80s	CCCCCCf	049001	60s	----eAAAAA	70s	AAAAAAAAAA
039086	70s	eaaae	80s	aaaeAAe	042013	80s	-H--ee				80s	AAAAAA		
039087	70s	-----neeeee	80s	aAAAAAe	042014	70s	-------ede-	80s	-eeeaae	049002	50s	--------EF*	60s	I***III*EA
039088	70s	----eaaAAA	80s	AAAAABe	042016	70s	-----:fcHH	80s	clc'		70s	AAAAAAAAAA	80s	AAAAAA
039089	80s	----eee			042019	70s	--------nee	80s	-- --ee	049003	60s	--------eEA	70s	ABEEEAAAAA
039090	80s	-----e			042021	70s	----------I	80s	lee		80s	AAAAAA		
039091	80s	- -ee								049004	60s	-- --E	70s	AAAAAAAAAA
039093	80s	H			043001	60s	eAAAAE***I	70s	I****I*III		80s	AAAAAB		
039094	80s	H			043003	60s	---eAEAAAA	70s	AAAAAABAAA					
039095	80s	H--I				80s	ABAaee			050001	50s	- - -eA	80s	AAAAAAAAAA
039098	80s	H			043004	60s	-----EAEAA	70s	AAADAEAAAA		70s	AAAAAAAAAA	80s	AAAAAA
039097	80s	----fcI				80s	BFEFEB			050002	60s	--eAAAAAAA	70s	BAAAAAAAAA
					043005	60s	-----EAAAA	70s	AAAAAAAAAA		80s	AAAAAA		
040001	50s	---EAAAAAA	80s	AAAAAAAE*1		80s	AAAAAA			050003	60s	--------III	70s	1----I***I*
	70s	I*:III*III	80s	*II	043006	60s	------AAAA	70s	AAAAAAAAAA		80s	ce-*II		
040002	50s	-------aAAA	60s	AAAAAAAAEA		80s	AAAAAA			050004	60s	------eEIII	70s	IIIIIII***
	70s	BBAAAe-*II	80s	***	043007	70s	--:AAAAAAA	80s	AAAAAA		80s	--:***		

Stn. number	Gauged daily flows, monthly peaks and rainfall			
051001	60s	--------AAA	70s	AAAAAAAAAA
	80s	AAAEee		
051002	70s	---eeeeeee	80s	----e
052001	50s	------eeee	60s	eeeeebAAEt
	70s	tttt---ttt		
052002	50s	------eAAA	60s	AAAAAAAAe-
	70s	--------ttt		
052003	60s	-eAAAAAAAA	70s	AAAAAAAAAA
	80s	AEAAAA		
052004	50s	--eAAAAAAA	70s	AAAAAAAAAA
	80s	AAAAAE		
052005	50s	-EAAAAAAAA	70s	AAAAAAAAAA
	80s	AAAAAA		
052006	60s	---eAAAAAA	70s	AAAAAAAAAA
	80s	AAAAAA		
052007	60s	------eAAA	70s	AAAAABAAAA
	80s	AAAAAA		
052008	80s	eAAAAAAAEt	70s	tttt-::::::
052009	60s	----AAAAAA	70s	AAAAAAAAAA
	80s	ABBAAE		
052010	60s	----eAAAAA	70s	AAAAAAAAAA
	80s	AAAAAA		
052011	60s	-----eAAAA	70s	AABAAAAAAA
	80s	AAAADA		
052014	60s	------:EAA	70s	BAAAEEEEE:
	80s	tEEeee		
052015	70s	-EAAAAAAAE	80s	-----e
052018	70s	tEAAAAAAAA	80s	AAAAeb
052017	70s	---EEE::::		
052020	60s	------fcoc	70s	cccFEAAAA:
053001	50s	---eAAAAAA	80s	AAAAAAAAAA
	70s	AAAAAAAAAA	80s	Et
053002	50s	---eAAAAAA	60s	AAAAAAAAAA
	70s	AAAAAAAAAA	80s	AAAeee
053003	40s	-cccccc-c	50s	cccbAAAAAA
	60s	AAAAAAAAAF	70s	ttt::::::::
	80s	tt		
053004	50s	--------EA	60s	AAAAAAAAEE
	70s	AAAAAAAAA	80s	AAAAAA
053005	60s	-EAAAAAAAA	70s	AAAAAAAAAA
	80s	AAAAAA		
053006	60s	-eAAAAAAAA	70s	AAAAAAAAAA
	80s	AAAAAA		
053007	60s	-eAABAAAAA	70s	AAAAAAAAAA
	80s	AAAAAA		
053008	60s	----BAAAAA	70s	AAAAAAAAAA
	80s	AAAAAA		
053009	60s	------AAAA	70s	AAAAAAAAAA
	80s	AAAAAA		
053013	70s	eAAAAAAAAA	80s	AAAAAA
053014	70s	----e		
053015	70s	---eeeee		
053016	70s	---eeeeeee		
053017	70s	---EAAAAAA	80s	AAAAAA
053018	60s	---------e	70s	AAAAAAAAAA
	80s	AAAAAA		
053019	60s	---------e	70s	eeeeeeeee
	80s	AAAAee		
053020	60s	---------ee	70s	eeeeeeeee
	80s	AAAeee		
053022	70s	------eAAA	80s	AAAAE:
053023	70s	------eeee	80s	eAAAAA
053024	70s	---------ee	80s	eAAAAA
053025	80s	eAAAAA		
053026	70s	---------ee	80s	eAAAAA
053028	80s	--eeee		
054001	20s	-FCCCCCCCC	30s	CCCCCCCCFC
	40s	CCCCCCCCCC	50s	CCCCCCCCCC
	60s	CCCCCCCCCC	70s	CCAAAABAAA
	80s	AAAAAAf		
054002	30s	------fbAA	40s	AAAAAAAABC
	50s	CCCCBAAAAA	60s	AAAAAAAAAA
	70s	BCBABABAAA	80s	AAAAAA
054003	20s	cccccccfcc	30s	ccefcccbAA
	40s	EAAAAAAAAA	50s	AAAAAABAAA
	60s	AABBBAAAAA	70s	BCCCCCCAAE
	80s	AAAAAA		
054004	50s	--fCBAAAAA	60s	AAAAAAAAAA
	70s	BEEEBAAAAE	80s	AAAAEA
054005	50s	---fCBAAAA	60s	AAAAAAAAAA
	70s	ABBAAABAAA	80s	AAAAAA
054008	50s	---fBAAAAA	60s	AAAAAAAAAA
	70s	BCBAAABBAB	80s	AAAAAA
054007	50s	--------eAA	60s	AAAAAAAAAA
	70s	BCEEEBBAAA	80s	AAAAE1
054008	50s	------eAAA	60s	AAAAAAAABB
	70s	CCAAAAAAAA	80s	AAAAAA
054010	50s	----------e	60s	AAAAAAAAAA
	70s	BCbAAAAADD	80s	AAEE:1
054011	60s	-eAAAAAAAB	70s	CCBABBABAB
	80s	AAAAE1		
054012	60s	eDAAAAAAAB	70s	ABAAABBAAA
	80s	AAAAAA		
054013	50s	----------a	60s	AAAAAAAABA
	70s	AABABBBAAE	80s	***11
054014	60s	f-fbAAAAAB	70s	BAAAAAAAAA
	80s	AAAAAA		
054015	80s	----------E	70s	EEEEEEAAAA
	80s	AeAA::		
054016	60s	-eAAAAAAAA	70s	BAAAAAAAAA
	80s	AAAAAA		
054017	60s	--eAAAAAAA	70s	BBAAAAAAAA
	80s	AAAA::		
054018	80s	--eeAAAAAA	70s	AAAAAAAAEA
	80s	AAAAE1		
054019	80s	--eAAAAAAA	70s	AAAAAAAAAA
	80s	AAAAAA		
054020	60s	---eAAAAAB	70s	AAAAAAAAAA
	80s	AAAAAA		
054021	70s	-----*****	80s	1111
054022	50s	---eAEAAe-	60s	--------'EB
	70s	AEAAADAEAA	80s	AAAAAA
054023	60s	--------dA	70s	AAAD::AAAA
	80s	AAAA::		
054024	60s	ttt::::::D	70s	AAAAAAAAAA
	80s	AAAAAA		
054025	60s	----------E	70s	ABAAAAAAAA
	80s	AADAAA		
054026	60s	----------F	70s	tDAADAAAAA
	80s	AADA::		
054027	80s	----------d	70s	eAAAAAAAAA
	80s	AAAAE:		
054028	60s	- -------t	70s	FBBAAAAAAA
	80s	AAAAAA		
054029	70s	FBAAAAAAAA	80s	AAAAAA
054032	70s	FAAAAAAAAA	80s	AAAAAA
054033	70s	- :::	80s	::::
054034	70s	-DAAAAAAAA	80s	AAAA::
054036	70s	-tDAAAAAAA	80s	AAAAE1
054038	70s	--tDAAAAAA	80s	AAAAEA
054040	70s	---FAAAAAA	80s	AAAAAA
054041	70s	-FCCCCCCC	80s	CCCCCA
054042	70s	tEAEAAEE::		
054043	50s	--- fcccc	60s	ccccfcccc
	70s	Ft------:::		
054044	70s	-tDAAAAAAA	80s	AAAAAA
054045	70s	- tDAAAAD		
054046	70s	-----fccc	80s	cCCCF1
054047	70s	faad-	80s	-1:::
054048	70s	------daaa	80s	aAAADt
054049	70s	---------f	80s	aaaaa
054053	70s	-tEAAAD---	80s	---:::
054054	70s	--DAAAD---	80s	---:::
054055	70s	- dadad cc	80s	cce
054056	70s	--FDDDD		
054057	70s	-fcccbbaaa	80s	aaaaa
054058	70s	-aaaaadd		
054059	70s	--daaaaDDC	80s	cccff
054060	70s	aaaaaad	80s	cfcff
054061	70s	--aaadad		
054065	70s	---EAABEAE		
054067	70s	----aaaad		
054068	70s	- -aaa		
054069	70s	----aaaaa		
054080	70s	--------fad	80s	aaad
054081	70s	-------tBA	80s	AAAAA
054083	70s	-:- --aa	80s	aaaa
054084	70s	---------aa	80s	aaaa
054085	70s	---- ------a	80s	aaaa
054086	70s	----------a	80s	baaaa
054087	80s	aaaa		
054088	70s	---------aa	80s	aaaaa
054090	70s	---adaddaa	80s	aaaaa
054091	70s	----adaa	80s	aaaaa
054092	70s	---adaaaaa	80s	aaaaa
054094	70s	-H		
054111	70s	----ccbaaa	80s	aaaa
055001	30s	------fBAA	40s	AABAAAAAAA
	50s	AAAAAAAAAA	60s	AAAAAAAAAA
	70s	Ae------:::		
055002	30s	-----aaeAA	40s	AAAAAAAAAA
	50s	AAAAAAAAAA	60s	AAAEAAAAAA
	70s	CCCBAAAAAA	80s	AAACCC
055003	30s	----------a	40s	AAAAAAAAAA
	50s	AAAAAAAAAA	60s	AAAAAAAAAA
	70s	AAAABAAAAA	80s	AE1
055004	30s	-- aAA	40s	AAAAAAAAAA
	50s	AAAAAAAAAA	60s	AAAEAAAAAA
	70s	AAAAAAAAAA	80s	EEF:::
055005	30s	--------aBA	40s	AAAAAAAAAA
	50s	AAAAAAAAAA	60s	AAAEAAAAAA
	70s	- :::		
055006	00s	---------cc	10s	ccccccccCC
	20s	CCCCCCCCCC	30s	CCCCCBAAAA
	40s	AAAAAAAAAA	50s	AAAAAAAAAA
	60s	AAAAAAAAAA	70s	AAAAAAABCC
	80s	cCCFC1		
055007	30s	-------aAA	40s	AAAAAAAAAA
	50s	AAAAAAAAAA	60s	AAAEAAAAAA
	70s	CCCCCCCCCC	80s	CAACCC
055008	50s	-aAAAAEEaA	60s	AAAEAAAEEA
	70s	AAAAADAAAA	80s	AAAAAA
055009	40s	---------aA	50s	AAAAAAAAAA
	60s	AAAEAAAAAA	70s	AAE:::::11
055010	50s	-----eAAAA	60s	AAAEAAAAAA
	70s	AAAAAAAEAA	80s	EFF:::
055011	50s	----------a	60s	AAAAAAAAAA
	70s	AAAAAABAAA	80s	ABF111
055012	60s	- -aAAA	70s	AAAAAAAEEA
	80s	AAAAAA		
055013	60s	--- -aAAA	70s	AAAAAAAAAA
	80s	AAAAAA		
055014	60s	------aAAA	70s	AAAAAAAAAA
	80s	AAAAAA		
055015	60s	------aAAA	70s	AAAAAAAAEE
	80s	EAD111		
055016	60s	-- - ---aA	70s	EAEAAAAAAA
	80s	AAAAAA		
055017	60s	---------aA	70s	BAAEEAAAAA
	80s	AE		
055018	60s	---------aA	70s	AAAAAAAAAE
	80s	AAAAAA		
055019	70s	--eEE:::11		
055020	70s	--------1::		
055021	60s	-------:::E	70s	AAAAAAAAAA
	80s	AAE1FA		
055022	60s	--------f-a	70s	AAAABAAAAE
	80s	1FF1::		
055023	60s	---:::E	70s	CCCCCCCCCC
	80s	CAAAAA		
055025	60s	-- -:::::	70s	aAAAAAAAAA
	80s	AAAAAA		
055026	60s	-------:::a	70s	AAAAAAAAAA
	80s	AAAAAA		
055027	70s	-eAAAAAAE1	80s	:::
055028	70s	-eAAAAAAAE	80s	AAAAAA
055029	70s	--EAAAaaaa	80s	EAAAAA
055030	20s	-------fccc	30s	ccccccccfc
	40s	cccccccccc	50s	c----------
	60s	----------	70s	---::::
055031	70s	-:::EAAAAAA	80s	AAAAAA
055032	80s	-aaaaa		
055033	60s	----------c	70s	---edaedae
	80s	abaee		
055034	70s	---eeeeeee	80s	eeeee
055035	70s	---eeeeee	80s	aaaaa
056001	50s	--------EAA	60s	AAAAAAAAAA
	70s	AAAAAABAAA	80s	AAAAAA
056002	50s	--------eAA	60s	AAAAAAAAAE
	70s	AAAAABBBAA	80s	AAAAAA
056003	60s	---eAAAAAA	70s	AAAAABAAAA
	80s	AA1		
056004	60s	-----eAAAA	70s	AAAAAAAAAA
	80s	Ett		
056005	60s	-----teAAA	70s	AAAAAAAAAA
	80s	AAAAAA		
056006	60s	---eAAAAAA	70s	AAAAAAAAAA
	80s	AA1ttt		
056007	60s	-------:EAE	70s	FAAAAAAAAA
	80s	AAAAAA		
056008	70s	eeeAAEE:::	80s	tt
056010	60s	----------e	70s	eeeeeeeee
	80s	ee		
056011	70s	eeeAAAAAAA	80s	AA1
056012	70s	-AAAAAAABB	80s	AA1
056013	70s	--eAAAAAAA	80s	AAAAAA
056014	70s	----------e	80s	eed!
056015	70s	--:::EAAAE	80s	AA1t
056016	70s	----------e	80s	eaeeee
056017	70s	----------e		
056018	80s	ee		
057001	30s	------eeEB	40s	e- -----
	50s	--eeAABAAA	60s	AAAAAAAAEA
	70s	AAAA::::::	80s	::::
057002	30s	-eeeeeeAA	40s	AAAAAEAAAA
	50s	AADDAABAAA	60s	AAAAAAAAAA
	70s	ABAA::::::	80s	:::
057003	60s	-----eAAAA	70s	AAA::::::::
	80s	::::::		
057004	50s	--------eAA	60s	AEEAAAAAAA
	70s	AAAAAAAAAA	80s	AAAAAA
057005	70s	eAAAAAAAAA	80s	AAAAAA
057006	70s	eAAAAAAAAA	80s	EttFAA
057007	70s	--tEAAAAAA	80s	AAAAAA
057008	70s	--tAAAAAAA	80s	AAAAAA
057009	70s	-----eeeee	80s	eAAAAA
057010	70s	----eeeeee	80s	EAAAAA
057011	70s	------eeee	80s	e
057012	70s	------eeee	80s	e
057014	70s	----------e		
057015	70s	---------ee	80s	eBACCC
057016	70s	----------e	80s	eeeAAA
058001	60s	---eAAAAAA	70s	AAAAAAAAAA
	80s	AAAADA		
058002	70s	-----eeeeb	80s	EAADAA
058003	80s	--eAAE::::	70s	::::::::::
058005	70s	eAAAAAAAAA	80s	AAADFA
058006	70s	-EAAAAAAAA	80s	FAAAAA
058007	70s	eBAAAAAAAA	80s	EAAAAA
058008	70s	-FAAAAAAAA	80s	EDADAD
058009	70s	-EAAAAAAAA	80s	AAADAA
058010	70s	-----eeeee	80s	eE1t
058011	70s	-------eeee	80s	eAAAAA
059001	50s	--------eEA	60s	AAAAAAAAAA
	70s	AEAEEAAAAA	80s	DAAAAA
059002	60s	-------FFB	70s	AABBBAAAAA
	80s	ADAAAA		
060001	50s	---------eA	60s	AAAAAAAAAA
	70s	AAAAAAAAAA	80s	AE1
060002	60s	-eAAAAAE1	70s	BAAAAAAAEF
	80s	EAADAA		
060003	60s	-----EAAAA	70s	AEEAAAAAAA
	80s	AAAAAA		
060004	60s	--------'1E	70s	EEAAAAAAAA
	80s	AA1		
060005	60s	---------fa	70s	BAAAAAAAAA
	80s	AAAAAA		
060006	60s	---------FB	70s	BBBABAAAAA
	80s	AAAAAA		
060007	60s	---------fa	70s	AAAAAAAAAA
	80s	AAAAAA		
060008	80s	---faa		
060009	70s	FCCCCFF111	80s	::::11
060010	70s	----eeeee-	80s	eaaaaa
060012	70s	fAA888AEEA	80s	EE:
060013	70s	-EBCCCF111	80s	11
061001	60s	-----eAEAE	70s	EAAE::::::
	80s	::::::		
061002	60s	eAAAAAABBA	70s	AAEAAAAAAA
	80s	AAAAAF		
061003	60s	----------e	70s	AFAAAAAAAA
	80s	AAAAAA		
061004	70s	-eeeeeeeee	80s	eeeec'
062001	50s	----------E	60s	AAAAAAAAAA
	70s	EAAAAAAAAA	80s	AAAAAA
062002	70s	-eeeAAAEAE	80s	EE1
063001	60s	---eAAAAAA	70s	AAAAAAAAAA
	80s	EAAAAA		
063002	60s	-----eeEAA	70s	AAAAAAAAEE
	80s	AAAADt		
063003	70s	eeeeAAEAAE	80s	11
064001	60s	--tAAAAEAA	70s	AF::E11111
	80s	tDAAAA		
064002	60s	-----tAEEA	70s	EEDDDDDAAA
	80s	AAAAAA		
064003	60s	--------EtD	70s	EE::E***111
064006	60s	tccccccccc	70s	cBABAAAAAA
	80s	AAAAAA		
065001	80s	-eAABAABAE	70s	EEEEAADAAA
	80s	AAAAAA		
065002	80s	--------eee	70s	eEEEE:EE11
065004	70s	eEEEAAAAAA	80s	AAAAAA
065005	70s	--tAAAAAAA	80s	AAAAAA

Stn. number	Gauged daily flows, monthly peaks and rainfall				Stn number	Gauged daily flows, monthly peaks and rainfall				Stn number	Gauged daily flows, monthly peaks and rainfall			
065006	70s	------eaaa	80s	aAAAAA	069037	80s	-----f			077001	60s	---aAAEEAE	70s	EEEBAAAAA1
065007	70s	1EAAAA	80s	AAAAAA	069039	40s	----------e	50s	EAAEEDAAAe		80s	tAAAAt		
						60s	----------	70s	----eee	077002	60s	-1FCCBAAAA	70s	AAAAAAAAAA
066001	50s	----------e	60s	AAAAAAAAAA	069040	80s	---ee				80s	AAAAAD		
	70s	AAAAAAACCF	80s	C1111						077003	70s	---DAAAAAA	80s	AAAAAD
066002	60s	-eABAAAAAC	70s	BAAAE1111:	070001	50s	-eAAAAAABA	60s	AAABCBAABB	077004	70s	----------d	80s	eAAAAD
066003	60s	---eAE:EA1	70s	:111EEEEEEE		70s	FBAE**111	80s	1111	077005	70s	--------e--	80s	---ee
	80s	AAD:11			070002	80s	BAABAA							
066004	70s	aAAAAAA:*1	80s	*11	070003	70s	--------e--	80s	---ee	078001	50s	---------eA	60s	AE*11------
066005	70s	-EAEAAA11*	80s	*1	070004	70s	------AAAA	80s	AAAAAA		70s	11***1		
066006	70s	EAAAAAA	80s	AAAAAA	070005	70s	-------e-	80s	-aaaa	078002	60s	---eAE1111	70s	*1111**
066008	70s	--------aaa	80s	bbaaad						078003	60s	-***111DAA	70s	AAAAAAAAAA
066011	60s	----eEEEEA	70s	AAEAAAAAAA	071001	60s	ICCCbAAAAA	70s	BCB88AAAAA		80s	AAAAAA		
	80s	AAAAAA				80s	AAAAAA			078004	60s	-:*EBEEAAA	70s	AAAAAAAAAA
					071002	30s	-- ----ee--	40s	----------		80s	AAAAAA		
067001	50s	--------aAA	60s	AAAAAAAAAA		50s	----------	80s	---eeAAAAA	078005	70s	----------e	80s	aAAAAD
	70s	AAAAAAAAAA	80s	AAACCC		70s	AAAbE11BBB	80s	B111	078006	80s	---fcf		
067002	30s	---- - aAA	40s	AAAAAAAAAA	071003	50s	--------aAA	60s	AAAAAAAAAA					
	50s	AAAAAAAAAA	60s	AAAAAAAAAA		70s	AAAaE1-*11			079001	60s	-1111EBBFF	70s	FFCCCFCCcc
	70s	A1:111-111			071004	60s	---aAAAAAA	70s	AE11AEAAAA		80s	cf		
067003	20s	--aAAAAAA	30s	AAAAAAAAAA		80s	AAAAAA			079002	50s	--------aAA	60s	AAAAAAAAAA
	40s	AAAAAAAAAA	50s	AAAAAAAAAA	071005	60s	eAAAAAAAAA	70s	AABbE1-111		70s	AAAAAAAAAA	80s	AAAAAA
	60s	AAABBAAAAA	70s	AAAAABCAAA	071006	60s	---------FC	70s	CFCCAAFAAA	079003	50s	----------e	60s	AAAAAAAAAA
	80s	AAA:FA				80s	DAAAAA				70s	AAAAAAAAAA	80s	AAAAAD
067004	30s	----aAAe-	40s	----------	071007	80s	1111			079004	60s	-11FCBAAAA	70s	AAAAAAAAAA
	50s	---- eAE11	60s	1111111111	071008	70s	-------ee-	80s	1AAAAA		80s	AAAAAD		
	70s	11:EABBAAA	80s	BAA111	071010	70s	-fccccfAA*	80s	1AAAAA	079005	60s	-11EAAAAAA	70s	AAAAAAAAAA
067005	50s	---11*LAAA	60s	AAAAAAAAAA	071011	60s	- ----FFFC	70s	CCFF1:1EAE		80s	AAAAAD		
	70s	AAAAAAA:11	80s	111		80s	FAAAA1			079006	60s	-1111:EAA	70s	AAAAAAAAAA
067006	60s	aAAAAAAAAA	70s	BAAAAAAAAA	071013	80s	aaaaa				80s	AAAAAA		
	80s	AAAAAA			071014	70s	-------aaa	80s	-eaaaa					
067007	60s	----EAAAAF	70s	11*111*11*						080001	60s	-11EAAAAAA	70s	AAAAAAAAAA
067008	60s	-----EBAAA	70s	AAAAAAAAAA	072001	50s	----------c	80s	cCCCCCCBCC		80s	AAAAAA		
	80s	AAAAAA				70s	CAAAAAB1**			080002	70s	--------daa	80s	aAAAAA
067009	60s	---- EF*FB	70s	B888EBEBAB	072002	60s	- aAAAAAA	70s	AAABCCAAAE					
	80s	B1DDDD				80s	AAAAAA			081001	60s	-----e88e-	70s	--------**1
067010	60s	------EAAA	70s	AAAAAA1:11	072004	50s	----------C	60s	cCCCCCCC88	081002	60s	-11EAAAAAA	70s	AAAAAAAAAA
	80s	1*				70s	CCCCCCB111	80s	-aaAA1		80s	AAAAAA		
067011	60s	--------ccc	70s	cc*fcccc*f	072005	60s	----------F	70s	CCCCCCFAA1	081003	60s	-111111AAA	70s	AAAAAAAAAA
	80s	ff				80s	1AAAAf				80s	AAAAAA		
067012	60s	EE1	70s	111111-111	072006	60s	- ----11	70s	1111111111	081004	70s	--------daa	80s	aAAAAA
067013	60s	--------EDF	70s	AAAAAaa:11		80s	1111			081005	80s	-----f		
067015	30s	--------1cc	40s	cccccccccc	072007	80s	-----e							
	50s	cccccccccc	60s	cccccccccc	072008	60s	- ---ME	70s	EABCCCAAAA	082001	60s	-11EAAAAAA	70s	AAAAAAAAAA
	70s	BAAAAAAAAA	80s	AAAAAA		80s	AAAAAA				80s	AAAAAA		
067016	60s	---- ---EAE	70s	1111E1:1111	072009	70s	111111-111	80s	:AAAA1	082002	70s	---1EAAAAA	80s	AAAAAA
	80s	11			072010	80s	11			082003	70s	---AAAEaa	80s	AAAAAA
067017	60s	---------*B	70s	AAAAAAAAAA	072011	60s	---------1c	70s	f-------eee					
	80s	AAAAAA				80s	1AAEE1			083001	60s	----11***--	70s	fFFFFFM
067018	60s	---------*E	70s	AAAAAAAAAA							80s	*f		
	80s	AAAAAA			073001	70s	fccccc1*			083002	60s	---eaaaaa	70s	aaaaaaa
067023	70s	---FCF1*11	80s	1**1	073002	60s	---FAAAADA	70s	BABCAAAAAA	083003	80s	-1****11*1	70s	FAAAAAAAAA
067025	70s	------aaaa	80s	aAAAE1		80s	AAAAA*				80s	AAAAAA		
067028	70s	aa	80s	ee	073003	80s	-aaaa			083004	70s	-:EAAAAAAA	80s	AAAAAA
067029	70s	--------eee	80s	ee:3dld	073005	60s	---------LB	70s	BBABAACAAA	083005	70s	--EAAAAAAA	80s	AAAAAA
						80s	AAAAAA			083006	70s	------edaa	80s	aaaaaa
068001	30s	--------aAA	40s	AABCBAAAAA	073007	80s	11:*			083007	70s	--------aaa	80s	aaaaaa
	50s	AAAAAAAAAA	60s	AAAAAAAAEAE	073008	60s	----------E	70s	AAE*AAA111	083009	70s	---------ee	80s	aaaaaa
	70s	AAAAAEAAA1	80s	EAAAAA		80s	tAAAAA			083010	70s	--------eee	80s	aaaaaa
068002	40s	---------e	50s	AAAAAAAAAA	073009	70s	11111--111	80s	1AAAA1					
	60s	AAAAAAAEAA	70s	AAAAAAE111	073010	30s	-------C	40s	CCCCCCCCCC	084001	40s	---------eE	50s	EEEBBBBEEB
	80s	11				50s	CCCCBCCCCC	60s	CCCCcCCCCC		60s	AAAAAAAAAA	70s	AAAAAAAAAA
068003	40s	---------e	50s	AAAAAAAAAA		70s	CBBBCCCCAAA	80s	AAAAAA		80s	AAAAAA		
	60s	AAAAAAAEAA	70s	AAAAAE1111	073011	70s	FCCCCC1A11	80s	1AAAA1	084002	50s	--eA1EAEEE	60s	AAEEAEEEFC
	80s	1DAAAA			073013	80s	11111 f				70s	AAFEFFE-11	80s	11 111
068004	50s	-------eAA	60s	AAAAAAADAA	073014	80s	1111			084003	50s	------eBDA	60s	AAAAAAAAAA
	70s	AAAAAEAA:1	80s	1AAAAA	073015	70s	1111111111	80s	11		70s	AAAAAAAAAA	80s	AAAAAA
068005	50s	---eAAAAAA	60s	AAAAAAAEAA						084004	50s	-------eAA	60s	AAAAAAAAAA
	70s	AAAAACEEAA	80s	AAAAAA	074001	60s	--------EC	70s	CCBCCCBAAA		70s	AAAAAAAAAA	80s	AAAAAA
068006	50s	eAAAAAA	60s	AAAAAAAEEA		80s	AAAAA1			084005	50s	--------eA	60s	AAAAAAAAAA
	70s	AAAAAEE1**	80s	*EEAA*	074002	60s	--------eBB	70s	AAAAABBAAA		70s	AAAAAAAAAA	80s	AAAAAA
068007	60s	--eAAAAAAA	70s	AAAAAEAACA		80s	AAAAAA			084006	60s	-**EAAAAAA	70s	AAAAAAAEAA
	80s	AAEEA*			074003	70s	eEAAAAA	80s	AAAAA*		80s	AAAE*1		
068010	70s	---111*11:	80s	*1	074005	70s	---1BAAAAA	80s	AAAAAA	084007	60s	-----eAAA	70s	AAAAAAABBA
068011	70s	---1111111	80s	*111	074006	60s	----fccfcc	70s	ccI-BBBAAA		80s	AAAAAA		
068015	90s	aaaaa				80s	AAEAA1			084008	60s	------eAAA	70s	AAAAAAAAAA
068018	70s	--------1			074007	70s	-----11E11	80s	1EFAA1		80s	AAAAAA		
068019	80s	111**1			074008	70s	--------ee-	80s	-eeee	084009	60s	------eAAA	70s	AAAAAAAAAA
068020	80s	CCAAA									80s	AAAE11		
					075001	30s	-1111EAE11	40s	1111:EAAAA	084011	60s	---eAAAAAA	70s	AAAAAAAAAA
069001	30s	eba688	40s	8888888888		50s	AAAAAAAAAA	60s	AAABAAAAEE		80s	AAAAAA		
	50s	AAAAAAAABA	60s	BAAAAAABEA		70s	E1:AAAEAAA	80s	AAAAA1	084012	60s	-11EAAAAAA	70s	AAAAAAAAAA
	70s	AAABABAAA:	80s	1AAAe	075002	60s	fcBCB8888A	70s	AAAAAAAAAA		80s	AAAAAA		
069002	40s	----------e	50s	AAAAAAAAAA		80s	AAAAAA			084013	60s	---eeeeAAA	70s	AAAAAAeAAe
	60s	AAAAAAAEAA	70s	AAEEA1AAAA	075003	60s	---------eA	70s	BAABAABAAA		80s	AAAAAA		
	80s	AAAAAA				80s	AAAAAA			084014	60s	----eAAAAA	70s	AAAAAAAAAA
069003	30s	-------eE:	40s	1111111111E	075004	60s	--------fBA	70s	BBABAACAAA		80s	AAAAAA		
	50s	AAAAAAAAAA	60s	AAAAAAAEAA		80s	aaaAAf			084015	60s	e111*EAAAA	70s	AAAAAAAEAA
	70s	AAAFF1AFAE	80s	AAAAAA	075005	70s	--AAABCAAA	80s	AAAEAA		80s	AAAAAA		
069004	40s	-----eAAAA	50s	AAAAAAAAAA	075006	60s	---eA	70s	AAAAAAAAAA	084016	60s	-11111EEDA	70s	AAAAABBAAA
	60s	AAAAAAAAF1	70s	BBCCCCCCCC		80s	a				80s	AAAAAA		
	80s	CC11			075007	60s	----------e	70s	AAAAAAAAA1	084017	60s	-------EAA	70s	AAAAAAAAAA
069005	50s	----nAEAAA	60s	AAAAAAAEAA	075009	70s	-eAAABBAAA	80s	ABAAA*		80s	AAAAAA		
	70s	AAAEAAFE1:A	80s	EAAE11	075010	70s	--eAAAAA1*			084018	60s	----------A	70s	AAAAAAAAAA
069006	50s	----eAAAA	60s	AAAAAAAAAA	075016	70s	-------AAA	80s	AAAEA*		80s	AAAAAA		
	70s	DAAEAEAAAA	80s	AAAAAA	075017	80s	--aAAA			084019	60s	---aaaeAA	70s	AAAAAAAAAA
069007	70s	-11111*11*	80s	1AAAAA							80s	AAAAAA		
069008	80s	1*11			076001	50s	--1EAAAE11	60s	EAAAAAAAAA	084020	60s	---------eE	70s	AAAAADAEAE
069011	80s	1*11				70s	F111111E1EA	80s	AEAAA1		80s	AAAAAA		
069012	80s	- --e			076002	60s	----11EBBA	70s	AABABBCAAE	084021	60s	----------f	70s	ccfff
069013	80s	--e-ee				80s	AEAAA1			084022	60s	------eeee	70s	eeeAAEAAEA
069015	70s	----- AFF	80s	AAAAAA	076003	60s	eAAAAAAEA	70s	AAAAAAAAAA		80s	AAAAAA		
069017	70s	-- ----ee-	80s	1AAAAA		80s	AFEAA1			084023	70s	---EAAAAEA	80s	AAAAAA
069018	60s	--------f	70s	1111111-11	076004	60s	--eAAAADAA	70s	AEAEAAA1AA	084024	70s	--eeAAAAAE	80s	AAEAAA
	80s	11				80s	1AAAA1			084025	70s	---11AAAAE	80s	AAAAAA
069020	70s	----- aaaa	80s	AAAAAA	076005	60s	----eAABBB	70s	AAAABBBAAA	084026	70s	----eeebee	80s	eeeeee
069021	60s	1111111	70s	11111*1111		80s	AAAAAA			084027	70s	---fl--de-	80s	e
	80s	1*11			076007	60s	--------eeA	70s	AAAAAAAA11	084028	70s	-----eeeee	80s	abaaaa
069023	70s	---------ee	80s	1AAAAA		80s	1AAAAA			084029	70s	-----eeeee	80s	eeeeee
069024	80s	1AAAAA			076008	60s	--------eAA	70s	EAAAAEE1A:	084030	80s	eeeee		
069027	70s	---------d-	80s	1AAAAA		80s	*AAAA1							
069030	70s	--- --e-AA	80s	AAAAAA	076009	60s	- -------eE	70s	BAAAAAE11*	085001	60s	---eAAAAAA	70s	AAAAAAAAAA
069031	80s	-eeee				80s	:EEAAA				80s	AAAAAA		
069032	70s	---- ---A	80s	AAAAAA	076010	70s	EAAAAAE***	80s	*AAAA1	085002	60s	-*1EAAAAAA	70s	AAAAAAAAAA
069033	50s	----neAAee	60s	e----------	076011	60s	--------ccc	70s	cc1fcc:ccc		80s	AAAAAE		
	70s	ee				80s	cccc			085003	60s	-1**11111	70s	EAAAAEAAE1
069034	80s	----e			076014	70s	-EAAAAAA11	80s	*AAAE1		80s	AAAAAA		
069035	70s	---AEA	80s	*AAAA1	076015	70s	EAABAABAAA	80s	AAAAA1	085004	70s	------eeee	80s	eeee-e
069036	70s	--:1*11111	80s	:111										

Stn. number	Gauged daily flows. monthly peaks and rainfall			
086001	60s	---------eA	70s	AAAAAA8888
	80s	AAAAAB		
086002	60s	-111111EE	70s	AAAAA88AAA
	80s	AAAAAA		
090001	60s	----11-1--	70s	-11111
090002	70s	---------ees	80s	ee
090003	80s	--eeee		
091001	60s	----1111--	70s	-11111
091002	80s	eAAAAA		
091003	50s	----111111	60s	11
093001	70s	----------e	80s	eAAAAA
094001	60s	-1111111111	70s	EAAAAAAAee
	80s	AAAAAA		
095001	70s	--------eAA	80s	AAAAAA

Stn number	Gauged daily flows. monthly peaks and rainfall			
096001	70s	-------AAAA	80s	AAAAAA
096002	70s	--------eee	80s	eAAAAA
097001	50s	--------1·	50s	----1111--
	70s	-111111---	80s	11 111
097002	60s	-1111111111	70s	11AAAAAAAA
	80s	AAAAAA		
101001	60s	-1cfFFcfFF	70s	FcCCfcC111
	80s	111111		
101002	50s	-------1111	60s	11111EeeE1
	70s	EEEEBEEFFE	80s	FBFABA
201002	80s	- 111		
201005	70s	-1FCCCCCCC	80s	CCAAAA
201006	70s	-- ---e---	80s	-111
201007	70s	111111CFCC	80s	CAAAAA
201008	80s	---111		

Stn number	Gauged daily flows. monthly peaks and rainfall			
203010	60s	-111111111	70s	FCCCCCCCCC
	80s	CAAAAA		
203011	80s	--111		
203012	80s	---111		
203017	70s	eeeeeeeccc	80s	c--1-1
203018	70s	-------e---	80s	---111
203020	80s	---111		
203021	70s	-----e---	80s	---111
203025	80s	---111		
203027	70s	1FCCCBCCC	80s	CAAF11
203028	70s	-11CCEBCCC	80s	C11FF1
203033	80s	-ee1!!		
204001	80s	-FF1		
205003	70s	-ccceeeee		
205004	70s	---------cc	80s	c--FF1
205005	70s	--EACCFFCC	80s	CAAAAA
205008	80s	---111		

Produced 17th March 1987. New summaries available on request

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	–

Summary is presented in decade blocks

Stn number	Naturalised daily and monthly flows			
006007	70s ---EEEFEEF			
007003	60s ---- FEEEE		70s EEEEEEEEEE	
	80s F			
008001	30s ---- --FE		40s FFEEEEEEEF	
	50s EEEEEEFEEE		60s FEEEEF	
008005	70s F E			
012002	70s --FF-- --		80s F	
012004	70s -------FEE		80s F	
013007	70s --- --EEEE		80s EEEEEE	
014001	70s -----F--E			
014002	70s ----E--F			
015003	70s ---EEEEEEE		80s EEEEEE	
015006	60s ------ FEE		70s F--EEEEEEE	
	80s EEEEEE			
015007	70s - EEEEEEE		80s EEEEEE	
015008	70s ---FEEEEEE		80s EEEEEE	
015010	70s ---EEFFFEE		80s EFFFFE	
015011	70s -EEEEEEE		80s EEEEEF	
015012	70s ---FEEEEEE		80s EEEEEE	
015013	70s ---EFFFFEE		80s EFFFEE	
015016	70s -EEEEEE		80s EEEEEE	
015017	70s ---- --F			
015024	80s --EEEE			
016001	60s ---FFFFEEE		70s FFEEEEEEEE	
	80s EEEEEE			
016004	70s ---- EEEEE		80s E	
017001	60s -----F		70s EF----E	
017002	60s ------- F		70s FF- --E	
017003	70s -----E			
017004	70s ---- E			
017005	70s ------F			
018001	70s ------F			
018002	60s ---FEEEE		70s F-----F	
018003	60s ----FEEEEE		70s FF -E	
018005	70s ------E			
018008	70s --- --E			
019001	50s -----EEF		60s EEEEEEFFFE	
	70s EFFFFEE			
019002	60s --EEEEFFFE		70s EEF-FEE	
019003	60s FEEEEEEE		70s EEEEEE	
019004	60s EEEFFFEEEE		70s EEE EEE	
019005	60s --FEEEFFF		70s EEEEFE	
019006	80s -- EEEEEE		70s EEEEEE	
019007	60s --FFFFFEEE		70s EEEEEE	
019008	60s ----FEEEFE		70s EEEFFFF	
019009	80s -- EEEEEE		70s EEFFEE	
019010	60s ------ --E		70s FFEEEEE	
019011	70s ------F			
020001	60s -EEFFFFEEE		70s FEEEEEE	
020002	60s ---------FF		70s EEEEEEF	
020003	60s ---- EEEEE		70s EEEEEEE	
020004	60s -------FEE		70s EFFFEEE	
020005	70s ------E			
020006	70s ----- E			
020007	70s ------F			
021001	50s ----------F		60s EEEEFFEEF	
021002	50s - --------F		60s EEEEEEEEF	
021003	50s ----- F		60s EFFFFEEEEE	
	70s EEEEEEEEEE		80s EF	
021004	60s --- FEEF			
021005	60s -FEEEEEEEF		70s EEEFEEFFFF	
	80s EF			
021006	80s -FFFFFFFFE		70s EEEEFFFFEE	
	80s F			
021009	60s -FEEEEEEE		70s EFFFEEEEEE	
	80s F			
021010	60s --- FEEEEEE		70s EF-FF-EE--	
	80s E			
021014	60s -FEEEEEEEF		70s EEEEEEEEFF	
	80s F			
021018	60s ---FE		70s EEEFEEEFFE	
	80s F			
021019	60s ---------FE		70s EEEEEEEFFE	
	80s F			
021021	60s -------- F		70s EFFFEEEFEE	
	80s F			
021022	60s ------F		70s EEEEEEEEEF	
	80s F			
021025	70s --FEEEEEFF		80s F	
023001	50s ------FEEE		80s 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 --------FFE		60s EEEFEBAACC	
	70s C			
025008	60s --- CAAB		70s BBEF	
026002	60s -----FFEEF		70s FFFF	
027001	30s --- --FF-		40s -FEEEF----	
	50s ---FFFEEEF		60s EEEFEFEF F	
	70s E			
027002	50s --FEEEE		60s EEEEEEEEEE	
	70s F			
027003	60s --FFFFFFFE		70s EF	
027004	60s FEEEEEEEF			
027005	40s --FEEEE		50s EEEEEFEEEE	
	60s FFFFFEEEEE		70s FF	
027008	60s -----FEEEE		70s FF	
027007	50s --------FE		60s EEEEEEEEEF	
	70s EF			
027009	60s ----- --F		70s FF	
027011	50s ---FEFFFFE		60s EEEFFFFEEE	
	70s EEEF			
027012	50s ---- FEEEEE		60s EFFEEEEEEE	
	70s EF			
027013	50s ---FEEEEE		60s EEEEEEEEFE	
	70s FF			
027015	60s -----CAAC			
027016	50s ---FEEE		60s EEEEEEEEFE	
	70s EF			
027017	50s ----FEEE		60s EEEEEEFFFF	
	70s EFFF			
027018	50s ------FFFE		60s EEEFFFFFEE	
	70s EEEF			
027019	50s -------FFEE		60s EFFEEEEEFF	
	70s FEF			
027020	50s ----- FFEF		60s FFEEEEEEFE	
	70s FEEF			
027021	60s FFFEEEFEEE		70s EF	
027022	60s ----FFFEEE		70s FF	
027023	60s -FEEEEE		70s EF	
027024	60s -FFFFF			
027025	60s -FEEEEEEEF		70s EF	
027026	60s - FEEEEEF			
027027	60s -FEEFFFFFE		70s EEFF	
027028	60s EEEEEEEEE		70s EF	
027029	60s -FEEEEFEEF			
027030	60s ----FFFFFF		70s EF	
027031	60s --EEEFFF		70s EF	
027032	60s ------ FFEF			
027039	60s --------FFE		70s EF	
028001	30s ------ FEE		40s F- ----F	
	50s EEEEEEEEEF		60s EEEEFBAAAA	
	70s AAAAACAA			
028002	40s -----FEEEE		50s FFFEEEEEEE	
	60s EEEEEBAACC		70s CC--CC	
030003	60s -----FF[1]			
031001	40s FEFFEF----		50s -- FEEEEEF	
	60s EEFEEBAACA		70s ABFFFFFFFE	
	80s CF			
031002	70s ---FFF			
031004	60s --------FF		70s FFFFF	
031006	70s FFFEEF			
031007	60s --------FF		70s FF--FF	
031009	70s - FFFF			
031010	70s -FEEEF			
031011	70s - FFF			
031012	70s ---FFF			
031013	70s ---FFF			
031015	70s -FFFFF			
031016	70s -FEEEF			
031017	70s -- FFF			
031018	70s ---FFF			
031019	70s -FFF			
031020	70s -FFFFF			
031021	70s -FFFFF			
031022	70s -FFF			
032001	40s FEFFFFFFFE		50s EEEFEFFFEE	
	60s EEEEEEEEEE		70s FEEEF	
032002	30s --- ---FF		40s EEEEEEEEEE	
	50s EFFEEF- -		60s -FFFFEEEEE	
	70s EEEEEF			
032003	70s FEEEEF			
032004	40s ---FEEEEEE		50s EFEEFEEEEE	
	60s EEEFFFEEEF		70s FEEEEF	
032006	60s ----------F		70s EEEEEF	
032007	60s ----------F		70s EEEEEF	
032008	40s --- FFEEE		50s EFEEEEEEEE	
	60s EEEFFFFFEF		70s EEEEEF	
032012	70s FFFFFF			
032018	70s -- FFF			
032019	70s ---FFF			
032020	70s FEEEFF			
032023	70s -F FFF			
032025	70s -FFFFF			
032026	70s -FFFFF			
033001	50s -FEEEEEF			
033002	60s FEEBAAAA		70s AAAAAAA	
033003	50s FF FEEEF			
033004	40s -----FFFEE		50s EFFFFEEF	
033005	50s --FEEFFFFF		60s EEEEEFFBAA	
	70s AC			
033006	50s ---- -FEEE		60s FFEEF	
033007	50s ---FFFFFEE		60s EEFFFECCCF	
	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 AAAAAC	
036004	60s -----CAAAA		70s AAAAAC	
036005	60s --CAAAAAAA		70s AAAAAC	
036006	60s -CAAAAAAA		70s AAAAAC	
036007	60s - --CAAAA		70s AAAAAC	
036008	60s CAAAAAAAAA		70s AAAAAC	
036009	60s -------- CC		70s AAAAAC	
036010	60s -------CA		70s AAAAAC	
036011	60s -- ---CA		70s AAAAAC	
036012	60s -------- CA		70s AAAAAC	
036015	70s CAAAC			
037001	50s CAAAAAAAAA		60s AAAAAAAAC	
	70s CAAC			
037002	30s --CAAAAAAA		40s ACCAAAAAAA	
	50s AAAAAAAAA		60s AAAAAAAAA	
	70s AAAAAAC			
037003	30s --CAAAAAAA		40s AAAAAAAAA	
	50s AAAAAAAAA		60s AC -CAAAAA	
	70s AAAAAAC			
037004	30s CAAAAAAA		40s AAAAACFF--	
	50s -F--FBEEEB		60s FBEEBAAAAC	
037005	50s ----------C		60s AAAAAAAAA	
	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	
037014	60s ---CAAAAAA		70s AAAAAC	
037016	60s --CAAAA		70s AAAACAC	
037017	60s ----- --C		70s AAAACAC	
037018	70s CAAAC			
037019	60s --CAAAC		70s AAAAC	
037020	70s CAAAAAC			
037021	70s CAAAAAC			
037022	70s CAAAAAC			
037023	70s -CAAC			
037024	70s -CAAAAC			
038001	30s --DAAAAAAA		40s AAAAAAAAAA	
	50s AAAAAAAAA		60s AAAAAAAAAA	
	70s AAAAAAC-CA		80s AAAADAD	
039001	80s ---AAAAAAA		90s AAAAAAAAAA	
	00s AAAAAAAAAA		10s AAAAAAAAAA	
	20s AAAAAAAAAA		30s AAAAAAAAAA	
	40s AAAAAAAAAA		50s AAAAAAAAAA	
	60s AAAAAAAAAA		70s AAAAAAAAAA	
	80s AAAAAA			
039002	30s - ----CA		40s AAAAAAAAAA	
	50s AAAAAAAAAA		60s AAAAAAAAAA	
	70s AAAAAAAAA		80s AAAAAAD	
039008	50s -CAAAAAAAA		60s AAAAAAAAAA	
	70s AAAAAAAAA		80s AAAAAAD	
039015	60s --- FBC			
040001	50s - -FEEEEF-		60s -FEEFEEF	
040002	50s ----- FFEF		60s FFFFFFEEF	
040003	50s - ----FFFF		60s EFFFFFFF	
040004	60s --FFEEEF			
040005	60s -----FFE			
040006	60s --- -FEF			
040007	60s FEEEEFFF			
040008	60s - ----FEE			
040009	60s -----FEE			
040010	60s -----FFE			
040011	80s -- -FEEF			
043003	60s -----FEFFF			
043005	60s - - -FEEEF		70s FF	
045003	60s --FEEEEEF			
045004	60s --------CA		70s C	
045005	60s ---FFFFFCA		70s C	
046002	60s FEEEEEEEF			
046003	60s --------CA		70s C	
047004	60s ----FBCEFF			
047005	60s -------C			
048001	60s ----FBACCC			
048002	60s ----FF---C			
048008	60s --------CC			

Stn. number	Naturalised daily and monthly flows			
048007	60s	-----CC		
049003	60s	----- -CCC		
050001	60s	------ ·A	70s	C
050002	60s	- FEFBBEBA	70s	C
051002	70s	---FEEEF		
052002	50s	------FEEF	60s	EEEEFBFEF
052005	60s	FEEFBEEEE	70s	EEEEEEEF
052006	60s	---FEEEEEE	70s	EEEEFFFF
052008	60s	FEEEEBFFF		
052014	60s	--------FEE	70s	FEEEFFFF
053004	50s	---------FE	80s	EEEEEEEEFF
	70s	FEEEEEEAAA	80s	A
054001	70s	-CAAAAAAAA	30s	AAAAAAAAAA
	40s	AAAAAAAAAA	50s	AAAAAAAAAA
	50s	AAAAAAAAAA	70s	AAAAAAA
054003	20s	EEEFFEEFEE	30s	AAAAAAAAAA
	40s	AAAAAAAAAA	50s	AAAAAAAAAA
	60s	AAAAAAAAAA	70s	AAAAAAAAAA
	80s	AAAAD		
054005	50s	--FEEE	60s	EEEEECBAAC
	70s	------AA		
054010	60s	-- --CC		
054013	60s	------CACA	70s	C-- AA
054014	80s	--- -CAA	70s	C-----AA
054017	60s	-------CC		
055001	30s	· -----FEE	40s	EEEEEEEEEE
	50s	EEEEEEEEEE	60s	EEEFFFFEEE
	70s	EF		
055002	30s	--------FEE	40s	EEEEEEEFFE
	50s	EEEEEEFFFF	60s	FFEFFEEEEE
	70s	AAAAAAAAAA	80s	AAD
055006	30s	---- FEFFF	40s	EFFEEEEEEE
	50s	EEFFFEEEEE	60s	EEEEEEEEEE
	70s	EEEEEEEF		
055007	30s	-- ----FE	40s	FEEEEEEEEE
	50s	FFEEEEEEEE	60s	EEEFFEEFFF
	70s	AAAAAAAAAA	80s	ADA
055023	60s	---------F	70s	AAAAAAAAAA
	80s	AAA		
056001	50s	--------FEE	80s	EEEEEEEEEF
	70s	FEEEEEFF		
056002	50s	--------FEE	60s	EEEEEEEEEF
	70s	EEEEEF		
056003	60s	- -FFF		
056004	60s	------FEEEE	70s	EEEEEFF
056006	60s	- FEFFFEE	70s	FFEEEEF
056011	70s	FFEEEEFF		

Stn. number	Naturalised daily and monthly flows			
058012	70s	-EEEEEF		
057001	50s	--FEEEEEEE	60s	EEEEFFEBC
057002	30s	- · ·---FEE	40s	EEEEEFEEEE
	50s	FEEEEFFEF-	60s	-FEEFFBAAA
	70s	C		
057003	60s	----CAAAC		
057004	50s	-------FEF	60s	EFFFEBAAAC
058001	60s	---FEF---C	70s	C
058003	80s	- FEEF		
059001	50s	---- --FE	60s	EFFFEBACC
060001	50s	----- FE	60s	EEFFFBAC
061002	60s	FEEEEBCC		
062001	50s	------	80s	EEEEEFFF
064001	60s	-----FF		
066002	60s	-FEEEEEEE-	70s	FFE
066003	80s	---FEF-FF		
068011	60s	---------CA	70s	AC
067001	50s	-------FEE	80s	EEEEEEEFEE
	70s	FEEE		
067002	50s	--FEEEEEE	80s	EEEEEEFFEF
067003	80s	------ FF	70s	EEFF
067004	50s	--FEF		
067006	60s	FEEEEEEEEF ·		
067007	80s	- -FFEEE		
067015	70s	FFEE		
067017	60s	---- ---E	70s	FF
068001	60s	-FEEEEEFEF	70s	-F
068003	40s	-------F	50s	EEEEEEEEEE
	60s	EEEEF----	70s	FF
068004	60s	-FEEFFEFF	70s	---FE
068005	60s	-FEEEEFEF	70s	---FE
068006	60s	-FEEFFEFF	70s	---E
069004	40s	-----FEEEE	50s	EEEFFFEEE
	60s	EEEEEFFF		
070001	50s	-FEEEEF ·	60s	-FFEEBAACC
	70s	CC		
071001	60s	-- --CC		
071002	60s	----FBAAAA	70s	AAAAC
072001	60s	--FEEEBAAA	70s	CCAC
075001	60s	---FEF		

Stn number	Naturalised daily and monthly flows			
075002	60s	-FEEEEF		
076001	50s	---FEEEF--	80s	FEEEEEFFFE
	70s	F		
076003	60s	FFFEEF		
076004	60s	--FEEF		
077002	60s	--------FEE	70s	EF
078004	70s	-F		
079002	50s	--------F	60s	EEEFFEEEEF
	70s	EF		
079003	50s	· -----F	60s	EEEEEEEEEE
	70s	FEF		
079006	60s	-- ---FEE	70s	FF
081003	60s	- ---FE	70s	FF
082001	60s	---FFEEFFE	70s	FF
084001	70s	FEEEF		
084002	60s	·-------FE	70s	EEFFF
084003	80s	---- FEFFF	70s	EEEEF
084004	50s	·-----FEE	60s	EEEEEEEEEF
	70s	FFEEF		
084005	50s	-----FE	60s	EEEEEEEEEF
	70s	EEEEEF		
084008	70s	FEEEF		
084007	60s	--------FEE	70s	FEEEF
084008	60s	-- -FFE	70s	FFEEF
084009	80s	--------FFF	70s	EEEEF
084011	80s	----FEEFFF	70s	FFFFF
084012	60s	·FFEEEEE	70s	EEEEF
084013	60s	-------·FEF	70s	EEEEF
084014	60s	- -FFEEEE	70s	EEEEF
084015	70s	FFEEF		
084016	70s	FEEEF		
084017	60s	------FEE	70s	EEEEF
084018	60s	---- ---F	70s	EFFFF
084019	60s	·-----FE	70s	EEFFF
084020	70s	FEEEF		
084022	70s	- FF		
084023	70s	---FF		
084024	70s	---FF		
085001	60s	---FEEEEEE	70s	EEEEF
085002	60s	-· --FEE	70s	FFEEF
085003	70s	FFEEF		
086001	70s	FFFFF		
086002	70s	FEEEF		
097002	70s	--EEEEEF		

Produced 17th March 1987. New summaries available on request

GROUNDWATER LEVEL MEASUREMENT

Background

Groundwater may be obtained from almost any stratum in the sedimentary succession in the British Isles, as well as from igneous and metamorphic rocks. In many, such as clays and shales, volcanics and metamorphics, the permeable zone may well be limited to the depth to which weathering may reach which is unlikely to be more than some 50 metres beneath the ground surface. In those strata which are not generally recognised to be aquifers, well-yields tend to be small (of the order of only a few cubic metres per day), uncertain as a continuous source (tending to fail in prolonged droughts), with an indifferent groundwater quality, and with the sources vulnerable to pollution.

The more generally recognised aquifers are listed in Table 9, with the Chalk and Upper Greensand, the Lincolnshire Limestone and the Permo-Triassic sandstones as the most important from the viewpoint of public supply. From such aquifers as these, yields of 3000 to 4500 cubic metres a day are not unusual. For the next category, including the Lower Greensand and the Magnesian Limestone, yields to individual wells of 1500 to 3000 cubic metres a day can generally be expected. In the other aquifers, while occasional sources sufficient for large supplies may be developed, they tend to be important only locally.

The groundwater resources of an aquifer are naturally replenished from rainfall. During the summer months, when the potential evapotranspiration is high and soil moisture deficits are appreciable, little infiltration takes place. There is a notable exception to this rule in the Eden valley of Cumbria where, enclosed between the massifs of Cross Fell and the Lake District, sufficiently heavy and continuous summer rainfall occurs to maintain infiltration through part at least of most summers. The normal recharge of an aquifer takes place during the winter months when the potential evapotranspiration is low and soil moisture deficits are negligible.

There are few artificial reservoirs in the United Kingdom which are sufficiently large to support demands through the driest summers, assuming that they were full at the start of the summer, without some continuous contributions from river intakes. Prolonged dry spells lead in many rivers to reduced flow, particularly where the natural groundwater contribution (baseflow) is limited. Consequently, while surface water droughts may be in part due to the failure of runoff from winter rainfall to fill the reservoirs, they are more frequently caused by a decrease in the summer flows of streams and rivers. Surface water droughts do, however, lead to increased consumption of groundwater (where available). By way of contrast, a groundwater drought is caused by a lack of winter rainfall. Potentially,the most serious droughts occur when, as in 1975/6, a dry summer succeeds a notably dry winter.

The Observation Borehole Network

Groundwater level observation wells (in this context, a well includes both shafts - constructed by hand-digging - and boreholes - contructed 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 effects locally of groundwater abstractions. The number of observation wells required in different areas varies widely. Over the last two decades, 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 had to be substantially increased.

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 existing Water Data Unit archive, to be used for periodical assessments of the national groundwater situation. The selection was based upon the hydrogeological units identified in an investigation of the groundwater resources of the United Kingdom[1]; one site was chosen for each aquifer present within each unit. For Scotland and for Northern Ireland this was not possible due to the very limited number of observation wells available. In England and Wales, the total number finally selected was 175[2].

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. The following sites, listed in the register in Hydrological data: UK 1984, are no longer in use for observation of groundwater levels:

Chalk and Upper Greensand

SU14/1	Netheravon
SU61/28B	West End House
TG02/3	Main Street, Foulsham
TG32/67	School Road
TG34/14	Eden Hall
TM17/1	Old Parsonage House
TM19/2	Hill Farm
TR24/13	Eythorne Green

Lower Greensand

TQ41/79	Southover
TQ75/72	Marshall Cottages

Hastings Beds

TQ42/10	Greystones
TQ61/47	Old Kennels

TABLE 9 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	*
			(Spilsby Sandstone)	(**)
			Corallian	**
		Middle Jurassic	Great & Inferior Oolitic limestones	**
			(Lincolnshire Limestone)	(****)
		Lower Jurassic	Bridport & Yeovil Sands	**
			Marlstone Rock	*
UPPER PALAEOZOIC	Triassic	Keuper		
		Bunter		
	Permian		Permo-Triassic 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

Permo-Triassic sandstones

NY62/4	Espland Hill
SE36/9	Newfield Farm
SE83/9	Home-on-Spalding Moor

Magnesian Limestone

NZ32/1B Butterwick

The thirteen new sites listed below have been added to the list of selected wells, including one location in Scotland and three in Northern Ireland. Further sites in both Scotland and in Northern Ireland may be added in future years. The number of selected observation sites is now 170.

Superficial Deposits

IJ28/1	Dunadry (Northern Ireland)

Chalk and Upper Greensand

ID30/1	Killyglen (Northern Ireland)
SU61/32	Chidden Farm

Lower Greensand

TQ41/82	Lower Barn Cottages

Hastings Beds

TQ32/19	Horsted Keynes
TQ61/44	Dallington Herrings

Permo-Triassic sandstones

IJ26/1	Dunmurry (Northern Ireland)
NX97/1	Red Bank (Scotland)
NY63/2	Skirwith
SE36/47	Kelly's Cafe
SJ33/38	Hordley Wharf
SJ88/93	Bruntwood Hall

Magnesian Limestone

NZ32/19	Heley House

References

1 Monkhouse, R.A., and Richards, H.J. 1983. *Groundwater resources of the United Kingdom.* Commission of the European Communities, pub. Th. Schaeffer Druckerei GmbH, Hannover, 252 pages.

Monkhouse, R.A., and Murti, P.K. 1981. The rationalisation of groundwater observation well networks in England and Wales. *Institute of Geological Sciences, Report No. WD/81/1,* 18 pages.

Measurement and recording of groundwater levels

The majority of observation wells are 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 an audible or visual signal at the surface. Measurements are normally made to the nearest 10 millimetres.

Some observation wells are equipped with continuous water level recorders, almost invariably activated by a float on the water surface. These recorders may be driven by clockwork or by electric battery power, and are capable of running unattended for periods of one to six months. Levels are usually recorded on paper charts or on punched paper tapes, and experiments have been made recording directly onto magnetic tapes. Water levels are generally recorded to the nearest 10 millimetres, although instruments may be accurate to 1 millimetre.

Pressure transducers have also been considered for water level measurement. However, available transducers will measure accurately over only a narrow range of fluctuation (up to 2 or 3 metres), or much less accurately over a wide range. They are not in general use.

Register of Selected Groundwater Observation Wells

Scope

The listed sites were selected so as to give a reasonably representative cover for aquifers throughout England and Wales. The wells are grouped according to the aquifers to which the water level variations in the wells are attributed. A generalised list of aquifers is given on page 182. While the aquifers are tabulated in stratigraphical order, most of the local names for individual strata are omitted and the intervening aquicludes are not shown.

The five columns of the register are:

Well Number

The well numbering system is based on the National Grid. Each 100 kilometre square is designated by prefix characters, e.g. SE, and is divided into 100 squares of 10 kilometre sides designated by numbers 00 (in the south-west corner) to 99 (in the north-east corner). Thus, the site SE93/4, is located in the 10 kilometre square SE93, while the number after the solidus denotes that the site is the fourth accessed in this square into the National Well Record collection.

A suffix such as A, B, etc., defines the particular well when there are several at the same site. For Northern Ireland, which is on the Irish Grid, the first of the prefix characters is always 'I'.

Two asterisks following the well number indicates a well or borehole for which hydrographs are shown on pages 25 to 34. The location of the index wells, and the outcrop areas of the principal aquifers, are shown on Figure 22.

Grid Reference

The six or eight figure references given in the register relate to the 100 kilometre National (or Irish) Grid square designated by the prefix characters in the Well Number.

Site

The name by which the well or borehole is normally referenced. The location of all the sites listed in the register are shown on Figure 22.

Water Authority

An abbreviation referencing the water authority, or other body, responsible for groundwater level measurement. A full list of codes, together with the corresponding names and addresses appears on pages 196 and 197.

Records Commence

The first year for which records are held for the groundwater archive.

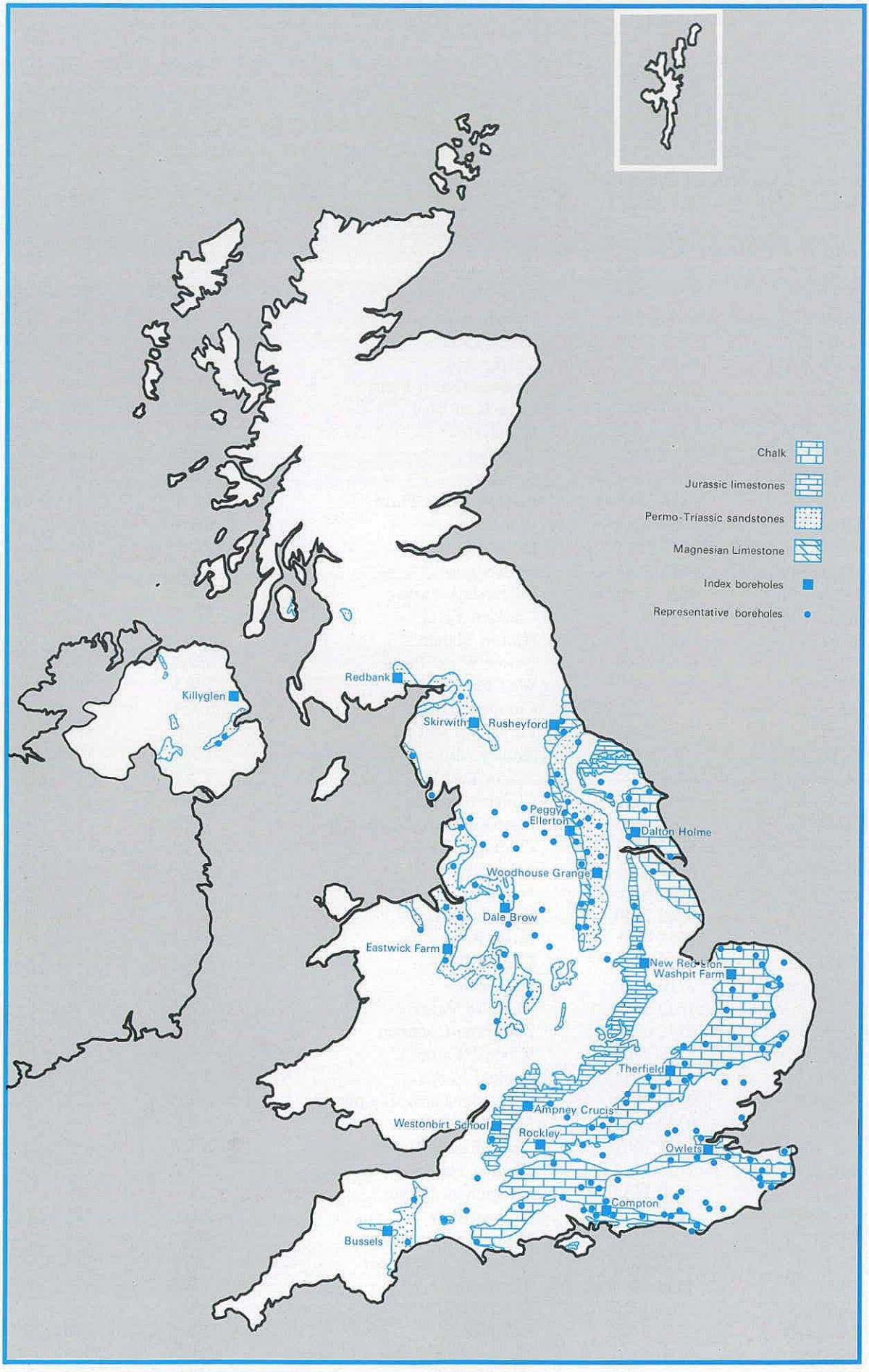


Figure 22. Principal aquifers and representative borehole locations.

Well Number	Grid Reference	Site	Water Authority	Records Commence
Aquifer : Superficial Deposits				
IJ28/1	225 862	Dundary	GSNI	1985
Aquifer : Chalk and Upper Greensand				
ID30/1 **	368 030	Killyglen	GNSI	1985
SE93/4	9212 3634	Dale Plantation	YWA	1970
SE94/5 **	9651 4530	Dalton Holme	YWA	1889
SE97/31	9345 7079	Green Lane	YWA	1972
SP90/26	9470 0875	Champneys	TWA	1962
SP91/59	9380 1570	Pitstone Green Farm	AWA	1970
ST30/7	3763 0667	Lime Kiln Way	SWWA	1969
SU01/5 B	0160 1946	Woodyates	WWA	1942
SU04/2	0310 4883	Tilshead	WWA	1966
SU17/57 **	1655 7174	Rockley	TWA	1933
SU32/3	3816 2745	Bailey's Down Farm	SWA	1963
SU35/14	3318 5647	Woodside	SWA	1963
SU51/10	5877 1654	Hill Place Farm	SWA	1965
SU53/94	5589 3497	Abbotstone	SWA	1976
SU57/159	5628 7530	Calversleys Farm	TWA	1973
SU61/32	6575 1775	Chidden Farm	SWA	1958
SU61/46	6892 1524	Hinton Manor	SWA	1953
SU64/28	6360 4048	Lower Wield Farm	SWA	1961
SU68/49	6442 8525	Well Place Farm	TWA	1976
SU71/23 **	7755 1490	Compton House	SWA	1893
SU73/8	7048 3491	Faringdon Station	TWA	1961
SU76/46	7367 6251	Riseley Mill	TWA	1975
SU78/45 A	7419 8924	Stonor Park	TWA	1961
SU81/1	8356 1440	Chilgrove House	SWA	1836
SU87/1	8336 7885	Farm Cottage, Coldharbour	TWA	1950
SU89/7	8103 9417	Piddington	TWA	1966
SY68/34	662 881	Ashton Farm	WWA	1977
TA06/16	0490 6120	Nafferton	YWA	1964
TA07/28	0940 7740	Hunmanby Hall	YWA	1976
TA10/40	1375 0885	Little Brocklesby	AWA	1926
TA21/14	2670 1890	Church Farm	YWA	1971
TF72/11	7710 2330	Off Farm	AWA	1971
TF74/1 A	7541 4087	Choseley Farm	AWA	1950
TF80/33	8738 0526	Houghton Common	AWA	1971
TF81/2 A**	8138 1960	Washpit Farm	AWA	1950
TF94/1	9160 4135	Cuckoo Lodge	AWA	1952
TG00/92	0440 0020	High Elm Farm, Deopham	AWA	1971
TG03/25 B	0382 3583	The Hall, Brinton	AWA	1952
TG11/5	1691 1101	The Spinney, Costessey	AWA	1952
TG12/7	1126 2722	Heydon Pumping Station	AWA	1974
TG21/9	2400 1657	Frettenham Depot	AWA	1952
TG21/10	2699 1140	Grange Farm	AWA	1952
TG23/21	2932 3101	Melbourne House	AWA	1974
TL11/4	1560 1555	Mackerye End House	TWA	1960
TL11/9	1692 1965	The Holt	TWA	1964
TL13/24	1200 3026	West Hitchin	AWA	1970
TL22/10	2978 2433	Box Hall	TWA	1964
TL33/4 **	3330 3720	Therfield Rectory	TWA	1883
TL42/6	4536 2676	Hixham Hall	TWA	1964
TL42/8	4669 2955	Berden Hall	TWA	1964

TL44/12	4522 4182	Redlands Hall	TWA	1964
TL66/2	6191 6013	Hall Farm	AWA	1964
TL72/54	7982 2516	Rectory Road	AWA	1968
TL84/6	8465 4106	Smeetham Cottages, Bulmer	AWA	1963
TL86/110	8850 6470	Cattishall Farm	AWA	1969
TL89/37	8131 9001	Grimes Graves	AWA	1971
TL92/1	9657 2562	Lexden Pumping Station	AWA	1961
TM15/112	1201 5618	Dial Farm	AWA	1968
TM18/2	1983 8600	Pulham Market	AWA	1952
TM26/46	2461 6109	Fairfields	AWA	1974
TM26/95	2786 6397	Strawberry Hill	AWA	1974
TQ01/133	0850 1170	Chantry Post, Sullington	SWA	1977
TQ21/11	2850 1289	Old Rectory, Pyecombe	SWA	1958
TQ28/119 B	2996 8051	Trafalgar Square	TWA	1845
TQ31/50	3220 1180	North Bottom	SWA	1979
TQ35/5	3363 5924	Rose & Crown	TWA	1876
TQ38/9 A	3509 8536	Hackney Public Baths	TWA	1953
TQ50/7	5592 0380	Old Rectory, Folkington	SWA	1965
TQ56/19	5648 6124	West Kingsdown	TWA	1961
TQ57/118	5880 7943	Thurrock A13	AWA	1979
TQ58/2 B	5622 8408	Bush Pit Farm	TWA	1967
TQ66/48 **	6649 6873	Owlets	SWA	1968
TQ86/55	8528 6185	Stockbury Valley	SWA	1963
TQ99/11	947 971	Burnham	AWA	1975
TR05/6	0239 5995	Step Cottage	SWA	1970
TR14/42	1065 4395	Kingsmill Down	SWA	1971
TR15/58	1281 5148	Cotterell Court	SWA	1970
TR34/81	3173 4725	Church Farm	SWA	1971
TR36/62	3208 6634	Alland Grange	SWA	1969
TV59/7 C	5290 9920	Westdean 3	SWA	1904
Aquifer: Lower Greensand				
SU72/47	7697 2414	Westmark Farm	SWA	1970
SU84/8 A	8716 4087	Tilford Pumping Station	TWA	1971
TL45/19	4110 5204	River Farm	AWA	1973
TQ41/82	4370 1320	Lower Barn Cottages	SWA	1975
TQ75/86	7135 5652	Kiln Barn Farm	SWA	1973
TR13/21	1132 3881	Ashley House	SWA	1972
TR23/32	2075 3650	Morehall Depot	SWA	1972
Aquifer: Hastings Beds				
TQ22/1	2348 2770	The Bungalow	SWA	1964
TQ32/19	3760 2890	Horsted Keynes	SWA	1968
TQ43/16	4245 3145	Garde Wych Cross	SWA	1973
TQ61/44	6658 1803	Dallington Herrings	SWA	1964
TQ62/89	6282 2348	Rose Lodge	SWA	1973
TQ71/123	7969 1659	Red House	SWA	1974
Aquifer: Upper Jurassic				
SE68/16	6890 8590	Kirkbymoorside	YWA	1973
SE77/76	7690 7300	Broughton	YWA	1975
SE98/8	9910 8540	Seavegate Farm	YWA	1971
SU49/40 B	4117 9307	East Hanney	TWA	1978
Aquifer: Middle Jurassic				
SP00/62 **	0595 0190	Ampney Crucis	TWA	1958
SP20/113	2721 0634	Alvescot Road	TWA	1975
ST51/57	591 169	Over Compton	WWA	1971
ST77/8	7834 7682	Tormartin 1	WWA	1973
ST89/32 **	8642 9030	Westonbirt School	WWA	1932

Aquifer: Lincolnshire Limestone				
SK97/25	9800 7817	Grange de Lings	AWA	1975
TF03/37 **	0885 3034	New Red Lion	AWA	1964
TF04/14	0429 4273	Silk Willoughby	AWA	1972
Aquifer: Permo-Triassic sandstones				
IJ26/1	291 694	Dunmurry	GSNI	1985
NX97/1 **	9667 7432	Redbank	SRPB	1981
NY00/328	0511 0247	Browbank Layby	NWWA	1974
NY45/16	4947 5667	Corby Hill	NWWA	1977
NY63/2 **	6130 3250	Skirwith	NWWA	1978
NZ41/34	4861 1835	Northern Dairies	NWA	1974
SD27/8	2172 7171	Furness Abbey	NWWA	1972
SD41/32	4400 1164	Yew Tree Farm	NWWA	1971
SD44/15	4396 4928	Moss Edge Farm	NWWA	1961
SE36/47	3945 6575	Kelly's Cafe	YWA	1977
SE39/20 B	3004 9244	Scruton Village	YWA	1969
SE44/4 B	4880 4850	Healaugh Pumping Station	YWA	1968
SE45/3	4470 5580	Cattal Maltings	YWA	1969
SE52/4	5473 2363	Southfield Lane	YWA	1955
SE55/4	5829 5383	Clifton Hospital	YWA	1967
SE60/76 **	6784 0709	Woodhouse Grange	STWA	1980
SE64/1	6751 4463	Wheldrake Station	YWA	1971
SE72/3 B	7047 2149	Rawcliffe Bridge	YWA	1971
SJ15/15	1374 5556	Oaklands Bridge	WELSH	1972
SJ33/38	3809 3112	Hordley Wharf	STWA	1975
SJ33/39 **	3814 3831	Eastwick Farm	WELSH	1974
SJ37/2 H	3805 7676	Bowater 6	NWWA	1971
SJ56/45 E	5042 6953	Ashton 4	NWWA	1969
SJ69/138	6311 9620	Kenyon Lane	NWWA	1968
SJ83/1 A	8969 3474	Stone	STWA	1974
SJ87/32 **	8969 7598	Dale Brow	NWWA	1973
SJ88/93	8611 8645	Bruntwood Hall	NWWA	1972
SJ96/41	9310 6301	Rushton Spencer 1	NWWA	1969
SK00/41	067 012	Nuttall's Farm	STWA	1974
SK21/111	2731 1419	Grange Wood	STWA	1967
SK24/22	2539 4431	Burtonshuts Farm	STWA	1972
SK56/53	5632 6440	Peafield Lane	STWA	1969
SK68/21	6100 8374	Crossley Hill Wood	STWA	1970
SK73/50	7693 3228	Woodland Farm	STWA	1980
SO71/18	7170 1970	Stores Cottage	STWA	1973
SO87/28	8160 7970	Hillfields	STWA	1961
ST12/48	108 267	Milverton Bypass	WWA	1972
SX99/37 B**	9528 9872	Bussels 7A S	WWA	1972
SY09/21 A	0666 9235	Heathlands	SWWA	1951
Aquifer: Magnesian Limestone				
NZ22/22 **	2875 2896	Rusheyford NE	NWA	1967
NZ32/19	3575 2650	Heley House	NWA	1969
NZ33/20	3349 3501	Garmondsway	NWA	1974
SE28/28	2460 8520	Bedale	YWA	1972
SE35/4	3830 5830	Castle Farm	YWA	1970
SE43/9 **	4535 3964	Peggy Ellerton Farm	YWA	1968
SE43/14	4660 3550	Coldhill Farm 35	YWA	1971
SE51/2	5210 1530	Westfield Farm	YWA	1971
SK46/71	4800 6030	Stanton Hill	STWA	1973
SK58/43	5248 8018	Southeads Lane	STWA	1973
Aquifer: Coal Measures				
SD62/35	6925 2945	Lion Brewery	NWWA	1974
SE23/4	2850 3414	Silver Blades Ice Rink	YWA	1971
SJ98/6	9394 8950	Chadkirk Marple	NWWA	1982

Aquifer: Millstone Grit				
SD55/5	5820 5350	Abbeystead	NWWA	1972
SD75/6	7826 5962	Hersley Farm	NWWA	1973
SD83/111	8803 3949	Red Scar Mill	NWWA	1974
SD92/8	9833 2660	Horsehold Farm	YWA	1971
SE04/7	0295 4792	Lower Heights Farm	YWA	1971
SE24/2 B	2067 4053	Green Lane Dyeworks	YWA	1971
SE27/8	2120 7380	Kirkby Moor Farm	YWA	1971
Aquifer: Carboniferous Limestone				
NT95/21	9695 5055	Middle Ord	NWA	1974
SE06/1	0241 6183	Jerry Laithe Farm	YWA	1971
SK15/16	1292 5547	Alstonfield	STWA	1974
SK17/13	1778 7762	Hucklow South	STWA	1969
ST64/36	6610 4460	Waterlip Quarry	WWA	1975

THE GROUNDWATER DATA RETRIEVAL SERVICE

A suite of retrieval programs has been written in order to facilitate data usage. At the present time, retrievals using the options described below are available for most of the sites listed in the register of selected groundwater observation wells, although not all the data contained within this archive have been validated.

Five options are available for retrieving data. A description of each option is given below and examples of the computer listings and graphical output are given on pages 192 to 195. 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 water authority, or by any combination of these parameters.

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.

Requests for retrieval options:

Requests for retrieval options 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 should be addressed to:

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

Telephone (0491) 38800

LIST OF GROUNDWATER DATA RETRIEVAL OPTIONS

OPTION NUMBER	TITLE	NOTES
1	Table of groundwater levels	All recorded observations of groundwater level in metres above Ordnance Datum, with dates of observation and maximum and minimum levels for each year. Specific years, or ranges of years, may be requested, otherwise the full period of record is given.
	Table of annual maximum and minimum groundwater levels	Annual maximum and minimum groundwater levels in metres above Ordnance Datum with dates of occurrence. Specific years, or ranges of years, may be requested, otherwise the full period of record is given.
	Table of monthly maximum, minimum and mean groundwater levels	Monthly maximum, minimum and mean groundwater levels in metres above Ordnance Datum, together with the number of years contributing values to the calculation of each monthly mean. A specific period of years may be nominated, otherwise the full period of record is given.
	Hydrographs of groundwater levels	Provides a well hydrograph for a number of specified years. Castellated annual plots of monthly maximum, minimum and mean groundwater levels calculated from a nominated period of years are superimposed upon the hydrograph, provided that the nominated period exceeds 10 years. Tabulations of

the monthly maximum, minimum and mean values are also listed, together with the number of years of record used in the calculations, and the number of observations used for each month.

Site details

The output comprises the well reference number of the British Geological Survey, the original (Water Data Unit) station number (where applicable), the hydrometric area, the aquifer name and code, the site name and location, the National Grid Reference, the depth of the well, the datum points (from which measurements are made), the altitude of the ground surface, the period of record and the water authority area in which the well or borehole is located.

Examples of these five options follow on pages 192 to 195.

OPTION 1 TABLE OF GROUNDWATER LEVELS

Station number	TF03/37
Station name	NEW RED LION, ASLACKBY (CONTINUES OLD RED LION)
Grid Reference	TF 0885 3034
Water Authority	AWA
Hydrometric Area	30
Aquifer	Lincolnshire Limestone
Aquifer Code	13
EEC Unit	AN03
Surface Level (MOD)	33.82
Datum Point (MOD)	33.45
Well Depth (M)	50.00
Max. Expected (MOD)	33.45
Min. Expected (MOD)	5.00
Period of records in Archive:-	1964 to 1985

Maximum GW Level for period of records 23.69
Number of Maxima 1.
Date(s):-
14 03 1977

Minimum GW Level for period of records 3 29
Number of Minima 1
Date(s):-
24 08 1976

(Note: The above reference information is also provided with the output from options 2–4)

Station Number	TF03/37
Year of record	1975
Date	Level (MOD)
03 Jan	17.29
31 Jan	16.68
28 Feb	17.85
04 Apr	20.31
24 Apr	20.12
02 May	20.13
30 May	18.58
13 Jun	17.34
11 Jul	15.77

01 Aug	14.44
29 Aug	13.24
26 Sep	12.11
10 Oct	11.57
07 Nov	10.42
21 Nov	9.85
19 Dec	8.98

Maximum GW level for year 20.31
Number of maxima 1
Dates 04 Apr
Minimum GW Level for year 8.98
Number of minima 1
Dates 19 Dec

OPTION 2 TABLE OF ANNUAL MAXIMUM AND MINIMUM GROUNDWATER LEVELS

Year	Max/Min	Level(MOD)	Date(s)	No. of occasions
1965	Max	21.50	26 Dec	1
	Min	7.85	24 Jan	
1966	Max	23.51	06 Mar	1
	Min	14.43	09 Oct-16 Oct	1 Period
1967	Max	19.79	04 Jun	
	Min	12.69	29 Oct	
1968	Max	22.06	17 Nov	
	Min	14.08	07 Jul	
1969	Max	23.17	30 Mar	
	Min	11.83	16 Nov	
1970	Max	20.21	26 Apr	
	Min	10.76	15 Nov	1

OPTION 3 TABLE OF MONTHLY MAXIMUM, MINIMUM AND MEAN GROUNDWATER LEVELS

Period maximum, minimum and mean groundwater levels for years 1964 to 1985

	Maximum	Minimum	Mean	No. of years
Jan	22.58	7.85	14.75	21
Feb	23.29	7.97	16.50	21
Mar	23.69	6.14	17.27	21
Apr	22.97	5.61	17.17	22
May	22.00	4.80	16.52	21
Jun	21.28	4.11	15.40	21
Jul	19.69	3.42	14.03	21
Aug	17.08	3.29	12.97	21
Sep	18.84	3.37	12.23	21
Oct	17.98	3.82	11.78	21
Nov	22.06	7.03	12.08	21
Dec	21.51	7.81	13.04	21

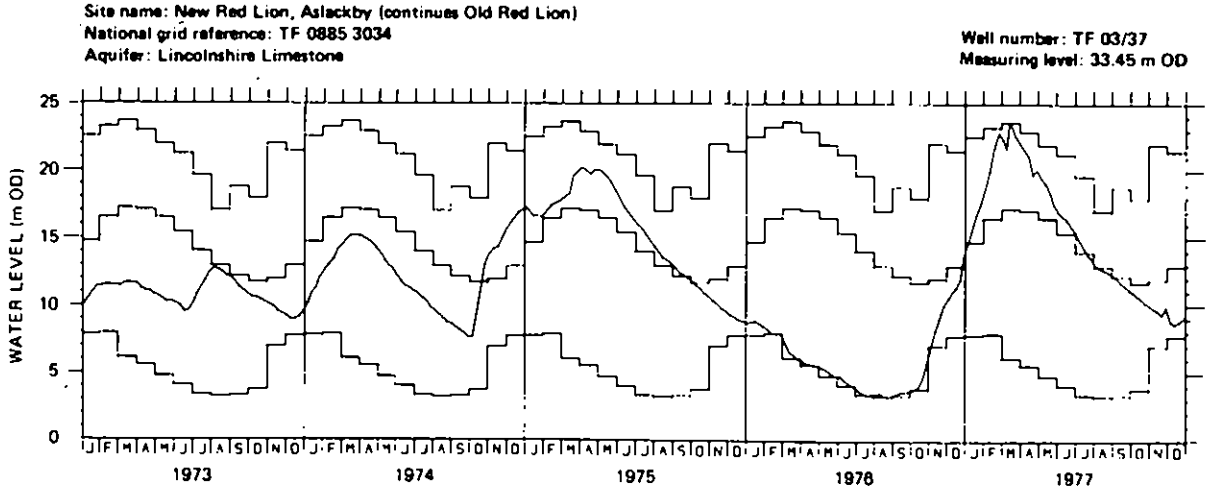
OPTION 4 HYDROGRAPHS OF GROUNDWATER LEVELS

Hydrograph of monthly maximums, minimums and means calculated from years 1964 to 1982

Therefore maximum number of years from which monthly maxs, mins and means may be calculated is 19

	Maximum	Minimum	Mean	No of Years contributing values to mean calculations
Jan	22.58	7.85	14.77	18
Feb	23.29	7.97	16.47	18
Mar	23.69	6.14	17.34	18
Apr	22.97	5.61	17.23	19
May	22.00	4.80	16.42	19
Jun	21.28	4.11	15.23	19
Jul	19.69	3.42	13.97	19
Aug	17.08	3.29	12.98	19
Sep	18.84	3.37	12.28	19
Oct	17.98	3.82	11.85	19
Nov	22.06	7.03	12.20	19
Dec	21.51	7.81	13.09	19

Hydrograph(s) plotted for year ranges:- 1973 to 1977



OPTION 5 SITE DETAILS

BGS NUMBER	COMPUTER NUMBER	HA	AQ	NAME—LOCATION REC—PERIOD—WA AQUIFER	GRID REF.	DEPTH (M)	DATUM POINT	SURFACE LEVEL
NZ22/22	25624	25	17	RUSHYFORD NORTH EAST, GREAT CHILTON 1957-1985 NWA MAGNESIAN LIMESTONE	NZ 2875 2896	62.50	92.65	92.53
SE94/5	26352	26	6	DALTON ESTATE, DALTON HOLME 1889-1985 YWA CHALK AND UPPER GREENSAND	SE 9651 4530	28.50	34.57	33.50
SE43/9	27360	27	17	PEGGY ELLERTON FARM, HAZLEWOOD 1968-1985 YWA MAGNESIAN LIMESTONE	SE 4535 3964	55.42	51.40	51.40
TF03/37	30229	30	13	NEW RED LION, ASLACKBY (CONTINUES OLD RED LION) 1964-1985 AWA LINCOLNSHIRE LIMESTONE	TF 0885 3034	50.00	33.45	33.82
TF81/2	33343	33	6	WASHPIT FARM 1950-1985 AWA CHALK AND UPPER GREENSAND	TF 8138 1960	40.40	80.21	80.69
TL33/4	38511	38	6	THERFIELD RECTORY, THERFIELD 1883-1984 TWA CHALK AND UPPER GREENSAND	TL 3330 3720	84.10	154.82	154.82
SU17/57	39350	39	6	ROCKLEY, OGBOURNE ST. ANDREW 1933-1985 TWA CHALK AND UPPER GREENSAND	SU 1655 7174	17.60	146.57	146.39
SU71/23	41426	41	6	COMPTON HOUSE, COMPTON 1894-1985 SWA CHALK AND UPPER GREENSAND	SU 7755 1490	53.80	81.37	81.37
SJ87/32	68476	68	16	DALE BROW, MACCLESFIELD 1973-1984 NWWA PERMO-TRIASSIC, SANDSTONES	SJ 8969 7598	152.40	138.66	138.36

DIRECTORY OF MEASURING AUTHORITIES

	Address	Code
Water Authorities		
Anglian Water	Amebury Road, Huntingdon PE18 6NZ	AWA
Northumbrian Water	Northumbria House, Regent Centre, Gosforth, Newcastle-upon-Tyne, NE3 3PX	NWA
North West Water	Dawson House, Liverpool Road, Great Sankey, Warrington, WA5 3LW	NWWA
Severn Trent Water	Abelson House, 2297 Coventry Road, Sheldon, Birmingham, B26 3PU	STWA
Southern Water	Guildbourne House, Chatsworth Road, Worthing BN11 1LD	SWA
South West Water	Peninsula House, Rydon Lane, Exeter EX2 7HR	SWWA
Thames Water	Nugent House, Vastern Road, Reading RG1 8DB	TWA
Welsh Water	Cambrian Way, Brecon, Powys LD3 7HP	WELS (WELSH)
Wessex Water	Wessex House, Passage Street, Bristol BS2 OJQ	WWA
Yorkshire Water	West Riding House, 67 Albion Street, Leeds LS1 5AA	YWA
River Purification Boards		
Clyde River Purification Board	Rivers House, Murray Road, East Kilbride, Glasgow G75 OLA	CRPB
Forth River Purification Board	Colinton Dell House, West Mill Road Colinton, Edinburgh, EH13 OPH	FRPB
Highland River Purification Board	Strathpeffer Road Dingwall IV15 9QY	HRPB
North East River Purification Board	Woodside House, Persley, Aberdeen AB2 2UQ	NERPB
Solway River Purification Board	Rivers House, Irongray Road Dumfries DG2 OJE	SRPB
Tay River Purification Board	3, South Street Perth PH2 8NJ	TRPB
Tweed River Purification Board	Burnbrae, Mossillee Road, Galashiels TD1 1NF	TWRP
Other measuring authorities		
Borders Regional Council (Directorate of Water and Drainage Services)	West Grove, Waverley Road, Melrose TO6 9SJ	BRWD
Corby (Northants) and District Water Company	Geddington Road, Corby, Northants NN18 8ES	CDWC

Department of the Environment (Northern Ireland)	Stormont, Belfast BT4 3SS	DOEN
Dumfries and Galloway Regional Council (Water and Sewerage Department)	70 Terregles Street Dumfries DG2 9BB	DGRW
Essex Water Company	Hall Street, Chelmsford CM2 0HN	EWC
Geological Survey of Northern Ireland	20 College Gardens, Belfast BT9 6BS	GSNI
Grampian Regional Council (Water Services Department)	Woodhill House, Ashgrove Road West,	GRWD
Highland Regional Council (Water Department)	Regional Buildings Glenurquhart Road Inverness IV3 5NX	HRCW
Institute of Hydrology	Maclean Building, Crowmarsh Gifford, Wallingford, OX10 8BB	IH
Lothian Regional Council (Water Supply Services Department)	6 Cockburn Street, Edinburgh	LRWD
Newcastle and Gateshead Water Company	PO Box 10, Allendale Road, Newcastle-upon-Tyne NE6 2SW	NGWC
North of Scotland Hydro-Electric Board	16 Rothesay Terrace, Edinburgh EH3 7SE	NSHE
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

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	£12	£15
Yearbook 1984	1986	£12	£15
Yearbook 1985	1987	£12	£15
Reports:			
The 1984 Drought[1]	1985	– –	£12
Hydrometric Register and Statistics 1981–5[2]	1987	£12	£15

The Yearbooks are available as bound volumes or as sets of pre-punched sheets for insertion in a ring binder designed to hold the five yearbooks in each publication cycle. The ring binder may be purchased for £50 to include the 1981, 1982, 1983, 1984 and 1985 Yearbooks. Organisations and individuals purchasing the ring binder will be entitled to receive free updates of the data sheets for individual Yearbooks when a significant revision to the published data is made.

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

Institute of Hydrology
Maclean Building
Crowmarsh Gifford
WALLINGFORD
OXFORDSHIRE OX10 8BB

Telephone: Wallingford (0491) 38800

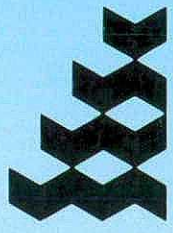
Enquiries or comments regarding the series, or individual publications are welcomed and should be directed to the Surface Water Archive Office at the above address.

[1]The 1984 Drought

The 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 both in the perspective provided by historical records of rainfall and runoff, and in the context of the recent somewhat erratic climatic behaviour.

[2] Hydrometric Register and Statistics 1981–5

This reference volume, to be published shortly, will include maps and tabulations giving gauging station and catchment details for over 800 river basins, together with borehole reference information for selected representative sites throughout the United Kingdom. Summary hydrometric statistics, for each of the years 1981–5, will be provided alongside the corresponding long term averages and extremes. This will allow the recent variability in surface and groundwater resources to be considered in a suitable historical context.



Natural
Environment
Research
Council

The Institute of Hydrology and the British Geological Survey
are component establishments of the
Natural Environment Research Council

Design: P A Benoist

Graphics: J J Carr

Typeset by Burgess & Son (Abingdon) Ltd.