NRA

Severn-Trent Region

HYDROMETRIC REPORT AND CATALOGUE 1991

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NRA

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JULY 1992

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FOREWORD

The 1991 Hydrometric Report and Catalogue is one of a series of annual hydrometric summaries produced by the NRA Severn-Trent Region.

It contains a short hydrometric review of the year 1991 with a range of data summaries at key sites.

The hydrometric catalogue section contains listings of the river level and flow stations, groundwater boreholes, rainfall gauges and climate stations maintained by the region.

INTRODUCTION

The 1991 Hydrometric Report and Catalogue represents the third published since the National Rivers Authority assumed responsibility for hydrometric data in the Severn-Trent region.

The report is designed to give an insight into the type and availability of data that can be obtained from established measurement stations. The catalogue section provides comprehensive lists of these stations with maps to identify their locations.

The production of the report and the data it contains represents a combined effort, both from the field hydrometric staff who maintain the stations and undertake vital calibrations, and the staff within the Hydrometric & Data section where the data is processed and archived for future use. The co-ordination of the 1991 report has been supervised by Andrew Pimperton, and any suggestions or errors should be passed to Andrew or the Data section staff, at Sapphire East, Solihull.

It should be noted that this report can only show a sample of the data currently available and that it would be unrealistic to summarise all of the data collected during the year. Requests for data that is not included should be directed to the staff of the Data section at Solihull.

As awareness increases for the need to manage water resources in times of drought, and to provide improved forecasts in times of flood, the requirement for accurate hydrometric information becomes ever more essential . This report is produced to support these and other functions of the NRA, by giving an indication of the available data, and to act as a reference for the year 1991.

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1. HYDROMETRIC REVIEW

The year was again dominated by the continuing period of low rainfall and river flows. Overall the Region received 83% of the long term average rainfall, with the River Severn catchment area slightly wetter at 87% than the River Trent with 78% of the long term average. Within this there were marked local variations as shown by Table 21. Runoff was generally low reflecting the rainfall pattern and the decreasing contributions caused by falling groundwater levels.

Low flow surveys were initiated in late August, continuing into mid September. A total of 15 surveys were completed covering the whole of the Region. In many catchments measured flows fell below those of 1989 and 1990 with the rivers Dove, Derwent and lower Trent tributaries recording particularly low flows.

In addition to the surveys, low flows have an impact on the level of hydrometric activity in other ways. Flow measurement stations, and particularly those without structures, require more frequent check gaugings and maintenance and the workload involved in supporting abstraction monitoring and pollution control is greatly increased. The routine workload of site visits, chart changing, borehole dipping and office work must continue irrespective of additional seasonal demands.

Almost three thousand current meter gaugings were completed during the year, about the same number as for 1990. These were added to the database archive that now holds over 52,000 gaugings.

As in the previous year, the network of flow measurement stations was enhanced and expanded to improve the quantity and quality of data available to users. The installation of ultrasonic flow gauges at Shardlow (R. Trent), Kegworth (R. Soar), Triumph Rd. Nottingham (R. Leen) and Sandiacre (R.Erewash) filled important gaps in the network, all four sites having formerly proved difficult using conventional measurement methods. The growing requirement for data in the northern part of Lower Trent Area was reflected in the reopening of the sites at Cuckney (R.Poulter) and Blyth (Oldcoates Dyke), for groundwater management purposes. In addition work started on the

construction of flow measurement structures at Llanyblodwel (R.Tanat), to improve low flow accuracy for operational data; at Mansfield (R.Maun), to provide data for groundwater investigations; and at Coley Mill (Coley Bk.), for water resources and abstraction control purposes.

Within the data processing section at Headquarters the main developments were in expanding retrieval and analysis facilities associated with the gauging database and continuing to extend the volume of data available within the 'Rainark' rainfall data processing system.

1.1 Monthly Hydrological Summary

January

The year began with high river levels following heavy rainfall in late December 1990. Further rainfall during the 3rd-10th of January caused washland flooding along the length of the River Severn to Tewkesbury. These same conditions caused minor washland flooding along the River Tame and Soar with renewed rain on the 18th producing rapid rises on the Soar. The month ended with snow falls in the Welsh mountains.

February

February began with extremely cold conditions combined with heavy falls of snow across the region. The cold conditions, with a slow thaw reduced flows in rivers to below average. However, prolonged rainfall over the Welsh mountains on the 22nd produced flooding of the Severn upstream of Montford, and to the east the rain caused high levels on the river Soar and Wreake.

March

Heavy rainfall was recorded in early March across the Welsh Uplands and Shropshire Hills. A further 30mm was recorded on the 7th when rain spread across the whole region. Washland flooding occurred on the Teme with rises in the Severn, Vyrnwy and Avon. Flows in the Trent basin were below average and this continued as the month ended dry with flows falling steadily.

April

April also began with heavy rainfall (80mm) over the Welsh mountains, with heavy showers recorded across the region from the 3-7th. Flows then began to recede due to a mid month dry spell, with soil moisture deficits increasing to an average of 25mm. This ended on the 29th when a band of heavy rain crossed the region, producing falls of 30mm in the Upper Trent area.

May

May was an exceptionally dry month, with the region receiving only 18% of average rainfall. Warm weather caused flows to recede rapidly, with soil moisture deficits increasing to 40mm on average for the region. Cooler weather later in the month helped slow the rapid recession.

June

June witnessed unsettled showery weather across the region, with rainfall being well above average for the month. Rainfall was locally intense on a number of days, including the 8/9th and the 24/27th. Flows responded to the rain on the 8/9th, but then receded slightly until further heavy rain arrived at the end of the month. The wet weather kept soil moisture deficits below average, ranging from 0-40mm in upland regions and 40-92mm elsewhere by the end of the month.

July

July was a month of generally unsettled weather with a warm moist front on the 3rd producing heavy rain in the east of the region. Scattered showers continued and there were localised thunderstorms across the region. The lack of any prolonged rain produced declining river flows. A period of dry weather was interrupted at the end of the month by rain in the west of the region. Soil moisture deficits showed a wide variation being zero in the headwaters of the Severn to over 100mm in the Lower Trent Area.

1.1 Monthly Hydrological Summary (continued)

August

A generally dry month over most of the region, apart from the Welsh mountains which received 42mm of rain on the 9/10th and then a further 67mm over the following fortnight. River flows fell steadily throughout the region, apart from the headwaters of the Severn which showed a rise following the aforementioned rain. Soil moisture deficits had increased in all areas by the end of the month, with a wide variation present from east to west.

September

September began dry, with no rain in the first fortnight, causing flows to recede steadily in all rivers. From the 14th onwards cooler showery weather brought rain across the region, with the majority on the higher ground. Heavier falls of rain at the end of the month, with daily falls on the 28th of 56mm over the middle reaches of the Severn and 49mm over the Soar, increased flows sharply and reduced soil moisture deficits in all areas.

October

The period of cool, wet weather continued from the end of September, with further heavy rain falling on the 7th and again on the 16/17th. Dry, cold weather continued over the region until the end of the month, when more unsettled weather produced substantial rainfall mainly over the Welsh uplands. Soil moisture deficits reduced in the high ground areas, but elsewhere they remained above average preventing any improvement in the river flows in the lowland areas.

November

November also began with wet unsettled weather, with heavy rainfall on the 10th over the Welsh mountains, and further widespread periods of rain across the region on the 18th. This wet weather produced minor washland flooding in parts of the Upper Severn basin, and significant increases in flows within the Trent basin. The month ended with a dry period, caused by a high pressure system moving over the region.

December

The high pressure system continued to dominate the weather in the first half of December with very cold dry weather across the region. After the 14th, unsettled showery weather returned with heavier rain over upland areas on the 18th. The rain continued, culminating on the 20/21st with a storm which affected high ground in Wales and the Peak District. This caused widespread washland flooding along the River Severn to Buildwas, but the worst flooding was reported in the Dove and Derwent catchments.

1.2 Event of the 20/21st December 1991

Although the year was dominated by low flows and below average rainfall, there was a notable event at the other hydrological extreme that occurred in December 1991.

A period of wet unsettled weather from the 17th of December, culminated in prolonged heavy rainfall over high ground in Wales and the Peak District on the 20/21st. Maximum rainfall totals reached 110mm at Hollinsclough in Dovedale. Estimates of the frequency of the 39 hour storm were 1 in 80 years, with over 75mm recorded over much of the Dove and Derwent catchments. Although the upper Severn was not the wettest area, totals on the highest ground still exceeded 100mm. The rain followed a period of very cold weather, giving some modest snow in Derbyshire. The ground may have been partly frozen and was at or close to field capacity in the upland areas, these conditions reducing infiltration and allowing rapid runoff.

The storm produced widespread out of bank conditions for many of the region`s rivers on the 21st and 22nd. On the rivers Severn and Vyrnwy flooding affected major roads and washlands, with a peak flow recorded at Montford of 318 m^3/s which was a mean annual event (1 in 2.33 yrs).

In the Derwent catchment the flood peak was reduced because Ladybower Reservoir, which did not overflow, provided significant flood storage. Nevertheless, the A6 and many minor roads were affected, with general washland inundation along the Derwent and its tributaries. Peak flows at Chatsworth reached 127 m^3/s and at Matlock 165 m^3/s which are estimated at 1 in 10yr and 1 in 5 yr floods respectively.

1.2 Event of the 20/21st December 1991 (continued)

The most serious flooding occurred in the Dove catchment, where twenty properties and eight major roads were flooded. Flows on the River Manifold at Ilam and Izaak Walton on the River Dove were the highest on record, so the flood frequency was difficult to calculate, but was estimated as greater than 1 in 50 yrs. In the lower reaches, where extensive washland flooding occurred, the frequency was estimated as 1 in 15/20 yrs at Marston-on-Dove. Figure 1 shows the flows at three stations along the River Dove and the hourly rainfall at Hollinsclough. It clearly shows the rapid response of the river to the rainfall, and the progression of the flood peak as it moves downstream.

FIGURE 1.

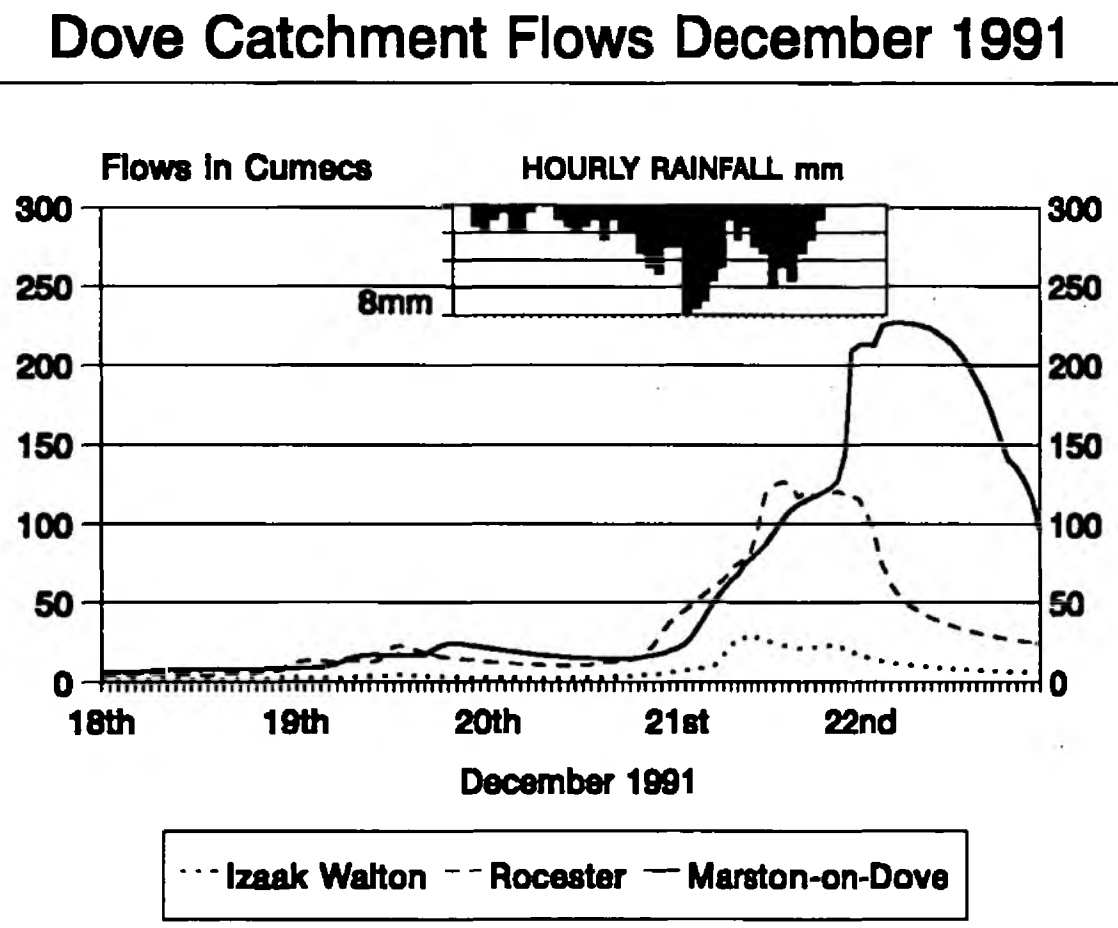

TABLE 1
HYDROMETRIC FACTS 1991 SEVERN-TRENT REGION

Number of River, Tidal & Reservoir Level Sites	228
Number of Gauging Stations Measuring Flows	96
Number of Ultrasonic Gauging Stations	12
Number of Electromagnetic Gauging Stations	11
Number of Open Channel Gauging Stations	13
Number of Structure based Gauging Stations	60
Number of Current Meter Gaugings in 1991	2970
Number of Event Rainfall Intensity Stations	92
Number of Storage Gauge Rainfall Sites	354
Number of Full Climate Stations	1
Number of Groundwater Observation Boreholes	352

2. CURRENT METER GAUGINGS

A current meter gauging is a direct measurement of flow taken manually using a current meter, over a short period of time. Nearly three thousand gaugings were completed in 1991, they were carried out for a variety of reasons, and for a range of different NRA functions.

Gaugings are undertaken for hydrometric purposes, which include monitoring the accuracy of rating curves used for flood forecasting and flow processing, and to check the calibrations of ultrasonic and electromagnetic flowgauges. They are used to provide data for pollution control and quality monitoring, for both incidents and routine monitoring. Gaugings are needed for water resources work, to monitor river flows for licensing and abstraction control, and to investigate the hydrological characteristics of catchments.

A database archiving system now exists within the Data section which presently holds more than 52,000 historic gaugings, with a link which captures new gaugings as they are processed. The system provides vastly improved access, manipulation and reporting facilities than previous card index systems.

2.1 LOW FLOW SURVEY TABLES.

As with 1989 and 1990, once it became clear that lower than normal flows were going to be experienced, surveys were organized to provide data on flow variations within specific subcatchments. The majority of the surveys were carried out during August and September.

The results of the 1991 surveys are given in Tables 2-9, with data included from 1989 and 1990 for comparison. The surveys are listed in downcatchment order for each subcatchment. Each survey was completed in one or two days and flows are comparable, with the flow data given in megalitres per day (Ml/d). The data has been extracted from the database system into which gaugings processed by area staff are now captured directly.

2. CURRENT METER GAUGINGS (continued)

Processed mean daily flow data has been included for many continuous flow measurement stations to provide information for additional sites and to demonstrate the relative change in river flows between different surveys. These flows are marked (MDF) after the station name. For some sites both processed and current meter derived flows are given. Differences in flows are to be expected and may be due to a variety of causes, principally that the MDF is the mean for a 24 hour period starting 09.00 GMT, whilst a current meter gauging will typically measure the flow over a period of between fifteen minutes and two hours. However, some of the difference will be due to random and systematic errors in both gauging and in the flow calculation process, which may vary greatly from site to site.

The precise site chosen for gauging may vary from survey to survey. Where the quoted grid references vary significantly, these are shown as separate sites as it cannot usually be established if there are any factors affecting flow between them.

The date given at the head of the table for each survey is that on which the majority of the gaugings were taken. Some surveys extended over two days, and this should be taken into consideration if the exact date is required.

The accuracy of current meter gauging data varies greatly according to site conditions. Percentage errors can be large at low flows. The results are expressed to two decimal places to provide sufficient precision for very small flows, but current meter data cannot be said to be accurate to two decimal places of a megalitre. The data should be used with care and if in doubt consult the hydrometric data staff.

TABLE 2
LOW FLOW SURVEYS 1989, 1990 & 1991
UPPER SEVERN CATCHMENT : FLOWS IN MLD

River Name	Location	NGR	27/06/89	18/07/89	08/08/89	12/09/89	05/10/89	26/07/90	08/08/90	12/09/90	09/09/91
DULAS	RHOS-Y-PENTREF (MDF)	SN95008240	3.80	1.40	0.90	1.50	3.00	3.50	2.10	1.60	6.83
CLYWEDOG	BRYNTAIL (MDF)	SN91308680	309.00	402.00	477.00	304.00	128.00	466.00	526.00	402.00	500.69
SEVERN	DOLWEN	SN99608510					154.00				
TRANNON	TREFEGLWYS	SN98109050					1.10				
CARNO	CAERSWS	SO02609180					1.52		1.42		
SEVERN	CAERSWS	SO03009160					153.00				
CANAL FEEDER	PENARTH WEIR	SO13959256		18.48			21.89		16.89		13.25
BECHAN BK.	ABERCHAN	SO14009385					0.84		0.91		
MULE	ABERMULE	SO16409460					3.89		4.01		
SEVERN	ABERMULE	SO16459570		411.00			165.00		488.88	395.00	
RHIW	BERRIEW	SJ18800070					3.23		2.69		
SEVERN	LEIGHTON	SJ23500690					183.00				
BELE BK.	WERN BRIDGE D/S	SJ25301368		0.01							
BELE BK.	WERN BRIDGE U/S	SJ25321368		3.26							
NEW CUT	CANAL OUTFALL D/S	SJ25341406		4.44							
NEW CUT	NEATH BK. U/S CONF	SJ27361563		4.73							
NEATH BK.	NEW CUT U/S CONFL	SJ27401569		1.40							
NEW CUT	OFFAS DYKE U/S	SJ28201570		5.50					4.66		
VYRNWY	VYRNWY WEIR (MDF)	SJ01901910	92.20	87.00	91.10	77.80	76.20	103.60	125.90	102.90	169.08
COWNWY DIVERSION	COWNWY WEIR (MDF)	SH99901790	6.00	2.40		1.80	3.40	3.70	2.80	4.80	4.15
TANAT	LLANYBLODWEL	SJ25202250		51.09				61.85	27.22	26.05	
TANAT	LLANYBLODWEL (MDF)	SJ25202250	73.40	37.80	24.70	31.40	36.90	36.50	22.40	40.90	29.38
TANAT FEEDER	CARREGHOFA HALL	SJ25302160		5.78					7.17		9.33
VYRNWY	LLANYMYNECH	SJ25201950					185.00	239.73	170.30	197.21	
MAESBURY FEEDER	NEWBRIDGE	SJ30502490		0.22					5.25		
MORDA	LLWYNTIDMON	SJ29352050					16.87				
SEVERN (MINOR.TRIB)	COEDWAY	SJ34251475		0.17							
SEVERN	MONTFORD	SJ41201440	745.00	605.00					770.80	645.00	
TETCHILL BK.	HORDLEY	SJ38303050	6.60								
PERRY	YEATON (MDF)	SJ43401920	33.70	44.70	36.00	33.10	35.60	31.80	29.50	29.10	28.51
REA BK.(TRIB)	REABROOK FM.	SJ36250445		0.01				8.66		6.94	
REA BK.	HORSE BRIDGE	SJ37050590	8.54								
MINSTERLEY BK.	PLOXGREEN	SJ36800395	4.23								
CRUCKTON BK.	CRUCKTON	SJ43250979	4.92								
REA BROOK	HOOKAGATE (MDF)	SJ46600920	31.00	25.50	18.50	19.00	17.10	19.60	17.00	15.40	22.98
TERN	WILLOUGHBRIDGE	SJ74303955	2.36	3.53				1.99			4.73
TERN	TERNHILL (MDF)	SJ62903160	43.50	34.90	34.20	38.40	37.80	34.60	33.10	36.70	29.03
COAL BK.	CHIPNALL	SJ72603235	5.46	4.80				4.42			3.53
STOKE PARK BK.	OLLERTON	SJ64402600	3.34	2.58				2.75			2.42
TERN	EATON ON TERN (MDF)	SJ64902300	83.60	65.60	73.20	72.00	70.20	53.60	48.80	60.10	58.15
HUMESFORD BK.	GUILD LANE	SJ78802030			0.67	0.79			0.48	0.37	
WOOD BK.	RADMORE LANE	SJ78862148				1.08					
WOOD BK.	GUILD LANE	SJ78082114				1.13					
WOOD BK.	NEW GUILD FARM	SJ77902080			2.64			0.83	0.35	0.27	
DAWFORD BK.	GREAT CHATWELL	SJ80001440			1.30	1.14					
LYNN BK.	LYNN	SJ78701570			0.35			2.71	1.53		
LYNN BK.	STOCKTON MOORS	SJ78801620				1.53					

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MORETON BK.	LYNN BK. D/S CONFL	SJ78801620			3.20			4.96			
MORETON BK.	STOCKTON MOORS	SJ78501680			8.04	9.59		9.03		9.82	
BACK BK.	EUXLEY	SJ78101810			8.21	9.51					
COLEY BK.	COLEY MILL	SJ78101930			7.17	10.26					
MEESE	A519 ROAD BRIDGE	SJ75002070		15.22				11.28			
MEESE	FORTON	SJ74902080	13.22			44.22		11.43			
LONCO BK.(TRIB)	HIGH OFFLEY	SJ77602640			0.63	0.91					
LONCO BK.	TUNSTALL	SJ76902675	2.33	2.87	1.78	1.73		2.06		2.02	1.54
LONCO BK.	KNIGHTON	SJ74702665	4.75	4.35				3.59		4.27	3.86
LONCO BK.	WESTON JONES	SJ75502430			0.14						
LONCO BK.(TRIB)	WESTON JONES	SJ75602430			0.09						
LONCO BK.	WHITLEYFORD BRIDGE	SJ74652380	5.70	5.49	3.90	3.51		2.54	3.34	4.12	2.73
MEESE	PULESTON	SJ73402190	24.80					17.13			
LONCO BK.	FORTON	SJ74602190	5.70		3.78	0.16		1.75	3.70		
SAM BK.	SAMBROOK	SJ71652455	19.61	18.47		20.40		17.61			
MEESE	TIBBERTON (MDF)	SJ68002050	55.90	39.10	36.30	41.80	51.10	32.30	29.50	40.50	36.37
POTFORD BROOK	SANDYFORD BR. (MDF)	SJ63402200	6.80	5.30	4.20	3.90	3.60	4.10	3.80	4.50	4.15
STRINE BK.	NEWPORT	SJ74401940	6.94	3.35				2.92			
STRINE	NEWPORT	SJ74401930				3.44					
STRINE BK.	BUTTERY FARM	SJ69001730				6.60					
STRINE	RODWAY BRIDGE	SJ66201810				11.76					
STRINE(TRIB.)	WAPPENSHALL MOOR	SJ66901540			5.22						
STRINE (TRIB)	DUKES DRIVE	SJ65301630				8.19					
STRINE	CRUDGINGTON	SJ64061747	31.67	21.47		22.14		9.72			
STRINE	CRUDGINGTON (MDF)	SJ64061747	30.30	20.00	18.50	17.30	21.10	10.90	13.90	14.60	22.20
RODEN	SPENFORD BRIDGE	SJ47712969	5.43	3.05				1.41			3.95
RODEN	ASTON HALL	SJ53002856	21.03	11.16				6.21			8.17
SOULTON BK.	SOULTON BRIDGE	SJ54513024	9.88	4.80				6.95			6.05
RODEN	SHAWBURY	SJ56142127	35.07	26.98				19.70			19.48
RODEN	RODINGTON (MDF)	SJ58901410	43.90	32.00	25.10	33.40	35.40	23.70	21.60	29.30	30.67
TERN	WALCOT (MDF)	SJ59201230	232.00	224.00	215.00	238.00	257.00	138.00	135.00	186.00	164.16
COUND BK.	COUND	SJ55800560					9.26				
COUND BK.	VENUSBANK A458	SJ55800565	15.28								
HARLEY BK.	SHEINTON	SJ60600410					1.45				
SEVERN	BUILDWAS	SJ64400440	1262.00				832.00		969.00		
SEVERN	BUILDWAS (MDF)	SJ64400440	1201.00	1019.00	1007.00	973.00	826.00	987.00	990.00	969.00	1188.52
WORFE	LIZARD MILL FORD	SJ78620961						1.24	0.00	0.00	0.88
WORFE	HOLE FARM	SJ77900540						0.51			0.76
NEACH LEY BK.	HOLE FARM	SJ78300670						7.27			1.90
ALBRIGHTON BK.	COSFORD	SJ78100458						0.35			0.39
WORFE	COSFORD	SJ78500456						11.85			
WESLEY BK.	GRINDLEFORD	SJ75350327						2.44			2.58
WORFE	RYTON	SJ75960265						3.14			3.62
WORFE	BECKBURY	SJ75800160						3.91			4.26
MAD BK.	BECKBURY	SJ75700150						1.27			3.07
WORFE	STAPLEFORD	SO75909880									9.75
WORFE (TRIB)	BADGER DINGLE	SO76409920									1.81

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River Name	Location	NGR	27/06/89	18/07/89	08/08/89	12/09/89	05/10/89	26/07/90	08/08/90	12/09/90	09/09/91
WORFE	WORFIELD	SO76009540						8.27			12.36
STRATFORD BK.	HILTON	SO77609540						3.98			6.98
WORFE	BURCOTE (MDF)	SO74709530	23.60	18.10	20.00	24.50	32.10	17.50	13.60	24.10	22.38
MOR BK.	EARDINGTON	SO70659050									
BORLE BK.	BORLE MILL NETHERTON	SO73308265									
DOWLES BROOK	OAK COTTAGE (MDF)	SO76807640	4.10	2.90	2.20	4.00	2.40	1.55	1.30	1.50	1.81
SEVERN	BEWDLEY	SO78207620	745.00				736.00	916.00	880.00		
SEVERN	BEWDLEY (MDF)	SO78207620	1026.00	915.00	827.00	882.00	739.00	838.00	858.00	847.00	937.44
STOUR (WORCS)	LYE	SO92208500			24.28				25.10		
STOUR (WORCS)	PRESTWOOD	SO86908630			37.84						
SMESTOW BK.	TRESCOTT FORD	SO85209720			21.00				8.45		
PENN BK.	WOMBOURNE	SO85809230			3.63				3.08		
SMESTOW BK.	SWINDON	SO86109060			35.34				14.90		
SMESTOW BK.	GOTHERSLEY FARM	SO86108640			40.00				23.18		
STOUR (WORCS)	STOURTON	SO86208480			82.18						
HAGLEY BK.	BLAKEDOWN U/S WRW	SO87257825			1.24				0.66		
STOUR (WORCS)	KIDDER/GILT EDGE	SO82847687			108.00						
STOUR (WORCS)	KIDDER/CALLOWS (MDF)	SO82907670	244.00	162.00	145.00	138.00	154.00	113.20	141.90	130.40	98.07
BATTLEFIELD BK.	BROMSGROVE U/S WRW	SO96106940			1.19				0.63		
HEN BK.	HENBROOK	SO92906690			1.72				1.87		
SALWARPE	HENBROOK	SO92786685			12.18				12.36		
HADLEY BROOK	WARDS BRIDGE (MDF)	SO87006310	7.90	6.00	6.80	6.60	6.10				6.22
SALWARPE	HARFORD HILL	SO86806180		30.33	27.92				17.82		
TEME	BEGUILDY	SO19108020						7.21		3.83	
TEME	KNIGHTON	SO28907240								12.34	
TEME	WALFORD	SO38507310						25.50		17.54	
CLUN	CLUN	SO30008080						9.91		6.51	
CLUN	CLUNGUNFORD	SO39307860						20.62		15.01	
TEME	CRIFTINFORD BRIDGE	SO42007210						62.81		48.40	
ONNY	CHEYNEY LONGVILLE	SO43208480						4.66		5.52	
BYNE BK(D/S QUINNEY)	STREETFORD	SO44408560						3.74		2.48	
ONNY	ONIBURY	SO45507890		16.76				14.78	12.32	13.99	23.81
TEME	LUDLOW U/S CORVE	SO50507520						85.80		77.90	
CORVE	CULMINGTON	SO49408210						0.03		0.16	
CORVE	LUDLOW	SO51007540						3.64		2.65	
LEDWYCHE BK. LUDLOW	DOGDITCH BK D/S	SO54007640						7.02		5.34	
LEDWYCHE BK.	TENBURY U/S OF TEME	SO57506820						8.30		6.64	
KYRE BK.	TENBURY	SO59706840						2.28		1.64	
TEME	TENBURY	SO59706850		120.00				101.54		86.75	
TEME	TENBURY (MDF)	SO59706850	191.00	129.00	76.40	83.60	70.60	105.10	86.30	86.30	139.80
CORN BK.	CLEE HILL	SO60317555									
REA	HARDWICKFORGE	SO66208210						8.66		6.94	
REA	NEEN SOLLARS	SO66407240						15.63		12.08	
TEME	KNIGHTSFORD	SO73405570	223.00	185.00				128.56		103.39	
TEME	KNIGHTSFORD (MDF)	SO73405570	249.00	154.00	118.00	112.00	80.50	156.20	119.20	105.80	119.84
LEIGH BK.	LEIGH COURT	SO78205350						3.75		4.54	
LAUGHERNE BK.	A4103	SO82805390						2.10		1.18	

TABLE 3
LOW FLOW SURVEYS 1989, 1990 & 1991
AVON CATCHMENT

RIVER NAME	LOCATION DESC.	NGR	25/07/89	07/08/89	24/08/89	28/07/90	06/08/90	17/09/90	03/09/91
AVON	NORTH KILWORTH	SP62008200	5.10		7.26	3.40	2.58		6.19
CLAYCOTTON BK.	LILBOURNE	SP56807740	1.64		1.30		0.55		0.51
AVON	LILBOURNE	SP56307780	3.28		3.11	1.97	1.67		1.92
AVON	BROWNSOVER U/S WKS.	SP52307660	6.91		6.00		4.34		6.29
AVON	BROWNSOVER D/S WKS.	SP51307640	6.83		1.18		4.34		
SWIFT	RUGBY	SP50507750	1.56		1.61	0.61	0.21		1.13
SWIFT	LUTTERWORTH	SP54508410	6.05		4.75	7.53	4.03		
SWIFT	CHURCHOVER	SP50508140	9.59		6.59				
AVON	RUGBY	SP50207760	10.02		10.93	2.90	5.21		8.54
AVON	LITTLE LAWFORD	SP46907710	34.99		24.68	13.19	17.38	15.00	20.44
AVON	RYTON BRIDGE	SP36807530	45.06		39.63	21.44	25.40	23.62	29.04
AVON	STARETON	SP33267156	35.77		34.90	25.88	28.19	26.33	40.40
AVON	STARETON (MDF)	SP33267156	46.50	38.80	40.10	29.38	24.36	29.46	34.39
WITHY BK.	HIGH BRIDGE	SP38608070			2.38	1.94	1.45	1.91	2.33
SMITES BK.	PRIESTS BRIDGE	SP42208040	2.51		2.82	1.47	1.37	1.87	1.90
SMITES BK.	SOWE BRIDGE	SP38007940	1.47		2.10	0.76	0.21	1.08	
SOWE	A423 RD BRIDGE	SP35807630	21.17						
SOWE	A45 RD US SHERBOURNE	SP34607560			18.80		19.39	11.63	11.64
SOWE	CLIFFORD BRIDGE A46	SP37708070	11.40		15.00	7.09	7.91	5.91	6.07
SOWE	STONELEIGH (MDF)	SP33107300	124.00	126.00	119.00	117.59	121.13	118.37	120.61
SHERBOURNE	BAGINGTON	SP34307580	13.82		12.68	5.89	6.39	12.29	6.38
FINHAM BK.	KENILWORTH	SP30007290	3.54		3.66	3.64	2.63	2.68	2.95
AVON	WARWICK	SP29906530	145.00			65.58			187.37
LEAM	THURLASTON BRIDGE	SP46806860	2.59		3.11	2.30	1.46	2.14	3.93
LEAM	MARTON	SP40606910	7.69		7.92	5.58	5.73	4.98	9.52
ITCHEN	SOUTHAM	SP40206160	1.81		1.62	0.92	0.92	1.08	1.44
ITCHEN	BISHOPS ITCHINGTON	SP39605840	0.26		0.10	0.21	0.11	0.30	0.27
ITCHEN	SNOWFORD BRIDGE	SP39306640	4.58		5.40	4.17	3.03	4.14	7.20
LEAM	EATHORPE	SP38806880	41.56		19.90	28.60	36.52	26.76	24.49
LEAM	EATHORPE (MDF)	SP38806880	38.40	29.00	34.50	36.46	36.20	30.50	28.43
LEAM	LEAMINGTON (MDF)	SP30706540	34.30	19.90	13.20	31.22	23.53	32.14	22.20
TACH BK.	NR.CONFL.AVON	SP29506350	3.97		3.75			3.07	
DENE	WALTON HALL	SP29105080	1.21		0.92	2.29	1.18		
DENE	WELLESBOURNE	SP27305560			4.96	4.80	5.44	4.18	4.89
DENE	WELLESBOURNE (MDF)	SP27305560	4.30	3.90	3.40	4.92	4.84	3.46	3.63
STOUR (WORCS)	MITFORD BRIDGE	SP26203730	5.62		5.32	4.76	5.36	5.36	
KNEE BK.	DITCHFORD FRIARY	SP23603770			11.98		6.78		
KNEE BK.	HIGH FURZE	SP25403760	8.12			7.21			
STOUR (WORCS)	SHIPSTON	SP26104040	14.69		17.04	12.48	14.30	11.27	14.71
STOUR (WORCS)	CLIFFORD CHAMBERS	SP19605290	14.08		17.05	11.33	12.34	9.84	14.59
MARCHFONT BK.	WESTON	SP16105156	0.35		0.71	0.73	0.31	0.73	0.60
ARROW	ALVECHURCH U/S WRW	SP03307180	3.54		3.53	3.69	3.75		4.00
ARROW	REDDITCH IPSLEY	SP06106640	13.39			12.59	11.27		12.84
ARROW	REDDITCH D/S IPSLEY	SP06506550			15.11				
ARROW	STUDLEY	SP07506370	16.07		16.36	13.20	14.64		17.71
ARROW	ALCESTER	SP09205780			35.78	26.95	38.83		30.55
ALNE	HENLEY IN ARDEN	SP15306530	4.92		5.28	2.53	3.89		
WOOTTON BK.	PETTIFORD BRIDGE	SP16106390	9.59		8.72	7.31	7.25		7.35

TABLE 3
LOW FLOW SURVEYS 1989, 1990 & 1991
AVON CATCHMENT—

RIVER NAME	LOCATION DESC.	NGR	25/07/89	07/08/89	24/08/89	28/07/90	06/08/90	17/09/90	03/09/91
ALNE	WOOTEN WAWEN	SP15506300	9.68		14.45	13.53	11.35		12.82
EDSTONE BK.	HERMITAGE BRIDGE	SP16906120	0.09		3.34	1.95	1.88		2.77
ALNE	GREAT ALNE U/S	SP13105950	20.05						
ALNE	GREAT ALNE	SP11805910				19.34	17.31		18.96
ALNE	HOO MILL	SP10605780			24.81				
ARROW	BROOM	SP08705330	60.31		54.06	72.07	57.88	56.66	68.01
CLAY BK.	BLACKMINSTER	SP07204420	0.69		0.69	0.43	0.00	0.83	0.86
BADSEY BK.	OFFENHAM	SP06304490	4.67		7.34	3.47		3.55	5.08
BADSEY BK.	OFFENHAM (MDF)	SP06304490	3.80	4.50	5.10	3.80	3.54	4.41	4.41
ISBOURNE	WINCHCOMBE	SP02802880	5.79		5.27	4.79	4.34	3.82	5.16
ISBOURNE	WORMINGTON	SP03703640	6.74		5.44	5.95	4.79	5.51	5.90
ISBOURNE	HINTON	SP02304080	7.52		7.95	5.50	6.01	5.57	7.92
ISBOURNE	HINTON (MDF)	SP02304080	5.40	6.00	6.00	5.36	4.32	4.15	7.00
AVON	HAMPTON PARKS	SP03304470	483.00		386.00	297.90	244.40	356.08	
PIDDLE BK.	WYRE PIDDLE	SO96204750	3.63		5.21	4.66	3.08	4.75	4.21
BOW BK.(TRIB.LB)	NORGROVE COURT	SP00606530							
BOW BK.	HAM GREEN	SP01406380		0.52	1.04				0.34
HUNT END BK.	HUNT END	SP03406380		0.35					0.53
HUNT END BK.	BUNKERS HOLE	SP02206270		0.52					
HUNT END BK.	BUNKERS HOLE	SP02006280			0.60				
BOW BK.	BUNKERS HOLE	SP01706280		1.30	1.64				0.79
BOW BK.	FECKENHAM	SP00506150	2.25		1.30			2.60	1.11
BOW BK.	B4090	SP00506130		1.47					
BRANDON BK.	SHURNOCK COURT B4090	SO02806090		0.35					0.54
BRANDON BK.(TRIB.RB)	ASTWOOD COURT	SP02906210		0.52					
BRANDON BK.(TRIB.RB)	B4090	SP02006110		0.60					
BRANDON BK.	BOW BK. U/S CONFL	SP00706020		0.86	0.60				
BOW BK.	PRIEST BDGE D/S WRW	SO99105990		3.28	3.80				5.27
BOW BK.	PRIEST BDGE	SO98905990	5.18					4.20	4.45
BOW BK.	SHELL	SO95105970	5.62		7.02			7.99	5.71
BOW BK.	BESFORD	SO92704630	5.27		8.41	4.14	3.35	5.62	
BOW BK.	BESFORD (MDF)	SO92704630	8.50	8.10	8.70	3.80	3.50	4.50	4.41
AVON	BREDON	SO92103730	298.00						
AVON	BREDON (MDF)	SO92103730	400.00	398.00	412.00	267.77	215.79	271.40	221.06
CARRANT BK.	MOTORWAY CULVERT	SP91803480							
CARRANT BK.	TEWKESBURY	SO89603300	2.42		2.68				
SWILGATE	TEWKESBURY	SO88903320	4.32		5.62			6.50	

TABLE 4
LOW FLOW SURVEYS 1989, 1990 & 1991
LOWER SEVERN AND GLOUCESTER CATCHMENT : FLOWS IN MLD

River Name	Location	NGR	27/07/89	08/08/89	12/09/89	11/10/89	03/08/90	06/08/90	14/09/90	17/09/91
CAREYS BK.(TRIB)	LEIGH SINTON	SO77905010		0.00						
CAREYS BK.(TRIB)	INTERFIELD	SO77804990		0.00						
CAREYS BK.	BASTONFORD	SO81205160		0.35						
CAREYS BK.	POWICK	SO83305070	0.17	0.78	3.51		0.62		0.83	
SEVERN	SAXONS LODE (MDF)	SO86303900	1151.00	1150.00	1182.00	1080.00	1135.21	1159.14	1117.92	1446.08
LONGDON BK.	LONGDON	SO83803680	4.84	3.97	5.05	5.30	2.83		2.76	
SEVERN	MYTHE	SO88803370				927.00				
SEVERN	HAW BRIDGE	SO84402790	1547.00	1558.00	1526.00	1181.00	1297.24		1420.03	
CHELT	SANDFORD	SO95402150	7.15	2.85	1.79		1.32		1.87	
CHELT	WITHY BRIDGE	SO90402460	3.77	3.02	4.30		2.95		2.91	
CHELT	SLATE MILL	SO89202640			29.94	17.66	28.52		17.01	
HATHERLEY BK.	LONGFORD	SO84102140	8.28	10.03	13.73		8.42		6.75	
HORSEBERE BK.	LONGFORD	SO84002120	1.98	0.60	0.66		0.85		0.87	
LEADON	LEDBURY	SO69803730		2.16	3.43		1.37		1.21	
GLYNCH BK.	CLENCHERS MILL	SO73203500		0.00	0.24					
GLYNCH BK.	PEPPER MILL	SO73703430			0.00					
GLYNCH BK.	MOTORWAY CULVERT M50	SO75603300		0.00	0.00					
GLYNCH BK.	STANBROOK FM.	SO77702800	1.47	0.86	1.41		1.06		1.31	
ELL BK.	CLEEVE MILL	SO73202620	1.64	2.16	3.66		3.83		3.69	
LEADON	WEDDERBURN	SO77602340	16.68	22.12	24.78	24.95	16.30		20.59	
LEADON	WEDDERBURN BR. (MDF)	SO77702340	21.60	21.00	24.50	25.60	21.17	19.69	21.68	23.16
SEVERN	GLOUCESTER OVER BDGE	SO81601960	234.00	464.00	498.00	487.00	573.74		333.77	
SEVERN	GLOUCESTER WESTGATE	SO82501910	1375.00	1172.00	1118.00	973.00	1178.82		953.59	
DIMORE BK.	QUEDGELEY	SO80001390	0.13		0.09					
FROME	CHALFORD	SO89200240		11.68	12.39		10.64		8.82	12.74
FROME	EBLEY	SO82800440	80.49	73.46	61.88	53.11	54.83		48.67	66.45
CINDERFORD BK.	CINDERFORD	SO65201080	0.17	1.12	1.43		1.24		0.99	
PLUMMERS BK.	SOILWELL	SO64600550		0.16						
PLUMMERS BK.	SOILWELL	SO64600550		0.32						
PLUMMERS BK.	U/S A48	SO65700460		0.31						

TABLE 5
LOW FLOW SURVEYS 1989, 1990 & 1991
UPPER TRENT CATCHMENT : FLOWS IN MLD

River Name	Location	NGR	05/07/89	28/07/89	26/09/89	02/08/90	14/08/90	11/09/91	17/09/91
TRENT	BROWN EDGE	SJ89685404		1.18					
TRENT	NORTON GREEN	SJ90115212		1.42					
SMALLTHORN BK.	FOXLEY BRIDGE	SJ89875010		1.97					
TRENT	STOKE	SJ89244671		8.94					
TRENT	STOKE (MDF)	SJ89244671	11.20	10.10	9.80	7.90	9.80	9.24	10.89
FOWLEA BK.	TUNSTALL	SJ85255062		0.35					
FOWLEA BK.	ETRURIA	SJ86604702		13.14					
LYME BK.	HANFORD	SJ86254280		12.47					
TRENT	STRONGFORD A34	SJ87303923		64.99					
TRENT	DARLASTON	SJ88543544		118.00	111.00				
TRENT	DARLASTON (MDF)	SJ88543544	148.00	130.00	136.00	133.00	120.00	117.79	138.15
SCOTCH BK.	STONE	SJ90803457		8.75					
GAYTON BK.	WESTON	SJ97412760		5.60					
TRENT	GREAT HAYWOOD	SJ99352308		198.00					
SOW	WALKMILL (MDF)	SJ79302980	6.20	3.80	3.60	3.20	3.30	2.42	3.11
BROCKTON BK.	BROCKTON	SJ82203125	2.33			1.24			1.33
SOW	ECCLESHALL	SJ83102955	14.34			12.60			6.81
MEECE BK.	STANDON	SJ82483503	4.49			1.19			
CHATCULL BK.	STANDON	SJ80703460	2.42			1.22			1.64
MEECE BK.	MILL MEECE	SJ83363320	13.39			5.83			2.61
MEECE	NORTON BRIDGE	SJ86833065							
MEECE BK.	SHALLOWFORD	SJ87502908	19.53			8.40			8.48
MEECE BK.	SHALLOWFORD (MDF)	SJ87502908	21.20	14.30	15.00	8.40	10.20	7.95	8.90
SOW	GREAT BRIDGEFORD	SJ88372693	43.89			25.01			25.81
SOW	GT.BRIDGEFORD (MDF)	SJ88372693	39.90	30.80	32.40	21.60	21.50	21.25	24.97
GAMESLEY BK.	SEIGHFORD	SJ87752545	1.38			0.72			
DOXEY BK.	DOXEY BRIDGE	SJ89852375	5.01			3.12			5.81
WROTTESLEY BK.	CODSALL	SJ87500415	2.51						
WROTTESLEY BK.	PENDEFORD	SJ89100350	8.21			10.24			9.39
SARENDON BK.	DEEPMORE FARM	SJ92710822	4.32			6.08			6.13
BREWOOD BK.	BREWOOD	SJ88750870	1.56			1.10			1.18
PENK	SOMERFORD BRIDGE	SJ89530925	32.57			27.35			26.60
DOLEY BK.	GNOSALL	SJ82792052	0.43			0.12			0.39
CHURCH EATON BK.	MITTON	SJ88541528	7.60			3.90			6.27
WHISTON BK.	MITTON MANOR	SJ88831474	2.42			3.20			3.17
BOSCOMBE BK.	PENKRIDGE	SJ92301425	4.41			3.78			4.80
PENK	PENKRIDGE	SJ92201445	48.73	45.19	45.91	39.18			41.85
PENK	ACTON TRUSSEL	SJ93351754	84.59			48.87			61.11
OLDACRE BK.	BROCTON (MDF)	SJ96102020	0.30	0.30	0.40	0.30	0.30	0.26	0.26
SOW	MILFORD	SJ97502155	202.00	144.00		153.09			159.01
BOURN BK.	COLTON	SK04722029		3.19					
SLITTING MILL BK.	SLITTING MILL	SK03481734		2.85					
BLITHE	UPPER LEIGH	SK00653615		7.68					
BLITHE	NEWTON HURST	SK04852590		11.73					

TABLE 5
LOW FLOW SURVEYS 1989, 1990 & 1991
UPPER TRENT CATCHMENT : FLOWS IN MLD

River Name	Location	NGR	05/07/89	28/07/89	26/09/89	02/08/90	14/08/90	11/09/91	17/09/91
TAD BK.	BAGOTS BROMLEY	SK06002595		1.62					
BLITHE	HAMSTALL RIDWARE	SK10901910		38.63					
TRENT	YOXALL	SK13231772		378.00	398.00	428.96			
BOURNE BK.	HANCH	SK10521378		4.84					
BOURNE BK.	WHITACRE	SP21709140					3.09	3.35	
SWARBOURNE	MEADOW LANE YOXALL	SK15201770		6.05	8.58				
PYFORD BK.	WOOD END	SK12971314		6.98					
TAME WILLENHALL ARM	WATERY LANE	SO95229920					0.61	0.23	
DARLASTON BK.	PORKETS BRIDGE	SO96659718					0.92	2.46	
TAME WILLENHALL ARM	JAMES BRIDGE	SO98889752					22.38	23.03	
TAME WILLENHALL ARM	JAMES BRIDGE (MDF)	SO98889752	82.20	100.00	59.10	84.50	35.10	39.17	18.73
TAME	M6 JUNCTN 9	SO99909640					14.90	28.56	
FORD BK.	RUSHALL	SK02600110					7.96	6.26	
FORD BK.	BROCKHURST	SP00509660					7.18	30.86	
TAME OLDBURY ARM	IZONS LANE	SO98989035					2.51	4.15	
TIPTON BK.	TOLL END U/S WRW	SO97569323					14.13	7.63	
TAME OLDBURY ARM	SHEEPWASH	SO97429220							
TAME OLDBURY ARM	PARK HILL	SP00109570					19.68	24.11	
TAME OLDBURY ARM	PARK HILL (MDF)	SP00109570	40.30	32.60	25.10	25.70	22.20	29.31	24.53
TAME	BESCOT	SP01209580					58.16	81.73	
TAME	BESCOT (MDF)	SP01209580	147.00	161.00	101.00	75.10	81.80	76.17	85.34
TAME	SANDWELL	SP02919262			135.00				
TAME	PERRY PARK	SP06009200					92.69	110.19	
TAME	PERRY PARK (MDF)	SP06009200	174.00	194.00	181.00	123.00	193.00	324.43	172.97
REA	CALTHORPE PARK	SP07088469					36.28	15.28	
REA	CALTHORPE PARK (MDF)	SP07088469	18.30	19.80	24.00	21.60	24.50	21.69	16.67
PLANTS BK.	PENNS LANE WALMLEY	SP12979312					5.18	4.89	
TAME	WATER ORTON	SP16949141					258.00	189.15	
COLE	MAJORS GREEN	SP09887733					0.88	1.61	
COLE	SPRINGFIELD	SP09958208					3.47	5.05	
KINGHURST BK.	CHELMSLEY WOOD	SP18038735					5.19	7.87	
COLE	BACONS END	SP18338747					8.24	25.08	
COLE	BACONS END (MDF)	SP18338747	17.50	16.10	15.70	12.10	19.30	15.98	16.33
BLYTHE	CHESWICK GREEN	SP12707540						0.86	
BLYTHE	BARSTON	SP20107750					5.09	5.24	
CUTTLE BK.	TEMPLE BALSALL	SP20507620					1.18	2.43	
TEMPLE BK.	TEMPLE BALSALL	SP20607620					1.02	0.95	
BLYTHE	PATRICK BRIDGE	SP21508130					19.34	15.21	
BLYTHE	CASTLE FARM	SP21258875			32.31		19.65	24.87	
BLYTHE	WHITACRE	SP21209100			16.99		25.66	30.26	
BLYTHE	WHITACRE (MDF)	SP21209100	30.10	30.50	27.60	27.50		21.91	19.05
TAME TOTAL FLOW	LEA MARSTON	SP20749374			663.00		627.00	766.07	
TAME TOTAL FLOW	LEA MARSTON (MDF)	SP20749374	702.00	607.00	615.00	594.00	601.00	631.33	641.26
LANGLEY BK.	MIDDLETON	SP17629810					3.11	8.17	

TABLE 5
LOW FLOW SURVEYS 1989, 1990 & 1991
UPPER TRENT CATCHMENT : FLOWS IN MLD

River Name	Location	NGR	05/07/89	28/07/89	26/09/89	02/08/90	14/08/90	11/09/91	17/09/91
CRANE BK.	CHESTERFIELD	SK1005057					6.35	10.39	
FOTHERLEY BK.	LITTLE ASTON	SP09200180					2.25	2.84	
FOTHERLEY BK.	SHENSTONE	SP10420460					10.13	15.78	
BLACK BK.	SHENSTONE	SK11550490					14.21	25.47	
BOURNE BK.	HINTS HALL BRIDGE	SK16080262			19.80		11.75	11.05	
ANKER	BRAMCOTE BRIDGE	SP41418881					3.40	2.92	
ANKER	A4254 NEW ROAD	SP38109160					10.70	12.48	
ANKER	LEATHER MILL FM.	SP33909550					21.94	21.29	
ANKER	ATHERSTONE A5	SP32529720					39.99	44.57	
SENCE	KELHAM BRIDGE	SK40581203					5.20	2.03	
SENCE	BILSTONE	SK36530515					5.60	4.54	
SENCE	RATCLIFFE CULEY	SP32159960					9.23	10.75	
PENMIRE BK.	GRENDON	SP27509968					1.05	1.23	
ANKER	POLESWORTH	SK26290342					70.84	76.12	
ANKER	POLESWORTH (MDF)	SK26290342	73.20	63.50	70.40	49.60	50.10	61.86	74.56
TAME	HOPWAS	SK18120520							
PACKINGTON BK.	PACKINGTON	SK35931442		2.97					
MEASE	MEASHAM	SK32701157		7.76	6.68				
HOOBOROUGH BK.	ACRESFORD	SK29911318		3.11					
MEASE	NETHERSEAL	SK28751276		14.14					
MEASE	STONES BRIDGE	SK26241144		15.29	17.38				
MEASE	HARLASTON	SK21501117		14.74					
TRENT	DRAKELOW	SK23902040			1395.00				
TRENT	DRAKELOW (MDF)	SK23902040	1287.00	1072.00	1010.00	933.00	968.00	1165.80	1270.43
DARKLANDS BK.	STANTON U/S WRW	SK26711925			1.01				
DARKLANDS BK.	DRAKELOW	SK24522012		9.49					

TABLE 6
LOW FLOW SURVEYS 1989 & 1990
DOVE AND CHURNET CATCHMENTS : FLOWS IN MLD

River Name	Location	NGR	19/07/89	08/08/89	12/09/89	05/10/89	24/07/90	16/08/90	18/09/90	22/08/91	04/09/91	09/09/91
DOVE	HOLLINSCLOUGH	SK06306680	4.04	2.90	2.12	2.57	3.96	3.58	3.00			3.14
DOVE	HARTINGTON	SK12056005	21.25	12.49	7.92	6.56	10.87	8.35	4.77			6.38
DOVE	IZAAK WALTON	SK14715092	70.83	51.74	46.47	42.62						
DOVE	IZAAK WALTON (MDF)	SK14715092	76.20	62.30	49.50	42.10	51.50	42.50	36.10	46.48	40.18	39.14
MANIFOLD	HULME END	SK10625958	12.06	5.62	7.15	7.15	12.03	8.29	7.68			9.26
HAMPS	WATERHOUSES	SK08445022	4.89	2.55	2.24	2.35	5.37	6.00	4.07			1.60
MANIFOLD	ILAM	SK13905075	67.48	38.47	45.39	39.02						
MANIFOLD	ILAM (MDF)	SK13905075	63.30	45.70	37.80	33.70	54.50	41.50	38.40	45.36	38.62	37.41
BRADBOURNE BK.	CALLOW	SK17224688	18.25	15.30	11.72	8.09	9.82	6.82	4.73			6.32
HENMORE BK.	CARSINGTON	SK23954995	1.90	1.09	1.93	2.26						
HENMORE BK.	CARSINGTON (MDF)	SK23954995	1.20	0.80	1.20			0.80				0.52
HENMORE BK.	ASHBOURNE	SK17674632	7.86	4.80	5.80	6.02	3.77	4.46	3.94			3.66
DOVE	ROCESTER	SK11253970	198.00	133.00	125.00	121.00			125.54			98.18
CHURNET	TITTESWORTH	SJ99235810	19.48	22.89	7.79		15.33	16.05	17.45	15.18	15.26	
CHURNET	BROADS BRIDGE	SJ97865716			19.34							
CHURNET	BRIDGE END	SJ97265718			12.23							
DINGLE BK.	COWHAY WOOD	SJ96195640			3.21							
CHURNET	LEEK A53 RD.BDGE	SJ97425529	20.83	23.93	15.65		23.20	13.42	26.01	29.71	15.28	
CHURNET	LEEK U/S WRW	SJ97855455			16.20							
LEEK BK.	LEEKBROOK	SJ98605395			0.71					1.14	0.59	
CHURNET	JOSHUA WARDLE	SJ98055372			33.33					33.85	32.36	
CHURNET	BASFORD BRIDGE	SJ98305190	52.44	47.17	46.64		35.86		36.24	34.81	34.29	
CHURNET	BASFORD BRIDGE (MDF)	SJ98305190	49.30	49.40	47.90	45.60	31.70	29.70	44.60	51.67	29.38	31.19
ENDON BK.	WALLGRANGE	SJ96595355	5.52	5.85	10.07		6.19	5.19	7.59	6.35	2.99	
CHURNET	FROGHALL	SK02684675			54.11					56.05	50.22	
CHURNET	CONSALL FORGE D/S	SK00084860			63.23					59.19	49.89	
CHURNET	OAKMOOR	SK05294440			67.16					75.34	57.07	
CHURNET	ALTON	SK07164255	118.00	89.98	84.34	82.06	77.07	70.79	69.66	75.24	60.69	
CHURNET	ROCESTER	SK10754000	99.95	93.83	86.51	79.55			54.59	77.41	58.06	
CHURNET	QUIXHILL	SK10104111			89.55					84.02	69.60	
TEAN	FOLE	SK04543713	17.39	13.29	16.37	14.35	5.77	5.50	4.86			9.51
TEAN	CHECKLEY	SK02813765	10.25	8.97	10.43	9.56	6.69	5.69	5.37			4.90
TEAN	UTTOXETER	SK09223484	38.93	23.73	40.18	27.55	35.09	24.30	24.07			16.81
MARCHINGTON BK.	MARCHINGTON	SK13583070	3.82	3.63	3.78	3.57	3.16	3.74	2.74			3.17
FOSTON BK.	FOSTON	SK18863190	5.20	4.99	5.03	3.60	3.91	4.09	2.84			3.00
DOVE	MARSTON	SK23612888	379.00	319.00	299.00	274.00			217.37			213.97
DOVE	MARSTON (MDF)	SK23612888	373.00	314.00	303.00	278.00	285.00	268.00	243.00	270.69	229.05	228.53
ROLLESTON BROOK	ROLLESTON (MDF)	SK13502880	10.90	8.10	8.60	7.60	13.10	12.30	11.00	11.92	11.15	10.37
BRAILSFORD BK.	ARDSLEY	SK22443805	12.12	8.00	9.95	5.10	9.74	9.50	8.21			7.27
SHIRLEY BK.	LONGFORD	SK21913785	9.75	10.21	11.42	8.80	8.36	9.14	8.80			
HILTON BK.	HILTON	SK24203055	22.22	19.55	23.41	21.91	22.17	24.36	19.66			14.71
DOVE	EGGINTON	SK26862705	264.00	196.00	249.00	144.00	150.55	187.36	173.14			187.62

TABLE 7
LOW FLOW SURVEYS 1989, 1990 & 1991
DERWENT CATCHMENT : FLOWS IN MLD

River Name	Location	NGR	27/06/89	26/07/89	07/09/89	27/09/89	17/10/89	26/07/90	15/08/90	07/09/90	21/08/91	18/09/91
DERWENT	YORKSHIRE BRIDGE	SK19808510	40.35	40.44	69.83	67.63	54.11	77.23			61.10	80.82
DERWENT	YORKSHIRE BR. (MDF)	SK19808510	40.30	39.70	76.00	70.40	57.70	75.80	76.40	78.50	64.71	83.89
NOE	EDALE U/S DIVERSION	SK14608575	46.57	13.65	9.97	8.85	20.44	15.60	11.96		20.12	12.39
NOE	HOPE D/S DIVERSION	SK16708470	25.23	23.67	23.04	22.95	17.82	21.09	23.54		19.98	18.20
NOE	SHATTON U/S CONFL.	SK20308260				30.18	25.75	34.08	34.25		34.25	27.37
NOE	STONEY MIDDLETON	SK23807530	4.58	3.80	2.27	2.09	1.60	2.53	2.06		2.94	2.11
BAR BK.	BASLOW	SK25807215	6.91	6.31	5.52	4.60	3.00	3.76	3.58			4.87
DERWENT	CHATSWORTH	SK25706580		118.97	131.26			156.99			130.91	149.48
DERWENT	CHATSWORTH (MDF)	SK25706580	192.00	142.00	139.00	131.00	126.00	136.00	142.00	142.30	130.38	135.22
DERWENT	ROWSLEY,U/S WYE CONF	SK25906570	144.20			123.62	104.54		138.00			
WYE	BUXTON U/S WRW	SK06507345					3.74	7.00	5.23	8.15	8.02	
WYE	BUXTON D/S WRW	SK08007250		23.75			15.80	21.45	15.91	22.31	20.59	
WYE	ASHWOOD DALE	SK08407250	58.15		20.93	13.90		25.65	17.60	25.05	26.58	16.94
WYE	WORMHILL SPRING U/S	SK12307350					10.47	19.74	14.98	28.82	18.90	
WYE	WORMHILL SPRING D/S	SK12407350					24.17	33.20	30.72	49.01	31.26	
WYE	MAGPIE SOUGH U/S	SK17906970					43.70	54.98	49.45		58.87	45.91
MAGPIE SOUGH	ASHFORD	SK18006960	27.39	32.75	29.89	29.67	30.38	29.81	23.12	22.86		30.28
WYE	ASHFORD	SK18206960	133.14	103.85	90.05	79.05	75.50	83.69	77.90	82.27	94.47	77.66
LATHKILL	ALPORT	SK22106440	13.56		6.40	4.79	3.50	4.34	2.97		3.47	1.69
BRADFORD	YOULGREAVE	SK20906400		7.55	0.99	2.10	1.14	1.43	1.30		0.76	0.19
LATHKILL	PICKERING WOOD	SK23906840	15.80		5.50	2.64	1.11	1.59	0.00		1.66	
WYE	ROWSLEY	SK23906840		131.59	110.83	96.53	90.32	122.87	98.83	91.17	116.10	95.33
HILLCARR SOUGH	ROWSLEY	SK25906390				29.67	25.46	30.14	15.77		22.10	25.58
BENTLEY BK.	MATLOCK	SK30105980	8.81	5.96	6.76	7.01	5.28	6.15	4.88		5.92	
DERWENT	MATLOCK BATH	SK29605860	350.78	335.66	293.03	276.75	248.96	299.49	281.20		289.33	278.77
MEERBROOK SOUGH	WHATSTANDWELL	SK33105480	4.06	8.91	14.06	12.33	4.35	14.34	9.57			
AMBER	WOOLEY MOOR	SK36706100	5.96	3.97	3.02	3.78	3.53	3.46	2.00		3.34	3.58
AMBER	HALLFIELD GATE	SK38605820	7.08	7.02	6.45	5.18	4.06	4.42	4.86		9.05	10.16
ALFRETON BK.	ALFRETON	SK41505700	20.13	15.55	17.16	10.61	19.01	14.58	12.56		20.05	29.65
ALFRETON BK.	TOADHOLE FURNACE	SK39005640	28.68	17.96	23.62	16.23	27.30	15.92	23.46		22.82	24.71
AMBER	WINGFIELD PARK (MDF)	SK37505200	50.70	33.20	31.40	29.70	31.20	28.80	46.70	26.30	35.51	32.83
AMBER	WINGFIELD PARK	SK37505200		27.97	32.43	27.29	29.41	26.80	32.56		44.62	37.13
HARTSHAY BK.	WINGFIELD PARK	SK37505180	5.26		4.58	4.16	4.92	5.33	8.16		4.89	6.95
AMBER	AMBERGATE	SK34705170	48.38	40.82	40.44	36.55	32.99	28.87	59.57		54.47	40.46
DERWENT	WHATSTANDWELL	SK33105440	419.13									
DERWENT	AMBERGATE	SK33805380	384.13	338.60	261.52	282.86	218.06	297.70	277.86		118.85	97.25
DERWENT	DUFFIELD	SK35104355	550.02	465.87	389.25	421.13		400.89	421.80		407.72	365.58
ECCLESBOURNE	IDRIDGEHAY	SK29004890	5.62	4.03	3.23	3.40	3.07	3.05	8.13		3.53	3.34
ECCLESBOURNE	PUSS IN BOOTS	SK32004470	11.66	9.57	8.93	9.63	8.66	9.51			8.54	7.41
BOTTLE BK.	LITTLE EATON	SK36404150	8.73	8.21	7.26	7.34	9.11	8.42	12.20		7.80	5.06
DERWENT	DARLEY ABBEY	SK35403820				326.75						
DERWENT	DERBY ST.MARYS	SK36103600	457.32	370.31	304.36	333.16	285.11	349.53	358.34		350.09	326.75
DERWENT	DERBY ST.MARYS (MDF)	SK36103600	493.00	377.00	333.00	342.00	296.00	351.00	400.00	344.00	352.15	344.88
MACKWORTH BK.	KIRK IRETON	SK28903900			0.11	0.10						
MACKWORTH BK.	KIRK LANGLEY	SK28953895	0.26	0.17								0.16
MARKEATON BK.	MARKEATON	SK33203820	11.32	8.64	8.18	8.64	17.12	8.34	7.57		2.10	7.04
DERWENT	DRAYCOTT	SK44503350	436.67	392.00	427.46	427.20	358.84	430.11	398.67		493.51	
DERWENT	CHURCH WILNE (MDF)	SK43803160	570.00	452.00	466.00	387.00	320.00	439.00	535.00	382.00	450.06	398.30

TABLE 8
LOW FLOW SURVEY 1989,1990,
SOAR CATCHMENT : FLOWS IN

River Name	Location	NGR	03/08/89
SOAR	SHARNFORD	SP47809190	2.85
SOAR	STONEY BRIDGE	SP50409300	6.39
ASTLEY BK.	BROUGHTON ASTLEY	SK52509260	3.02
THURLASTON BK.	HUNCOTE	SK51509740	10.54
SOAR	LITTLETHORPE	SP54109730	37.67
SOAR	LITTLETHORPE (MDF)	SP54109730	36.80
WHETSTONE BK.	WHETSTONE	SK55609710	1.43
SENCE	LITTLE STRETTON	SK66300020	0.78
FLECKNEY BK.	KIBWORTH BRIDGE	SP65909490	0.69
SENCE	WISTOW	SP62809560	4.41
COUNTESTHORPE BK.	COUNTESTHORPE	SP59409580	1.73
SENCE	SOUTH WIGSTON	SP58859770	21.29
SENCE	SOUTH WIGSTON (MDF)	SP58859770	15.80
HUMBERSTONE BK.	HUMBERSTONE PARK	SK61900505	3.18
KEYHAM BK.	BELGRAVE	SK60400730	0.54
SOAR	THURMASTON	SK60201110	26.61
WHISSENDINE BK.	STAPLEFORD PARK U/S	SK82501720	2.37
EYE(TRIB.)	SAXBY	SK82101940	3.39
EYE	BRENTINGBY	SK77401860	7.31
THORPE BK.	THORPE ARNOLD	SK76502015	1.60
SCALFORD BK.	SPINNEY FARM	SK76102170	2.74
KETTLEBY BK.	ASFORDBY	SK71701920	1.20
WREAKE	FRISBY	SK68601780	20.40
WREAKE	BROOKSBY	SK66901640	21.70
QUENIBOROUGH BK.	NEW QUENIBOROUGH	SK64301320	
WREAKE	GATE HANGS WELL	SK62301285	20.12
WREAKE	LEWIN BRIDGE	SK62251288	
WREAKE	SYSTON	SK61501240	36.12
ROTHLEY BK.	MERRYLEAS	SK47200560	
ROTHLEY BK.(TRIB)	DESFORD	SK47800420	0.00
ROTHLEY BK.(TRIB.)	KIRBY MUXLOE	SK52000510	7.77
ROTHLEY BK.	ANSTEY	SK56200990	13.82
ROTHLEY BK.	ROTHLEY	SK58101220	14.60
ROTHLEY BK.	ROTHLEY (MDF)	SK58101220	15.80
ROTHLEY BK.	A6 RD BRIDGE	SK59101340	16.45
LIN BK.	NEWTOWN LINFORD	SK51501020	1.43
QUORN BK.(TRIB.)	QUORN	SK55401680	0.62
SOAR	PILLINGS LOCK (MDF)	SK56501820	239.00
WOOD BK.	LOUGHBOROUGH U/S WRW	SK53102130	7.17
BLACKBROOK	ONE BARROW	SK46601700	0.78
GRACE DIEU BK.	BELTON	SK45902100	9.42
BLACKBROOK	SHEPSHED	SK48802080	10.80
KINGSTON BK.	KINGSTON ON SOAR	SK50302770	1.81
SOAR	RATCLIFFE FORD	SK49602930	314.00

1991
MLD

12/09/89	02/08/90	13/09/90	16/09/91
2.56	2.11	2.18	2.30
5.62	3.25	3.07	5.47
2.38	1.25	2.21	3.43
8.88	5.02	4.54	8.10
30.23	18.39	13.69	26.07
32.50	23.52	24.74	30.16
1.73			0.10
1.10	0.35	0.58	0.80
1.08	1.09	1.20	1.58
4.68	1.87	1.79	4.08
1.80	0.66	0.59	1.21
20.09	13.51	6.51	15.90
13.00	10.59	9.56	15.32
2.19	1.81	2.34	2.26
0.66	0.00	0.00	0.19
17.15	11.91	8.20	35.37
2.17	0.90	0.90	0.77
3.11	2.64	2.13	2.17
4.93	3.29	2.83	2.08
1.43	1.00	0.94	1.11
1.92	1.50	1.05	1.17
1.04	0.19	0.46	1.05
16.00	14.58	10.88	16.10
0.78	0.11		0.92
15.65			
22.01			
7.99	2.83	2.44	2.26
0.72	0.33	0.66	0.91
10.47	3.74	5.48	
21.04	8.50	9.81	36.26
20.40	10.00	9.58	11.47
20.80	9.94	10.19	20.05
21.96	10.46	10.70	
1.53		0.79	1.12
0.60	0.42	1.53	1.94
211.00	214.47	179.71	
14.33		2.28	12.91
0.79	0.67	0.28	0.54
6.05	4.43	11.46	12.36
7.82	6.29	14.44	14.68
1.45	2.56	0.69	1.81
284.00		211.44	297.00

TABLE 9
LOW FLOW SURVEYS 1989, 1990 & 1991
LOWER TRENT CATCHMENT: FLOWS IN MLD

River Name	Location	NGR	19/07/89	08/08/89	22/08/89	11/09/89	14/09/89	16/10/89	07/08/90	05/09/90	04/09/91	12/09/91
REPTON BK.	REPTON	SK30302730		4.92						5.46		
BREEDON BK.	BREEDON	SK41102320		0.00						0.16		
WILSON BK.	WILSON	SK40302440		0.00								
TRENT	SHARDLOW	SK44303030		1265.00						1244.67		
EREWASH	KIRKBY U/S WRW	SK49005490	1.04			0.92		0.86		1.39		1.66
EREWASH	PINXTON KIRKBY PK FM	SK46435470						12.10				
EREWASH	PINXTON U/S WRW	SK45605440		6.83		9.40				7.78		8.64
EREWASH	PYE BRIDGE	SK44315280						14.16				16.55
EREWASH	JACKSDALE	SK44355147						15.71				
EREWASH	PYE BRIDGE D/S ST/FD	SK44704960		24.80		17.88				12.54		
EREWASH	MILNHAY U/S WRW	SK45704660		3.97		4.22		5.64		1.20		3.49
EREWASH	GILTBROOK U/S WRW	SK46304550		15.38		14.47		19.98		9.72		
GILTBROOK	NEWTHORPE D/S WRW	SK47504440						13.78				16.93
EREWASH	ILKESTON	SK47334245						25.18				
EREWASH	HALLAM FIELDS U/S	SK47704050		37.76		30.39				19.01		
EREWASH	TROWELL	SK47764050						22.36				19.54
EREWASH	STANTON GATE	SK48403860						45.89				45.74
EREWASH	SANDIACRE	SK48303650		44.06		45.72		37.77		46.35		52.22
PASTURE LANE DYKE	SANDIACRE	SK48523505						7.15				
EREWASH	TOTON	SK50253422				59.43		39.33		54.32		49.27
EREWASH	TOTON U/S WRW OUTFLO	SK50753360		54.90								
TOTON WRW	OUTFALL (TOTAL FLOW)	SK50903370		16.03		13.28		20.39		13.23		
FAIRHAM BK.	CLIFTON	SK56003620		6.71						4.69		
LEEN	PAPPLEWICK LIDO U/S	SK54805012		9.32						7.14		
LEEN	BESTWOOD	SK54754750		8.52						15.22		
LEEN	BULWELL MARKET	SK54054505		12.18						9.05		
LEEN	VERNON RD	SK54954345		17.78						12.04		
DAY BK.	LEEN CONFL IMMED U/S	SK55204305		2.02								
LEEN	TRIUMPH RD	SK55003940		11.40		13.75				13.61		
TRENT	COLWICK	SK62003990		1744.00	1975.00					2309.45		
TRENT	COLWICK (MDF)	SK62003990	2273.00	2118.00	1972.00	2067.00	2217.00	1951.00	1866.00	1964.00	2032.73	2070.14
DOVER BECK	LOWDHAM	SK65274798		3.28						2.32		
DOVER BECK	LOWDHAM (MDF)	SK65274798	4.10	3.20	3.80	3.80	3.70	3.50	2.59	4.23	4.30	4.20
DOVER BECK	CAYTHORPE	SK68604560								3.73		
GREET (TRIB)	KIRKLINGTON	SK68505740										
GREET (TRIB)	KIRKLINGTON	SK67705730								3.94		
GREET (TRIB)	KIRKLINGTON	SK67705680										
GREET (TRIB)	KIRKLINGTON	SK68405700				3.76						
HALAM DUMBLE	MAYTHORNE	SK68705570				1.63						
GREET	MAYTHORNE	SK69705550								5.88		
GREET	SOUTHWELL	SK71555395		7.43		8.14				7.18		
HALLOUGHTON DUMBLE	ROLLESTON	SK73605240		2.59						0.84		
DEVON	WOOLSTHORPE	SK83603420		1.99		1.69				0.94		
DEVON	BOTTESFORD	SK80603900		1.73		1.51				0.71		

TABLE 9
LOW FLOW SURVEYS 1989, 1990 & 1991
LOWER TRENT CATCHMENT: FLOWS IN MLD

River Name	Location	NGR	19/07/89	08/08/89	22/08/89	11/09/89	14/09/89	16/10/89	07/08/90	05/09/90	04/09/91	12/09/91
SMITE	WHATTON	SK72853865		3.28		4.92				3.10		
WHIPLING	WHATTON	SK75203850		1.04		1.33				0.26		
DEVON	WENSOR BRIDGE	SK78654575	12.96	11.23	9.24	12.10			4.47	6.78		
CARR DYKE	ELSTON	SK77404840		6.22		7.45				8.10		
TRENT	NORTH MUSKHAM	SK80406060	2406.00	2211.00						2087.00		
TRENT	NORTH MUSKHAM (MDF)	SK80406060	2136.00	2106.00	1999.00	2049.00	2219.00	2073.00	2021.00	2022.00	2187.82	2149.46
NORWELL BECK	NORWELL	SK78106180		2.22								
GRASSTHORPE BECK	GRASSTHORPE	SK79706770		3.53						3.40		
LANEHAM BECK	LANEHAM	SK80207600		3.29						3.21		
MAUN	SUTTON FOREST SIDE	SK51005910	2.42		2.01		2.03		2.52		1.87	
MAUN	MANSFIELD WRW U/S	SK54806210	18.23		16.49		23.93		16.07		14.75	
MAUN	MANSFIELD WRW D/S	SK54706260	42.94		21.23		35.71		39.83		32.63	
MAUN	OLD CLIPSTONE	SK60206500	34.56		26.60		48.45		39.44			
VICAR WATER	OLD CLIPSTONE	SK60506480	0.26		0.20		0.17					
MAUN	BLACK HILLS FM.	SK63506680	30.33		27.53		54.02		22.67			
RAINWORTH WATER	OLLERTON	SK64906690	1.81		3.37		6.98		0.75			
MAUN	WHITEWATER	SK66207020	38.71		27.91		45.48		22.21		26.21	
MAUN	HAUGHTON	SK68307280	13.22		12.36		16.30		5.28	13.24	21.36	
BEVERCOTES DYKE	BEVERCOTES	SK69907280		0.00	1.95		3.61		2.59			
MAUN	WEST DRAYTON	SK71207420	12.36		12.32		15.07				21.44	
MEDEN	SKEGBY/TEVERSAL	SK49106170	0.35		0.23		2.99		0.20		0.31	
MEDEN	PLEASLEY	SK50506430			3.56		6.32					
MEDEN	PLEASLEY VALE	SK50906490	9.33		6.17		6.53		7.66		5.23	
MEDEN	SOOKHOLME	SK55006640	19.53		17.45		10.51		19.28		20.34	
MEDEN (TRIB)	SPION KOP	SK55606660	9.42		6.81		8.95		4.45		4.07	
MEDEN	WARSOP	SK55906800	29.46		26.27		20.93		30.87			
MEDEN	GLEADTHORPE	SK59707030	37.32		34.03		37.50		34.73		31.86	
MEDEN	PERLETHORPE	SK64907120	31.45		28.95		44.44		25.47		33.49	
MEDEN	BOTHAMSALL	SK68107330	42.08		41.56		63.93		51.13	49.52	32.83	
MEDEN	WEST DRAYTON	SK70307510	46.66		23.98		69.17		53.38		23.60	
POULTER	UPPER LANGWITH	SK52206970	2.59		1.58		1.81		1.55		1.30	
POULTER	LANGWITH MILL	SK54607029	10.80		10.47		9.39		11.67		10.70	
POULTER	CUCKNEY	SK56007120	19.96		16.23		10.90		14.02		25.53	
POULTER	GREAT LAKE U/S	SK57807230	16.93		15.61		20.31		14.34		17.49	
MILLWOOD BK.	SLOSWICKS FARM	SK55857535	9.42		6.81		8.95		7.99		8.23	
POULTER	CARBURTON	SK60707280	20.42		15.81		19.59		16.38			
POULTER	ELKESLEY	SK68507495	9.42		12.72		28.71		10.13		16.05	
POULTER	TWYFORD BRIDGE	SK69707510	11.15		12.78		31.96		13.56		15.73	
IDLE	GAMSTON BRIDGE	SK70807640	69.21		69.19		130.00		66.78		60.77	
IDLE	ORDSALL	SK70507960	83.50	73.27	69.80		122.00		70.49		56.43	
IDLE	CHAIN BRIDGE LANE	SK71308570	97.60	77.70	56.80		118.00		62.57			
IDLE	MATTERSEY	SK69008950	100.00		63.20		135.00		42.32	89.10		
IDLE	MATTERSEY (MDF)	SK69008950	84.20	73.70	79.20	104.00	147.00	123.00	49.77	76.18	65.10	55.93
IDLE	SCAFTWORTH	SK66309160	75.69		68.14				62.34			

TABLE 9
LOW FLOW SURVEYS 1989, 1990 & 1991
LOWER TRENT CATCHMENT: FLOWS IN MLD

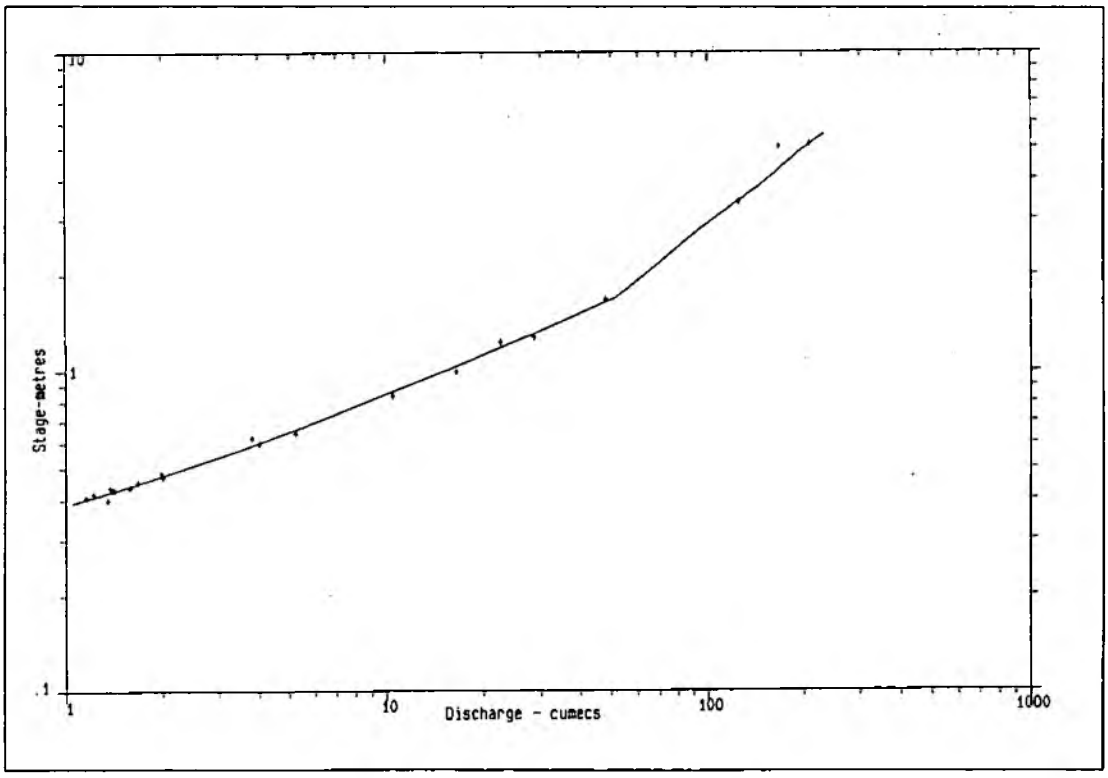
River Name	Location	NGR	19/07/89	08/08/89	22/08/89	11/09/89	14/09/89	16/10/89	07/08/90	05/09/90	04/09/91	12/09/91
RYTON	HARD BRIDGE	SK49508255	4.32		2.87		3.32		1.51		3.48	
RYTON	THORPE BRIDGE	SK51708230	2.68		2.24		2.09		1.00		1.30	
RYTON	ANSTON BRIDGE U/S	SK53608220	2.25		2.62		2.32				1.30	
RYTON	LINDRICK DALE	SK54008225	8.21						1.50			
ANSTON BK.	ANSTON STONES WOOD	SK53808280			6.54		5.48				6.18	
ANSTON BK.	LINDRICK DALE	SK54008240	4.67									
RYTON BK.	LINDRICK DALE	SK54008220			10.20		7.45					
RYTON	MONKS BRIDGE	SK54608220	4.06		3.06		7.39		1.67		1.61	
RYTON	SHIREOAKS	SK55708060	8.04		4.24		4.94		3.92		3.51	
RYTON	LADY LEE	SK56307940	8.81		5.14		6.72		6.58		5.07	
RYTON	WORKSOP U/S WRW	SK60407885					2.02		4.15			
RYTON	WORKSOP D/S WRW	SK60207890	18.84		25.28							
RYTON	SCOFTON D/S MNTN.WRW	SK63108030	25.40		25.95				17.05		19.30	
RYTON	SCOFTON FORD	SK63108035					27.07					
MALTBY DYKE	MALTBY WRW (D/S)	SK54009020	14.08		18.03		13.21		11.19		11.47	
HOOTON BK.	ROCHE ABBEY	SK53808940	2.94		3.15		3.06		1.70		3.54	
OLDCOATES DYKE	FIRBECK	SK56408930	14.77		10.52		10.02		8.67		9.47	
LAMBLANE DYKE	FIRBECK	SK56508850	1.38		1.83		1.56		1.14		1.10	
OLDCOATES DYKE	OLDCOATES	SK59408840	10.20		9.19		10.01		8.54		12.59	
HODSOCK BK.	BLYTH	SK61008690	5.62		4.83		8.29		5.07			
OLDCOATES DYKE	BLYTH	SK61508755	23.40		16.40		22.20		15.67		18.59	
RYTON	BLYTH	SK63108720	43.98		37.14		48.83		37.33	34.95	36.62	
RYTON	BLYTH (MDF)	SK63108720	29.00	26.40	22.30	42.70	46.40	47.80	26.44	33.00	30.51	40.10
RYTON	SERLBY PARK	SK63908970	45.96		34.21		51.89		29.45		32.85	
RYTON	SCROOBY	SK64859155	58.75		35.22		65.78		35.31			
IDLE	BAWTRY	SK65609320	164.00									
FLECKNEY BK.	KIBWORTH BRIDGE	SK65909490				1.08			1.09			
TORNE	STYRRUP	SK59309030		0.52					0.00			0.10
PAPERMILL DYKE	CLAYCROFT BRIDGE	SK57009250		1.52					0.90			
PAPERMILL DYKE	TICKHILL	SK58809280		6.54					5.43			4.42
TORNE	SPITAL HILL	SK60709320		12.67					10.70			11.64
TORNE	SHEEPWASH BRIDGE	SK61109410		13.16					11.36			9.62
COUNTESTHORPE BK.	COUNTESTHORPE	SK54909580				1.80			0.66			
WORMSWORTH BECK	SPRINGWELL LANE	SK56209940		3.20								
WORMSWORTH BECK	NEW INGS	SK58509820		9.94								
TORNE	ROSSINGTON BRIDGE	SK62959969		22.80					23.54			17.46
MOTHER DRAIN	ROSSINGTON BRIDGE	SK62959970		7.08					0.00			6.36
TORNE	AUCKLEY	SE64600120	37.80	31.40	25.70	32.00	31.40	29.10	25.34			26.74
TORNE	TORNE BRIDGE A614	SK67800345		27.97					20.03			

3. RIVER FLOW DATA

The primary source of information recorded at all of the 228 stations is water level, using a chart recorder activated by a float within a stilling well. In addition to the chart recorders, solid state TG1150 loggers interfaced to a shaft encoder have been installed at 164 sites. These loggers store values every 15 minutes and can hold data for up to the last 30 days in memory. These 15 minute values are collected daily via the telephone network using a minicomputer system based at Solihull.

For those sites where flows are processed, the levels are converted into flows using a stage-discharge curve. This may take the form of a theoretical relationship, derived for a particular type of structure or weir. At open channel sites, a curve is derived purely from a set of current meter gaugings taken at the site. Figure 2 shows the curve for the River Teme at Tenbury, an example of an open channel site. At both types of site, regular check gaugings by field staff are used to monitor the performance of the curve; this is achieved by plotting recent gaugings against the current stage-discharge curve. If a permanent shift in the rating is detected, then a new curve is derived and flows are recalculated.

FIGURE 2
STAGE-DISCHARGE CURVE FOR TENBURY



Producing accurate flow data can be particularly difficult during periods of exceptionally low water levels. Some station records are still being reassessed for this reason and must be regarded as provisional. These records have not been included within the tables or graphs in this report.

At an increasing number of sites, flows are measured directly using electromagnetic or ultrasonic methods. The principles behind these techniques are as follows:-

Ultrasonic

Pulses of ultrasound are transmitted diagonally backwards and forwards across the river, below water level. By measuring the difference in the times taken for the pulses to travel across the river, the component velocity of water can be calculated.

Electromagnetic

An electric current is passed through a multiturn coil buried beneath the river bed. The river, in passing over the coil, generates an electromotive force (emf) which can be measured; the emf is proportional to flow.

Flow data from these sites are stored in solid state TG1150 loggers, and collected in a similar manner to water levels.

Further information on the various types of river level and flow sites used by the Authority is listed in the catalogue section, Table 22.

3.1 MONTHLY MEAN FLOWS FOR SELECTED SITES.

Table 10 shows long term monthly mean flows for thirty stations throughout the region. The mean flow for 1991 is also given together with a percentage comparison with the long term average (LTA). Whilst the stations chosen are generally the more reliable ones at low flows, systematic errors are always greater at flow extremes and the data should be used with care. The figures are presented in megalitres per day (Ml/d), expressed to one decimal place although their accuracy is site dependent. The table has been split into the two main basins of the region, with the sites listed in downcatchment order.

3.2 ANNUAL HYDROGRAPHS AND FLOW DURATION CURVES.

Annual hydrographs, using mean daily flows, have been plotted for fifteen stations to demonstrate the flow variations throughout the year. These are shown in Figures 4 to 18. Flow duration curves for the sites are also shown comparing 1991 with the whole of the flow record.

Most of the catchments shown are affected to varying degrees by river regulation, abstraction and other artificial influences although the R.Dove to Izaak Walton is virtually natural and the R.Rea at Hookagate only slightly less so. The site locations are shown in Figure 3.

All the flow duration curves demonstrate the dryness of the year compared to the long term average flows. This is most noticeable at the sites in the Trent catchment, but also for Yeaton and Rodington in the Severn basin, where the frequency of low flows was higher than average. In contrast, for the sites within the Dove catchment , the frequency of high flows was above average due to the major flood event at the end of the year.

TABLE 10: MONTHLY MEAN FLOWS FOR 1991 COMPARED WITH LONG TERM AVERAGES

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
R Dulas at Rhos-y-Pentref	LTA	234.9	195.9	162.3	98.3	51.1	35.9	18.5	35.4	55.0	138.1	206.9	221.3	120.8
1970 to 1991	1991	265.4	152.5	200.8	169.7	43.1	22.4	17.9	19.6	25.7	117.5	313.6	191.5	128.0
Station no. 2025	%LTA	113	78	124	173	84	62	97	55	47	85	152	87	106
R Tanat at Llanyblodwel	LTA	1031.8	880.1	783.3	460.3	270.9	192.0	113.2	173.7	262.7	579.8	749.6	989.7	547.6
1974 to 1991	1991	1429.5	752.4	952.0	476.0	176.5	184.1	119.0	61.8	46.9	256.9	976.4	*	450.5
Station no. 2038	%LTA	139	85	122	103	65	96	105	36	18	44	130	*	82
R Perry at Yeaton	LTA	250.9	237.6	205.6	150.5	117.7	79.7	61.4	59.4	59.6	94.9	114.6	221.9	139.9
1964 to 1991	1991	287.0	146.7	267.9	105.4	76.2	50.1	41.0	35.2	30.2	40.2	80.8	62.6	102.0
Station no. 2020	%LTA	114	62	130	70	65	63	67	59	51	42	71	28	73
Rea Bk. at Hookagate	LTA	293.4	274.8	250.8	148.0	109.0	58.9	49.4	39.6	49.9	92.0	155.8	261.0	148.1
1963 to 1991	1991	424.6	186.6	320.1	129.5	75.4	42.9	48.8	39.2	29.9	35.8	176.8	106.5	134.7
Station no. 2018	%LTA	145	68	128	88	69	73	99	99	60	39	113	41	91
R Roden at Rodington	LTA	311.9	285.1	246.9	184.2	148.5	90.4	76.7	70.8	69.5	112.9	180.2	275.8	170.6
1961 to 1991	1991	359.0	162.1	310.8	115.7	82.4	57.1	51.3	40.1	32.4	41.3	71.8	59.1	115.4
Station no. 2016	%LTA	115	57	126	63	55	63	69	57	47	36	40	21	68
R Worfe at Burcote	LTA	164.2	161.1	144.5	125.4	89.0	71.0	50.6	54.3	55.0	70.6	92.4	127.1	100.1
1970 to 1991	1991	160.0	89.8	127.5	84.0	60.8	49.6	43.5	36.4	27.9	36.4	51.8	43.9	67.6
Station no. 2024	%LTA	97	56	88	67	68	70	86	67	51	52	56	35	68
Dowles Bk at Oak Cottage	LTA	70.6	67.8	60.8	38.6	25.5	16.1	7.5	5.5	10.3	17.2	22.9	55.4	33.1
1972 to 1991	1991	77.8	33.6	85.2	23.8	15.0	7.2	6.3	3.9	2.9	3.8	13.5	8.5	23.5
Station no. 2034	%LTA	110	50	140	62	59	45	84	71	28	22	59	15	71
R Severn at Bewdley GS	LTA	9948.7	8859.4	6481.5	4601.2	3311.9	2530.3	1975.7	2402.8	3113.4	4679.5	7777.2	8722.2	5350.1
1922to 1991	1991	12714.2	5764.8	9525.9	5111.5	2285.7	1543.2	1417.5	1618.5	1128.6	2415.8	7810.5	5321.4	4721.9
Station no. 2001	%LTA	128	65	147	111	69	61	72	67	36	52	100	61	88
R Stour at Kidderminster	LTA	320.4	300.8	286.6	248.6	224.4	208.1	192.1	200.8	199.9	218.3	253.1	296.8	245.6
1954 to 1991	1991	331.8	226.6	262.5	216.9	150.8	154.0	175.7	131.4	132.4	142.9	200.3	147.9	189.3
Station no. 2167	%LTA	104	75	92	87	67	74	91	65	66	65	79	50	77
R Teme at Tenbury	LTA	2477.0	2191.8	1873.0	1279.3	882.3	513.0	352.9	342.4	499.7	940.3	1436.1	2115.0	1238.1
1957 to 1991	1991	3271.4	1373.0	3014.0	1096.6	635.0	353.6	333.8	267.6	179.5	371.1	1376.6	794.6	1090.3
Station no. 2008	%LTA	132	63	161	86	72	69	95	78	36	39	96	38	88
R Avon at Stareton	LTA	386.2	388.0	359.0	242.5	174.8	118.6	86.3	88.0	84.1	132.5	202.1	229.2	216.1
1963 to 1991	1991	362.2	224.1	226.5	124.5	98.2	83.9	102.4	58.8	57.9	60.4	120.2	87.0	136.9
Station no. 2019	%LTA	94	58	63	51	56	71	119	67	69	46	59	38	63
R Sowe at Stoneleigh	LTA	377.0	375.4	318.5	260.1	224.1	200.8	167.5	174.7	172.3	208.0	262.7	335.3	255.8
1953 to 1991	1991	460.4	226.4	316.0	222.5	173.3	185.0	232.8	137.4	200.2	156.7	196.7	145.8	224.4
Station no. 2004	%LTA	122	60	99	86	77	92	139	79	116	75	75	43	88
R Avon at Evesham	LTA	2445.6	2403.1	1944.6	1310.4	981.3	749.0	570.1	580.8	578.7	802.1	1475.5	1931.5	1309.5
1963 to 1991	1991	2583.9	1251.0	1909.1	869.2	756.4	651.5	732.4	504.6	541.6	470.3	780.6	499.7	962.9
Station no. 2019	%LTA	106	52	98	66	77	87	128	87	94	59	53	26	74
R Severn at Haw Bridge	LTA	17569.1	16651.2	13903.6	9273.2	5772.4	4461.9	2836.0	3415.0	3749.0	6916.0	10329.2	14861.0	9112.4
1972 to 1991	1991	23685.1	10790.8	19029.6	9136.1	5373.0	3590.0	3294.0	3137.5	2359.6	4402.2	12056.0	7949.8	8738.1
Station no. 2057	%LTA	135	65	137	99	93	80	116	92	63	64	117	53	96

All Flows in Ml/d.

* Flat Vee Weir Under Construction

TABLE 10: MONTHLY MEAN FLOWS FOR 1991 COMPARED WITH LONG TERM AVERAGES

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
R Trent at Stoke	LTA	97.8	80.5	71.0	57.6	39.7	35.7	26.6	37.1	30.2	44.8	74.8	86.1	56.7
1969 to 1991	1991	77.1	37.5	51.7	25.4	16.4	27.8	27.9	12.5	11.5	16.2	37.7	80.9	35.3
Station no. 4040	%LTA	79	47	73	44	41	78	105	34	38	36	50	94	62
R Tame at Bascot	LTA	284.3	262.7	230.7	273.6	199.1	204.9	194.3	194.3	169.8	193.0	227.9	254.6	223.9
1983 to 1991	1991	227.4	172.8	206.3	192.2	120.3	128.1	179.0	146.8	128.1	123.7	165.5	117.3	163.2
Station no. 4081	%LTA	80	66	89	70	60	63	92	76	75	64	73	46	73
R Rea at Calthorpe Park	LTA	103.5	91.8	88.2	69.3	57.8	57.1	45.8	54.8	52.2	58.2	72.9	93.2	70.3
1968 to 1991	1991	132.4	75.0	87.1	70.8	32.9	42.4	67.0	24.8	43.6	41.8	65.1	32.8	59.6
Station no. 4039	%LTA	128	82	99	102	57	74	146	45	84	72	89	35	85
R Cole at Coleshill	LTA	127.8	123.7	110.2	81.9	64.9	64.1	44.8	50.4	52.0	64.7	82.4	119.0	82.0
1974 to 1991	1991	151.1	77.4	105.4	72.4	39.1	56.6	79.0	28.4	52.3	39.7	88.7	31.5	68.4
Station no. 4066	%LTA	118	63	96	88	60	88	176	56	101	61	108	26	83
R Trent at Drakelow	LTA	4699.1	4553.2	3914.1	3132.0	2731.4	2372.9	1975.1	2056.6	1890.9	2241.9	2957.3	3865.0	3025.9
1967 to 1991	1991	5102.4	2858.2	3519.5	2365.0	1850.0	1991.5	2123.7	1662.4	1530.1	1443.2	2440.0	1988.3	2406.0
Station no. 4019	%LTA	109	63	112	87	78	101	103	88	68	49	63	51	80
R Dove at Izaak Walton	LTA	272.1	265.8	245.1	202.7	140.1	110.6	86.0	84.1	80.9	117.5	182.0	227.4	167.4
1970 to 1991	1991	273.3	178.7	202.4	150.0	97.7	79.4	64.9	49.8	38.3	42.8	138.2	227.0	128.4
Station no. 4046	%LTA	100	67	83	74	70	72	75	59	47	36	76	100	77
R Manifold at Ilam	LTA	534.7	441.8	428.9	316.0	199.6	161.1	122.5	154.1	141.6	246.6	422.1	470.4	302.7
1969 to 1991	1991	471.3	282.1	355.9	196.8	96.3	93.8	67.5	49.6	39.9	61.8	322.1	538.3	214.6
Station no. 4031	%LTA	88	64	83	62	48	58	55	32	28	25	76	114	71
R Dove at Marston	LTA	2012.1	1815.8	1533.5	1248.6	976.8	728.1	581.2	607.4	597.4	930.4	1413.9	1746.3	1179.9
1966 to 1991	1991	1814.5	1025.1	1335.8	804.0	515.9	489.1	367.7	282.2	239.8	278.2	839.4	1594.1	803.3
Station no. 4018	%LTA	90	56	87	64	53	67	63	46	40	30	59	91	68
R Derwent at Matlock	LTA	1904.4	1674.1	1511.3	1244.4	822.9	589.1	481.4	462.6	569.2	848.3	1234.9	1702.7	1084.6
1959 to 1991	1991	2093.6	1026.2	1246.6	806.3	457.6	367.9	310.8	264.1	252.2	314.7	875.1	1609.5	802.7
Station no. 4011	%LTA	110	61	82	65	56	62	65	57	44	37	71	95	74
R Amber at Wingfield Park	LTA	195.1	197.2	167.7	126.8	83.2	72.0	50.1	49.6	46.1	75.3	103.3	169.7	111.0
1972 to 1991	1991	214.7	128.0	147.4	88.8	54.4	54.3	47.1	36.4	37.8	39.7	66.6	106.4	85.8
Station no. 4048	%LTA	110	65	88	70	65	75	94	73	82	53	64	63	77
R Derwent at Dby St Marys	LTA	2896.3	2225.6	1988.4	1743.7	694.9	778.6	579.5	547.2	563.9	955.6	1164.4	2141.1	1353.3
1936 to 1991	1991	2711.5	1334.8	1673.7	1025.2	590.4	517.3	453.1	352.9	381.3	376.2	938.2	1805.0	1013.9
Station no. 4085	%LTA	94	60	84	59	85	66	78	64	68	39	81	84	75
R Soar at Littlethorpe	LTA	234.0	191.2	146.5	132.3	83.7	72.3	43.4	42.6	41.0	63.4	107.0	171.2	110.4
1972 to 1991	1991	246.6	143.4	134.3	86.1	64.2	50.1	54.2	31.6	36.3	36.7	65.3	47.8	82.8
Station no. 4082	%LTA	105	75	92	65	77	69	125	74	88	58	61	28	75
R Sence at Sth Wigston	LTA	169.8	126.9	104.0	90.6	32.9	39.5	21.0	22.2	17.7	34.0	72.6	128.3	71.4
1972 to 1991	1991	207.9	110.3	93.9	43.6	32.0	29.0	21.3	15.4	22.3	19.6	53.6	36.5	56.9
Station no. 4086	%LTA	122	87	90	48	97	73	101	69	126	58	74	28	80
R Wreake at Syston	LTA	486.1	518.2	410.4	298.2	179.3	98.0	77.8	72.0	66.8	113.9	190.9	362.7	239.3
1968 to 1991	1991	492.1	408.7	303.1	99.8	74.3	68.6	65.5	44.7	59.1	58.2	114.3	128.2	158.5
Station no. 4024	%LTA	101	79	74	33	41	70	84	62	88	51	60	35	66
Rothley Bk at Rothley	LTA	114.5	131.1	113.0	77.8	54.5	40.0	26.6	29.0	26.1	43.2	48.4	93.8	66.2
1974 to 1991	1991	140.3	78.1	78.5	47.6	36.2	28.5	20.7	16.9	21.7	21.5	41.1	34.5	47.0
Station no. 4056	%LTA	123	60	69	61	66	71	78	58	83	50	85	37	71
R Trent at Colwick	LTA	12128.0	11404.2	9684.2	8004.7	6006.5	4694.5	3837.0	3964.0	4138.8	5384.3	7507.5	10517.3	7254.5
1959 to 1991	1991	12798.0	6887.3	8411.9	5062.6	3667.2	3486.3	3272.7	3605.5	2581.5	2524.2	4797.9	6029.3	5176.1
Station no. 4009	%LTA	106	60	87	63	61	74	85	91	62	47	64	57	71

All Flows in Ml/d.

FIGURE 3.

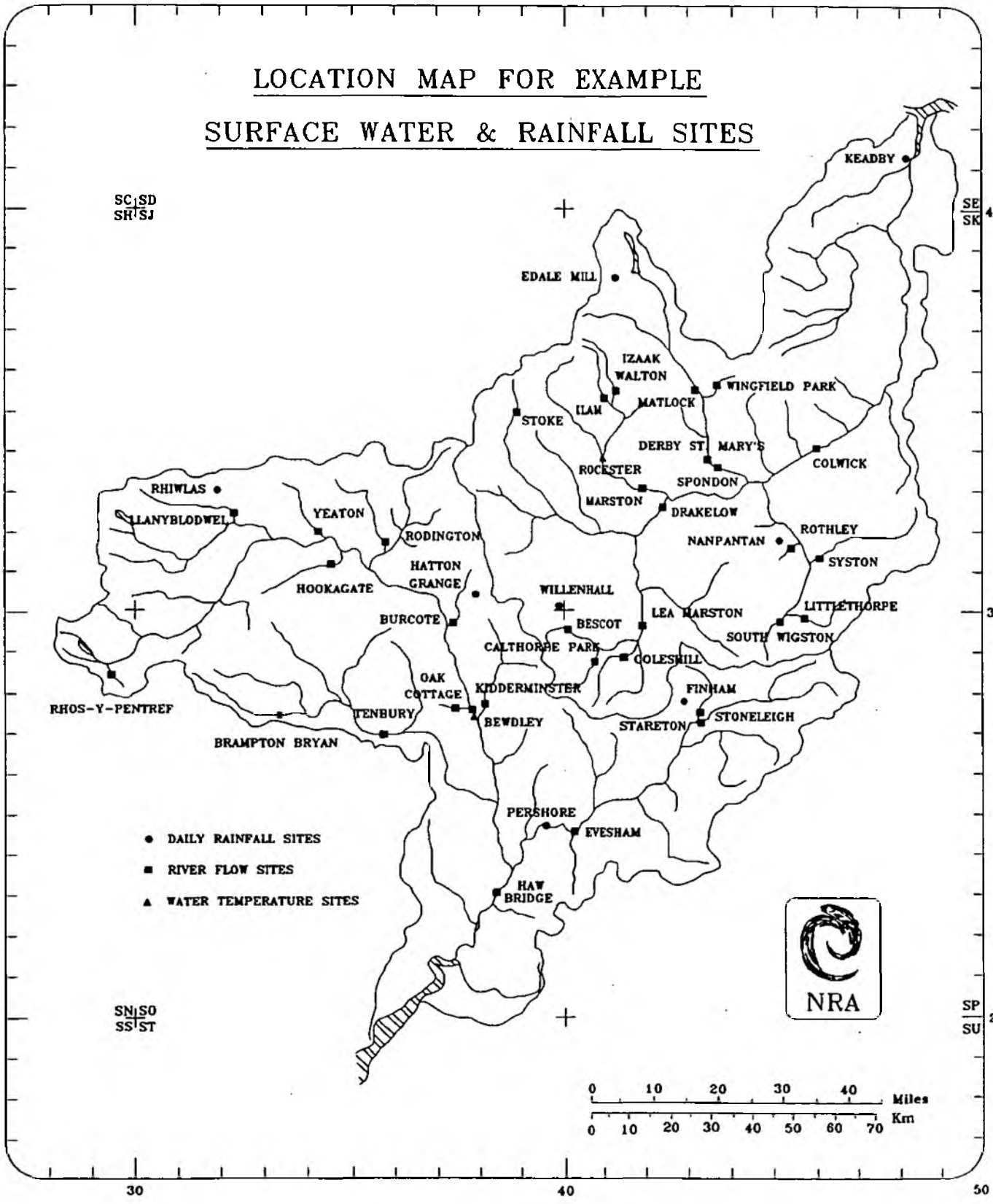
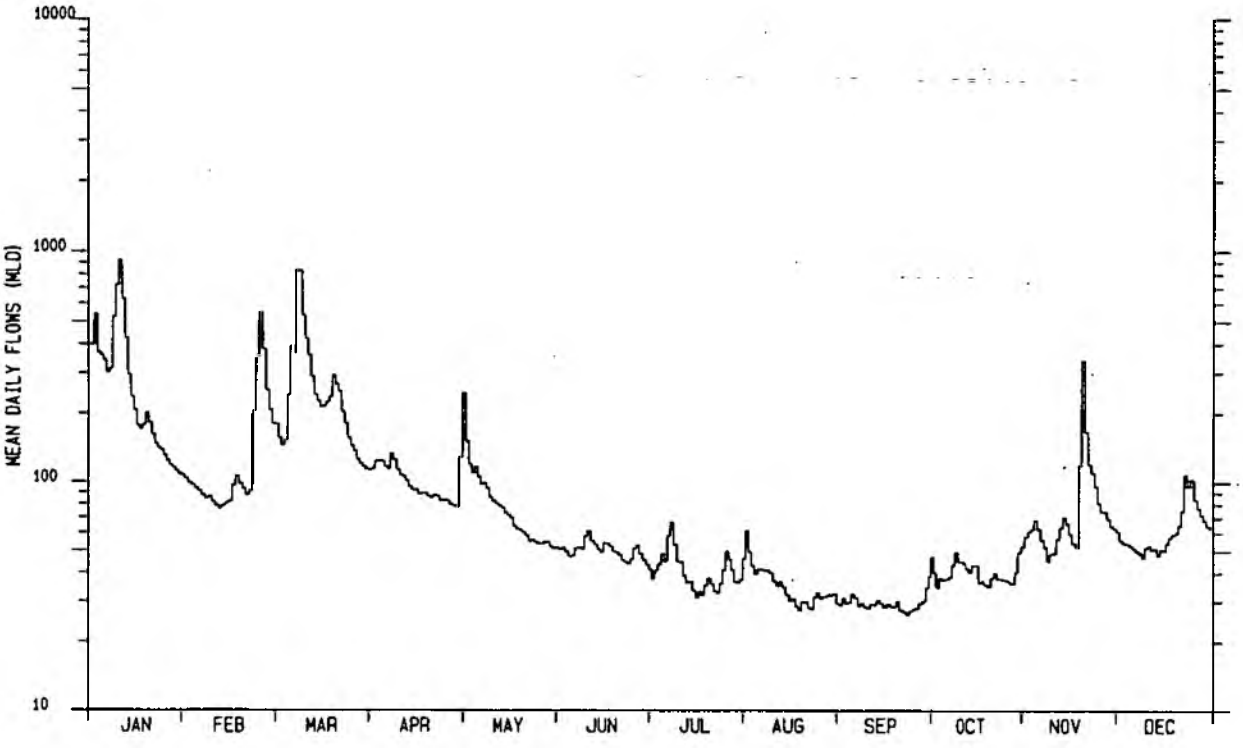
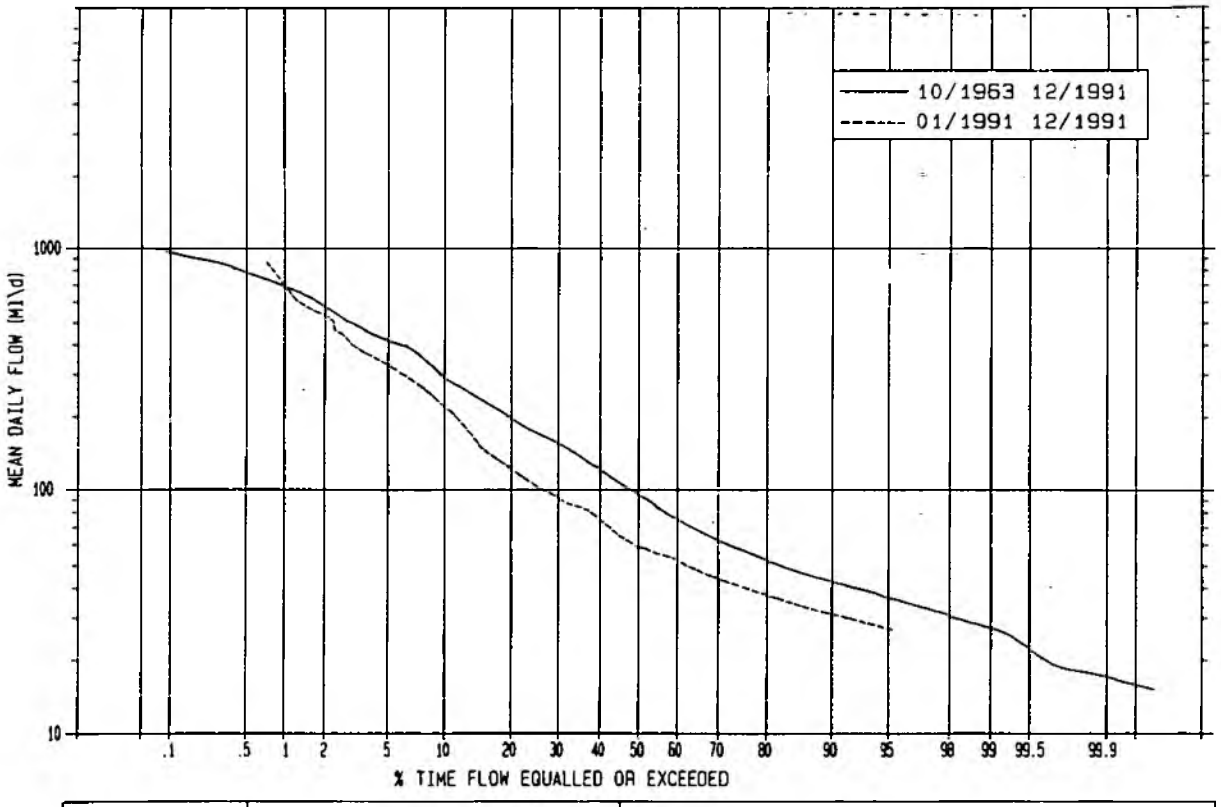

LOCATION MAP FOR EXAMPLE
SURFACE WATER & RAINFALL SITES
SC SD
SH SJ
SE
SK
40
KEADBY
EDALE MILL
IZAAK
WALTON
WINGFIELD PARK
MATLOCK
ILAM
STOKE
DERBY ST. MARY'S
COLWICK
ROCESTER
SPONDON
MARSTON
DRAKELOW
RHIWLAS
LLANYBLODWEL
YEATON
RODINGTON
NANPANTAN
ROTHLEY
SYSTON
HATTON
GRANGE
HOOKAGATE
WILLENHALL
LEA MARSTON
LITTLETHORPE
BURCOTE
BESCOT
SOUTH WIGSTON
CALTHORPE PARK
COLESHILL
OAK
COTTAGE
KIDDERMINSTER
FINHAM
RHOS-Y-PENTREF
TENBURY
BEWDLEY
STARETON
STONELEIGH
BRAMPTON BRYAN
PERSHORE
EVESHAM
HAW
BRIDGE
DAILY RAINFALL SITES
RIVER FLOW SITES
WATER TEMPERATURE SITES
NRA
SN SO
SS ST
SP
SU
20
30
0 10 20 30 40 Miles
0 10 20 30 40 50 60 70 Km
30
40
50

FIGURE 4

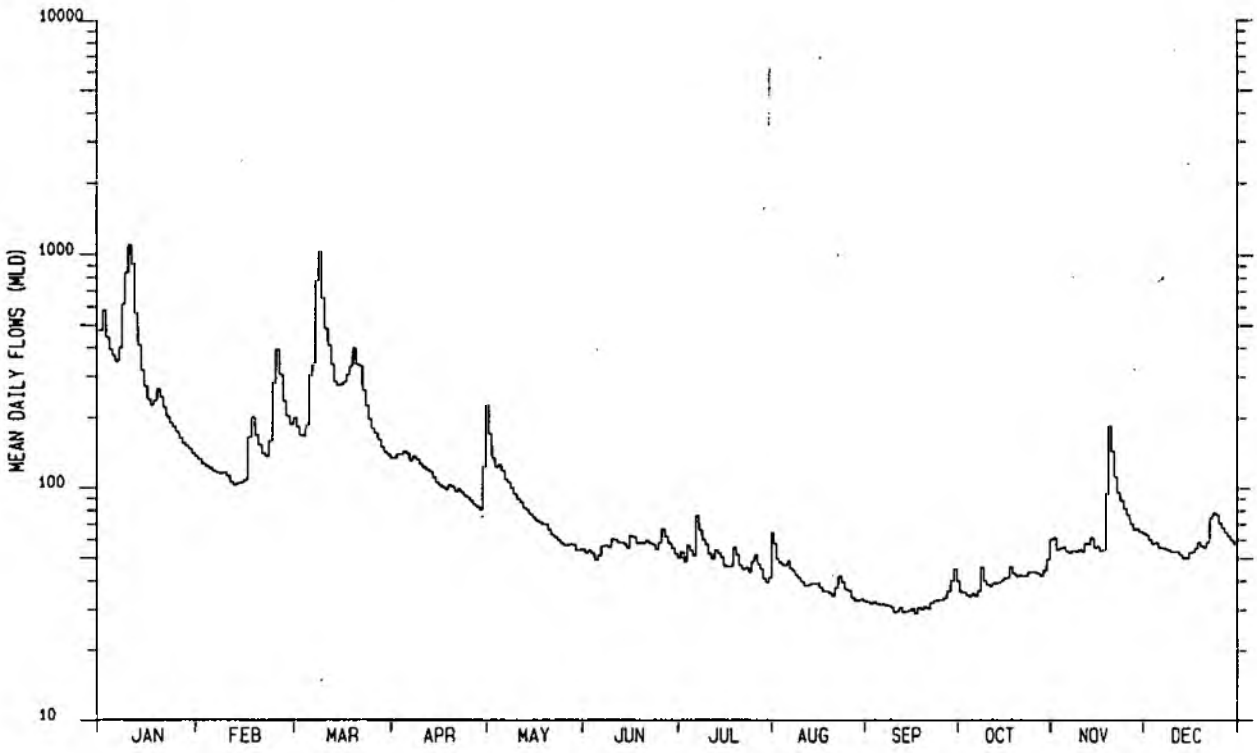


NRA	SEVERN TRENT REGION WATER RESOURCES	ANNUAL HYDROGRAPH OF MEAN DAILY FLOWS	
		R. PERRY AT YEATON for 1991	Stn.No: 2020

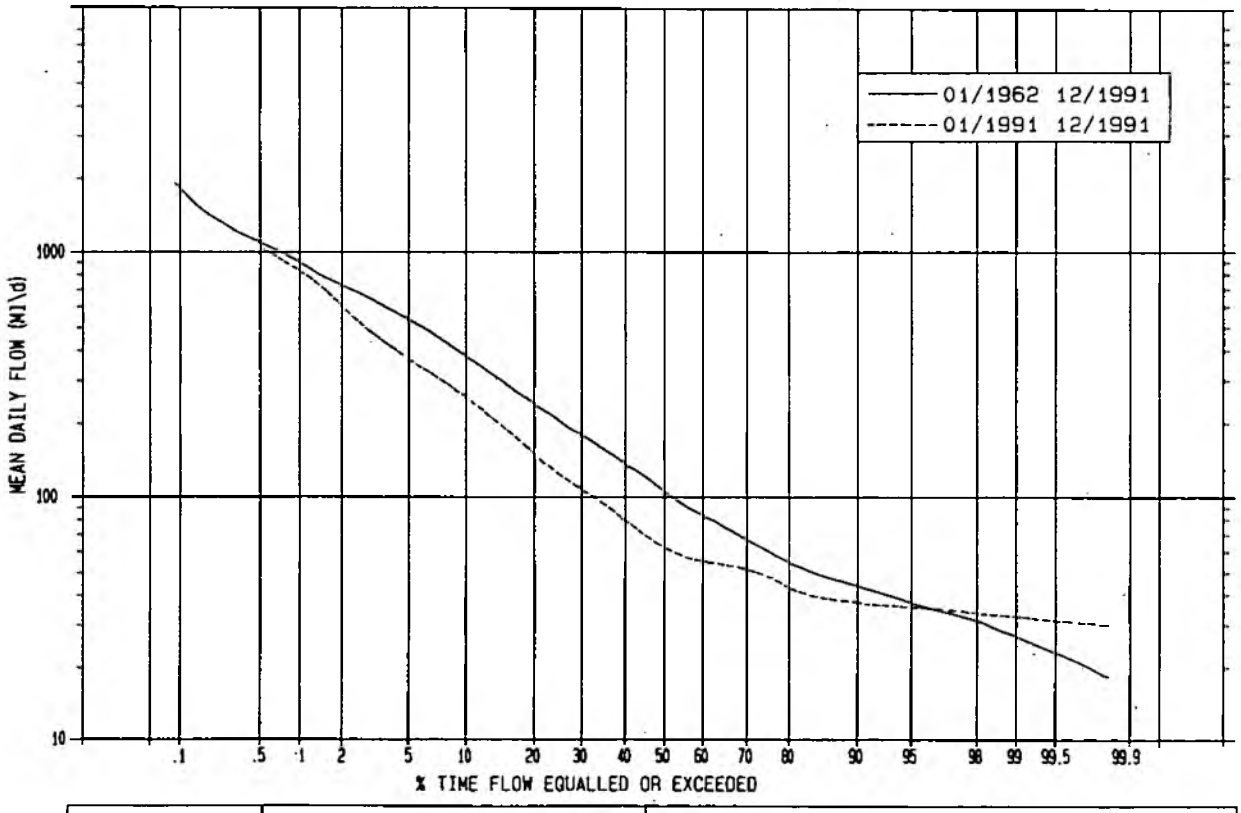


NRA	SEVERN TRENT REGION WATER RESOURCES	FLOW DURATION CURVE OF MEAN DAILY FLOWS	
		R. PERRY AT YEATON	Stn.No: 2020

FIGURE 5

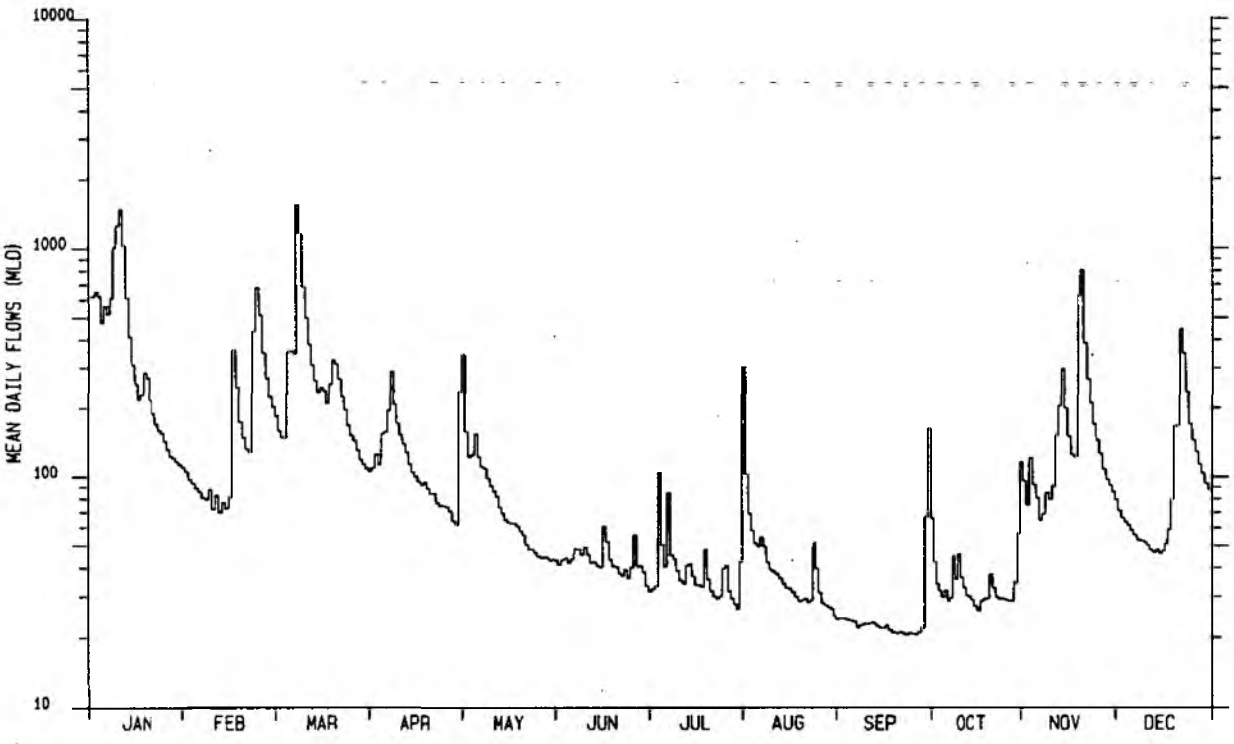


NRA	SEVERN TRENT REGION WATER RESOURCES	ANNUAL HYDROGRAPH OF MEAN DAILY FLOWS	
		R. RODEN AT RODINGTON for 1991	Stn.No: 2016

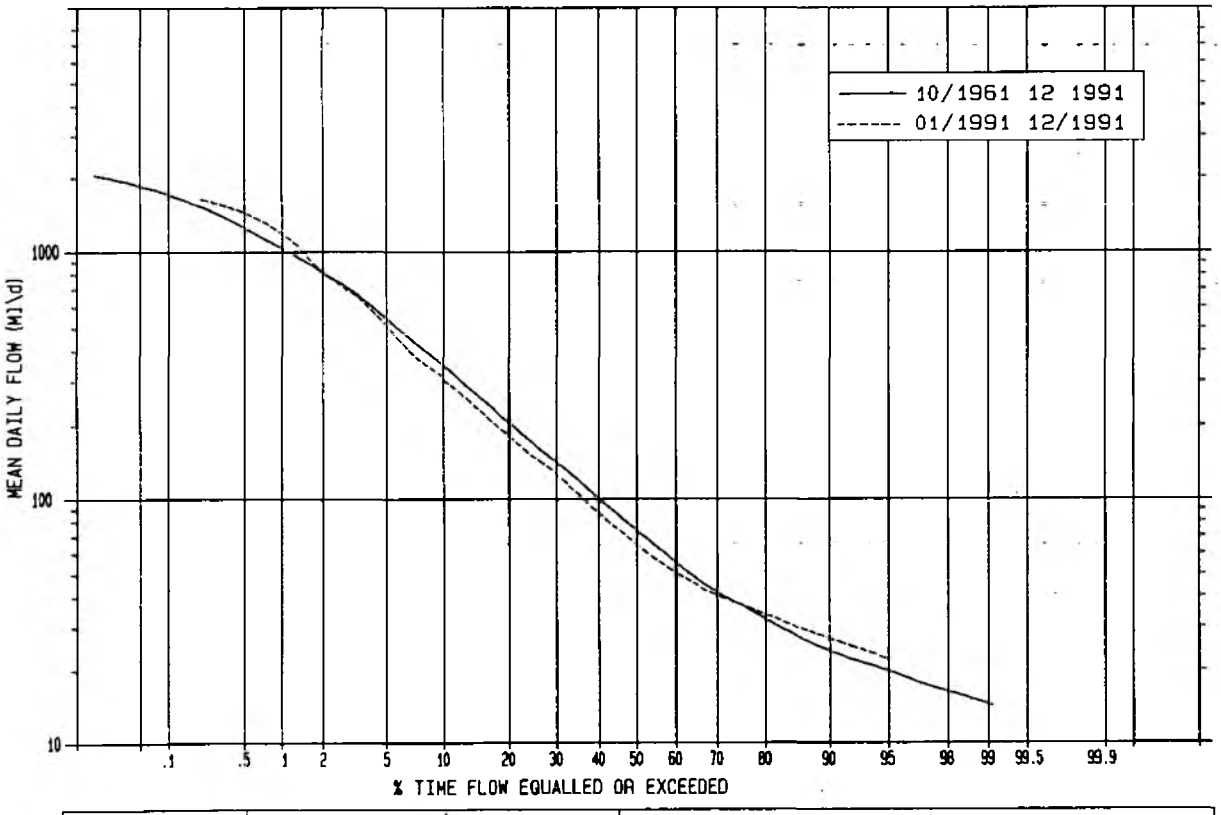


NRA	SEVERN TRENT REGION WATER RESOURCES	FLOW DURATION CURVE OF MEAN DAILY FLOWS	
		R. RODEN AT RODINGTON	Stn.No: 2016

FIGURE 6

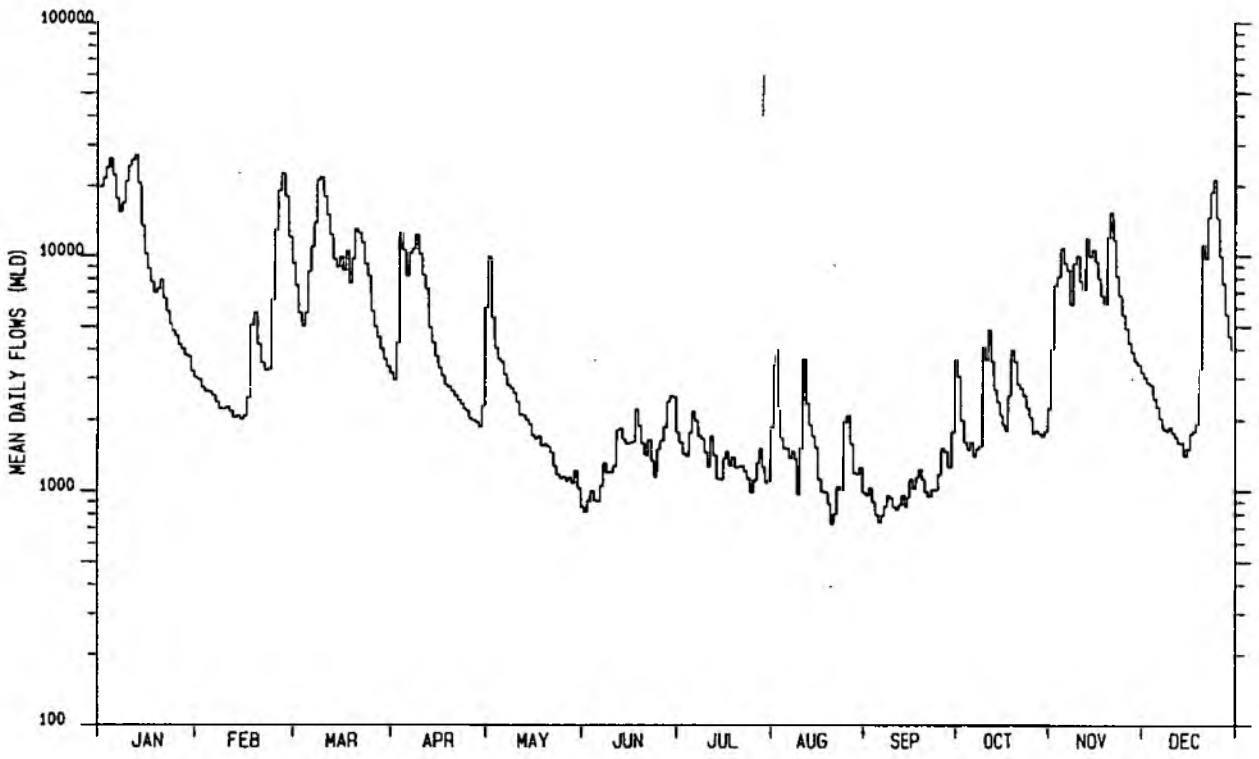


NRA	SEVERN TRENT REGION WATER RESOURCES	ANNUAL HYDROGRAPH OF MEAN DAILY FLOWS	
		R. REA AT HOOKAGATE for 1991	Stn.No: 2018

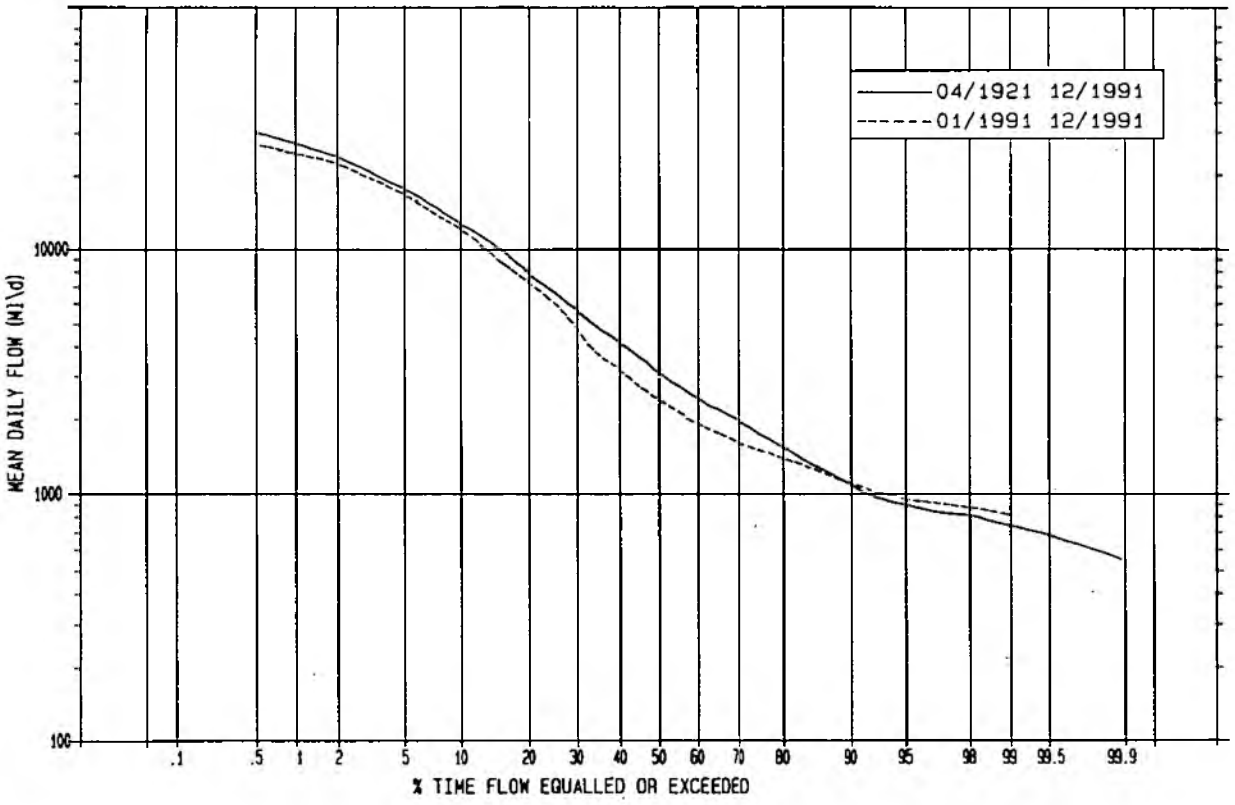


NRA	SEVERN TRENT REGION WATER RESOURCES	FLOW DURATION CURVE OF MEAN DAILY FLOWS	
		R. REA AT HOOKAGATE	Stn.No: 2018

FIGURE 7

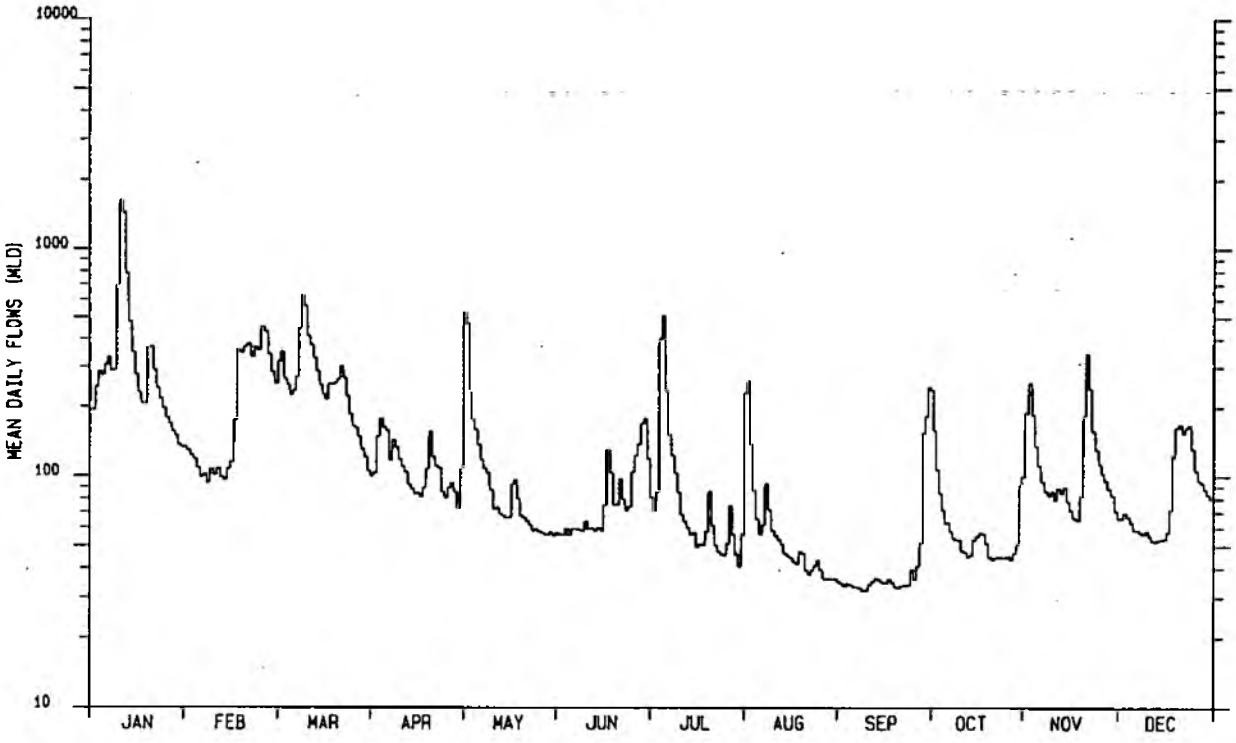


NRA	SEVERN TRENT REGION WATER RESOURCES	ANNUAL HYDROGRAPH OF MEAN DAILY FLOWS	
		R. SEVERN AT BEWDLEY for 1991	Stn.No: 2001

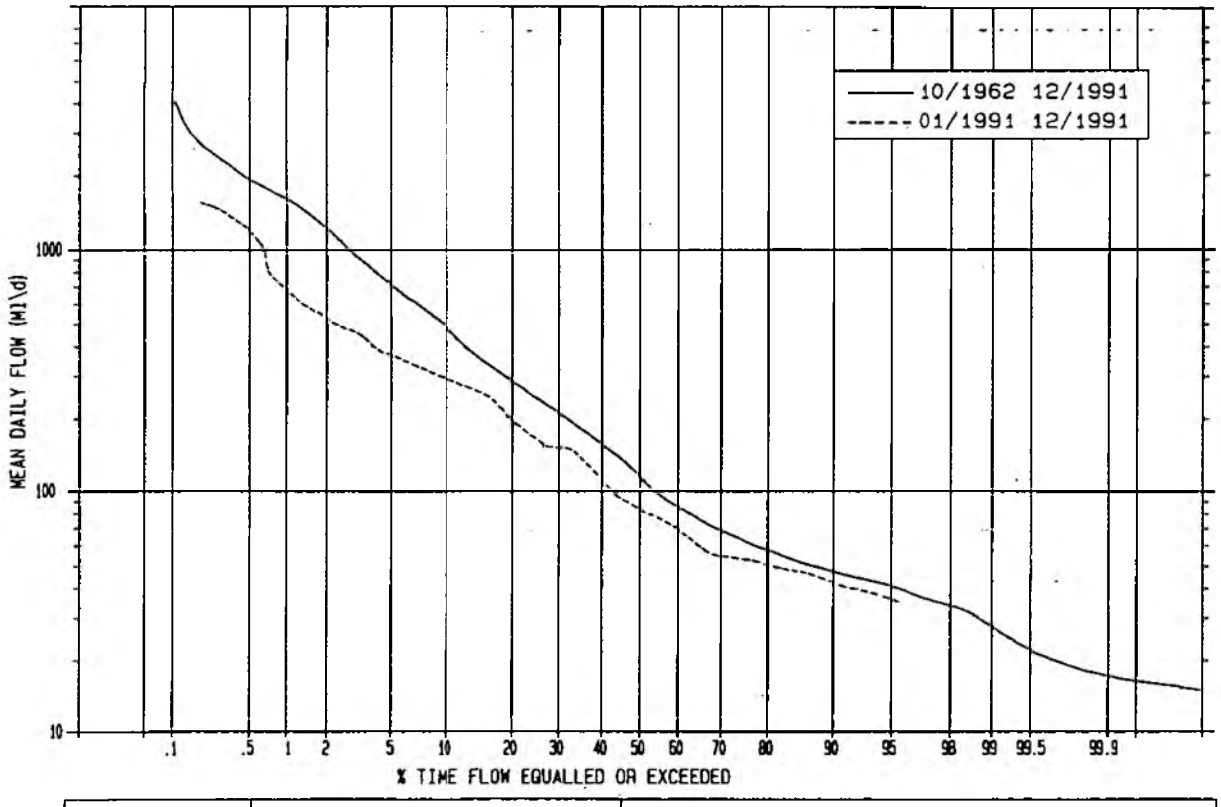


NRA	SEVERN TRENT REGION WATER RESOURCES	FLOW DURATION CURVE OF MEAN DAILY FLOWS	
		R. SEVERN AT BEWDLEY	Stn.No: 2001

FIGURE 8

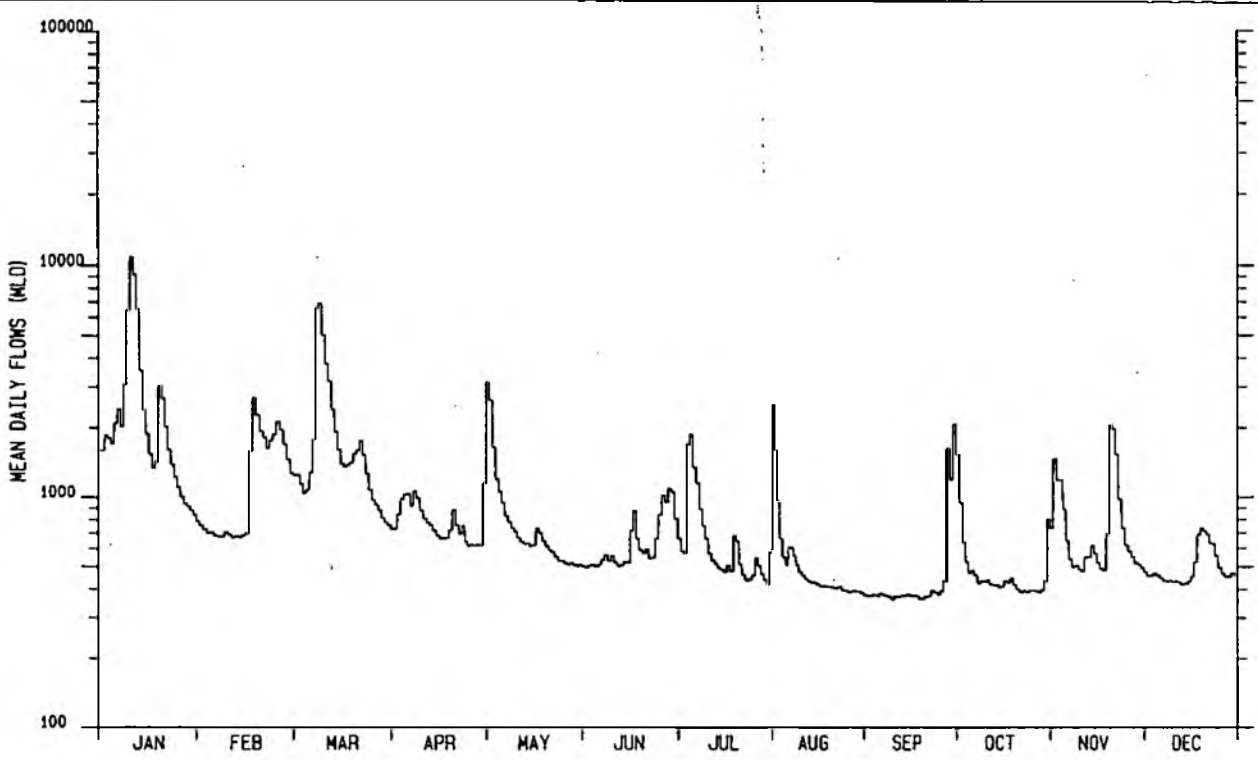


NRA	SEVERN TRENT REGION WATER RESOURCES	ANNUAL HYDROGRAPH OF MEAN DAILY FLOWS	
		R. AVON AT STARETON for 1991	Stn.No: 2019

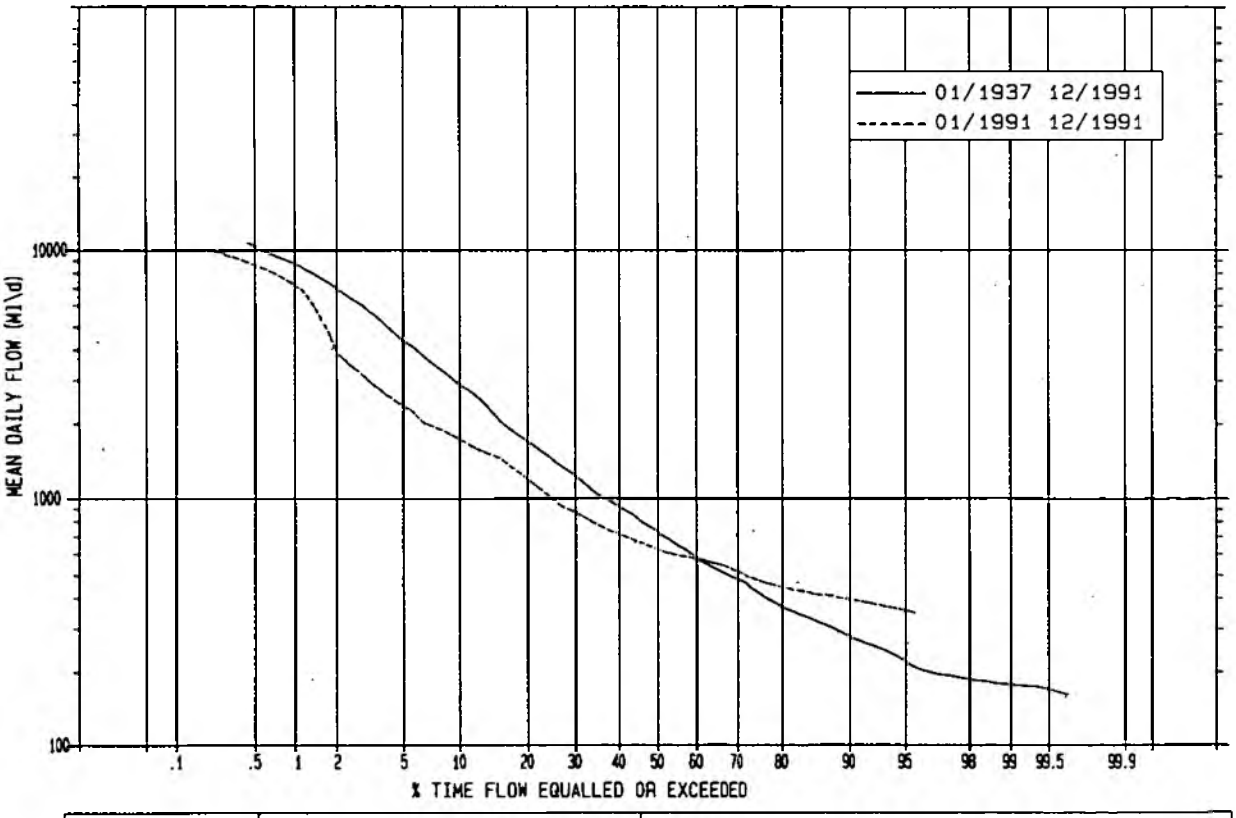


NRA	SEVERN TRENT REGION WATER RESOURCES	FLOW DURATION CURVE OF MEAN DAILY FLOWS	
		R. AVON AT STARETON	Stn.No: 2019

FIGURE 9

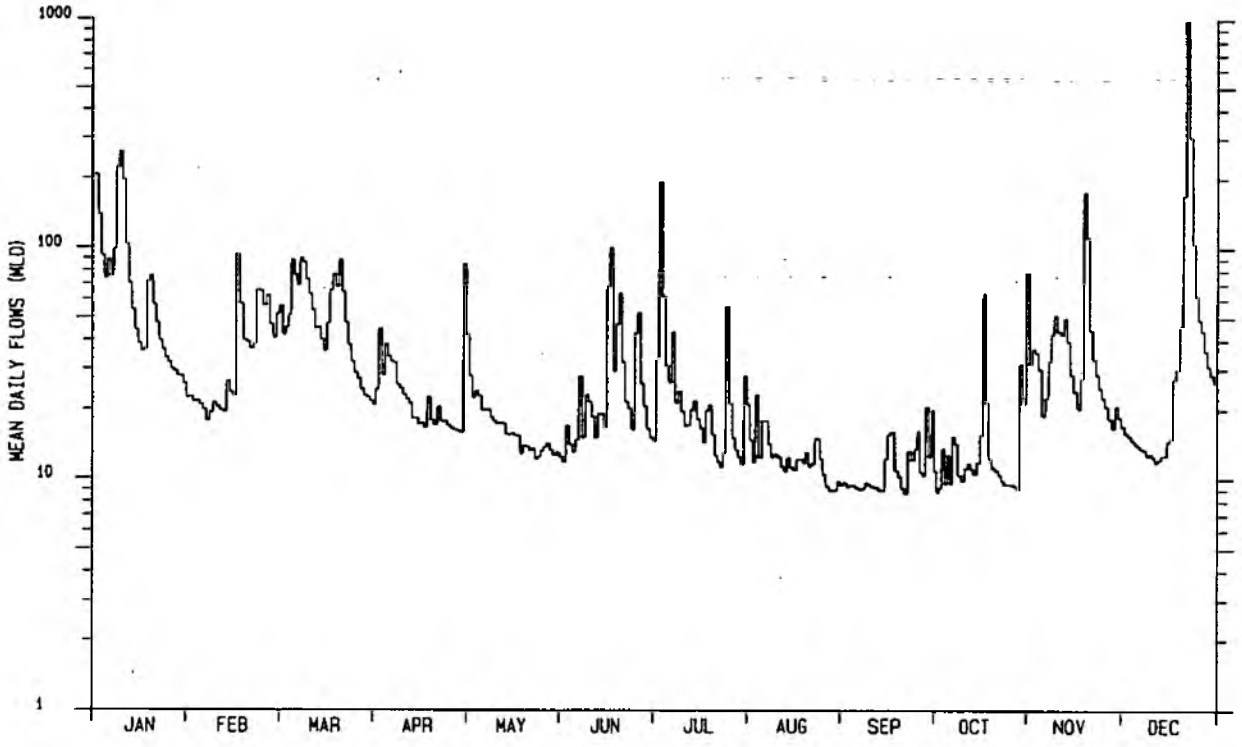


NRA	SEVERN TRENT REGION WATER RESOURCES	ANNUAL HYDROGRAPH OF MEAN DAILY FLOWS	
		R. AVON AT EVESHAM for 1991	Stn.No: 2002

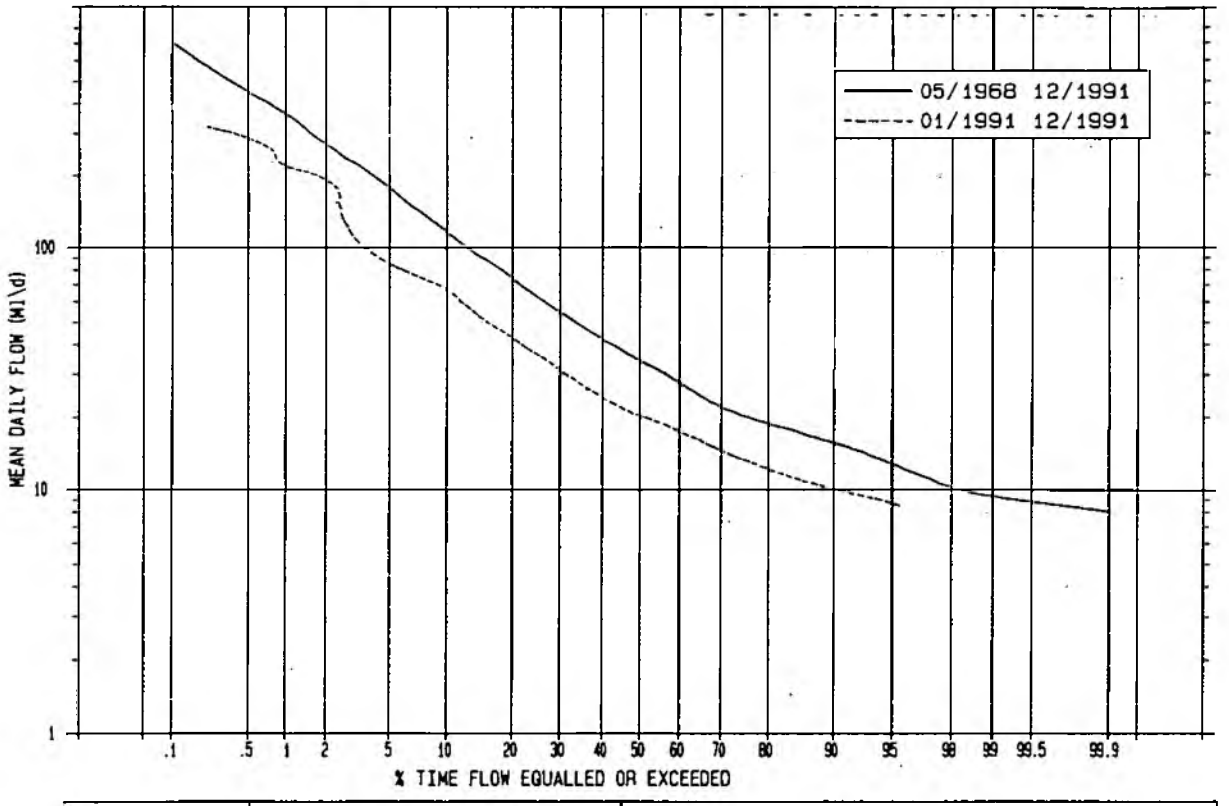


NRA	SEVERN TRENT REGION WATER RESOURCES	FLOW DURATION CURVE OF MEAN DAILY FLOWS	
		R. AVON AT EVESHAM	Stn.No: 2002

FIGURE 10.

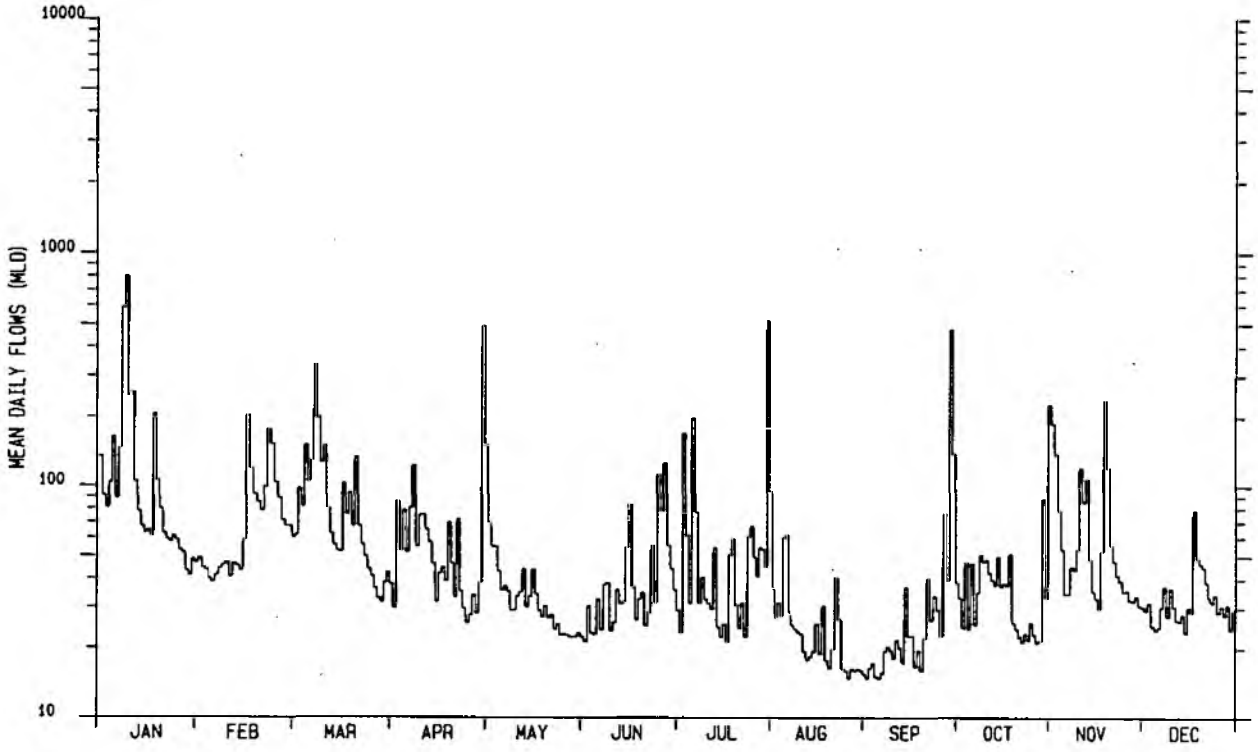


NRA	SEVERN TRENT REGION WATER RESOURCES	ANNUAL HYDROGRAPH OF MEAN DAILY FLOWS	
		R. TRENT AT STOKE for 1991	Stn.No: 4040

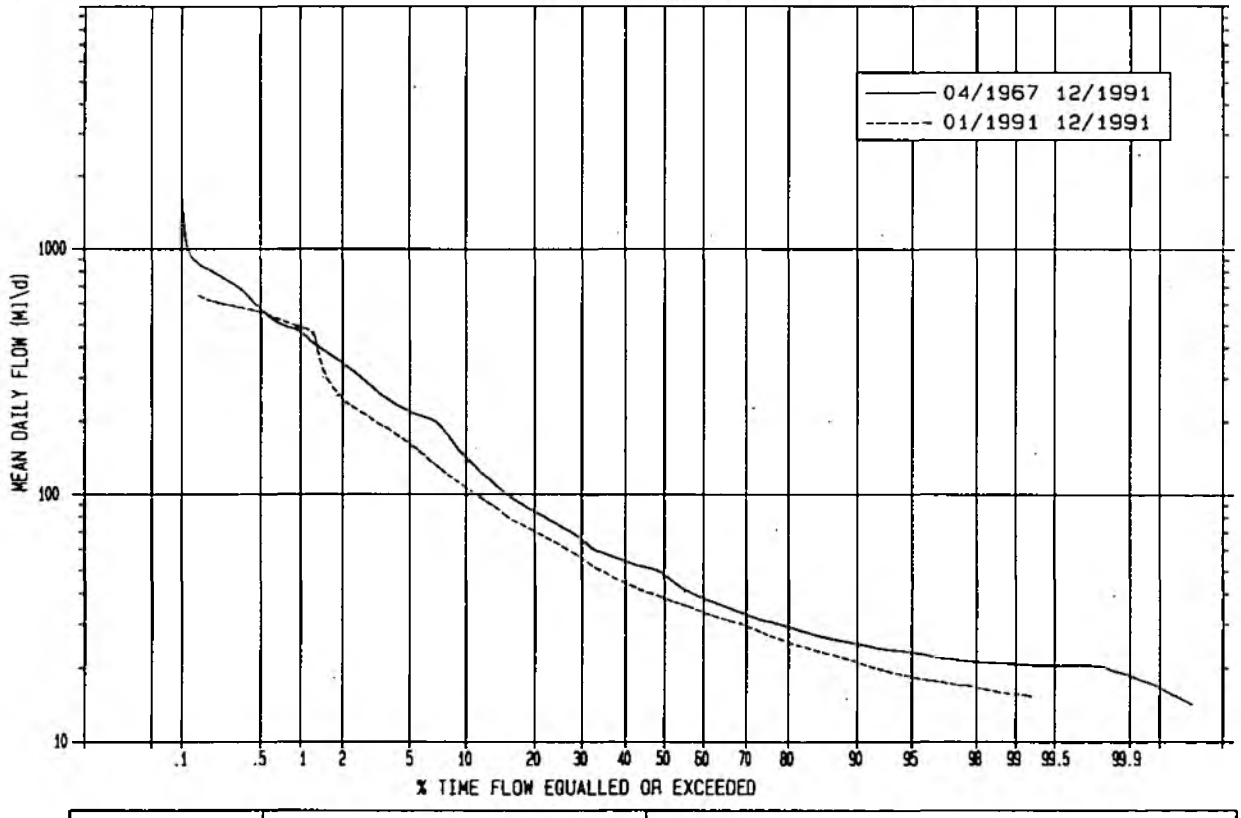


NRA	SEVERN TRENT REGION WATER RESOURCES	FLOW DURATION CURVE OF MEAN DAILY FLOWS	
		R. TRENT AT STOKE	Stn.No: 4040

FIGURE 11.

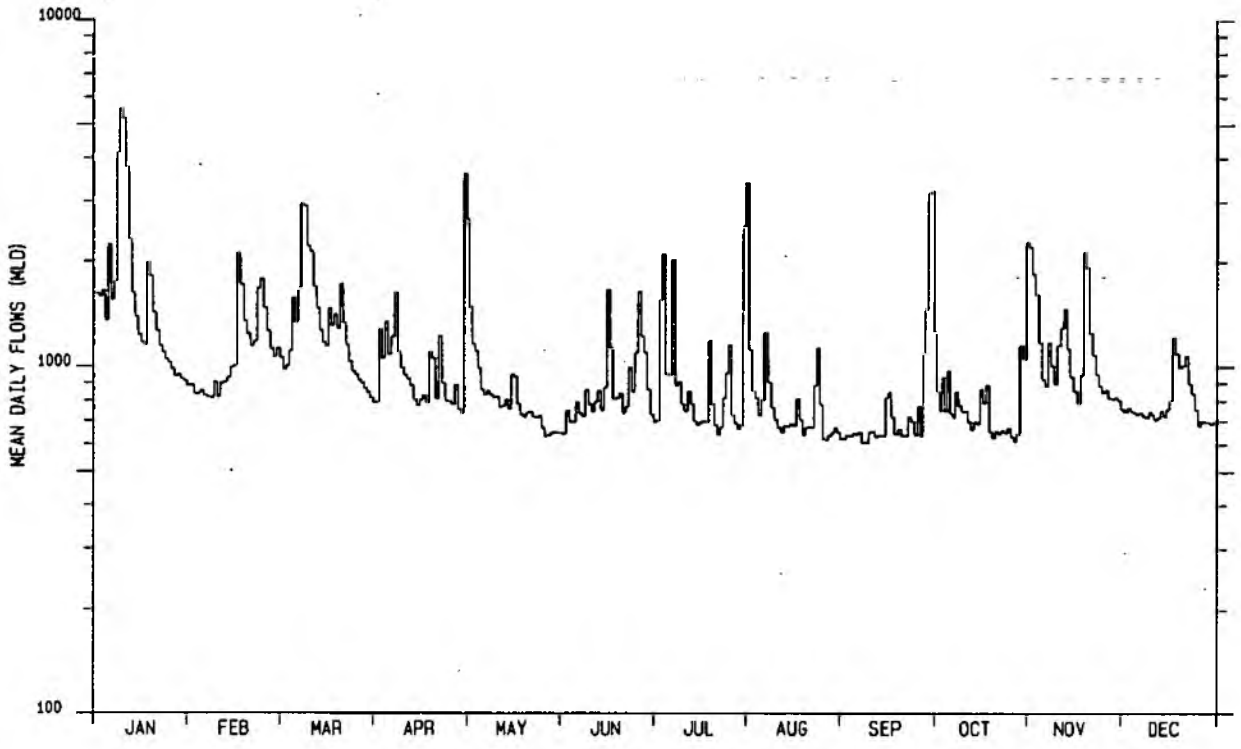


NRA	SEVERN TRENT REGION WATER RESOURCES	ANNUAL HYDROGRAPH OF MEAN DAILY FLOWS	
		R. REA AT CALTHORPE PARK for 1991	Stn.No: 4039

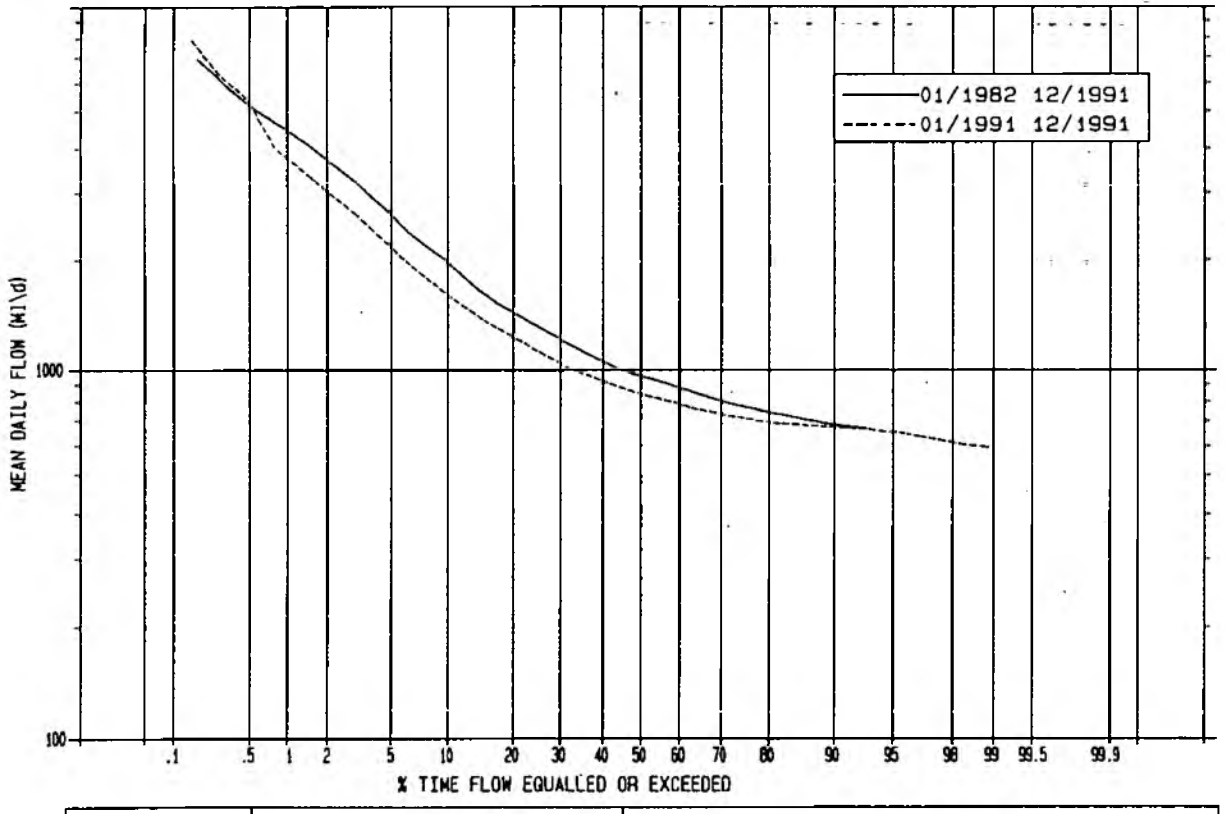


NRA	SEVERN TRENT REGION WATER RESOURCES	FLOW DURATION CURVE OF MEAN DAILY FLOWS	
		R. REA AT CALTHORPE PARK	Stn.No: 4039

FIGURE 12.

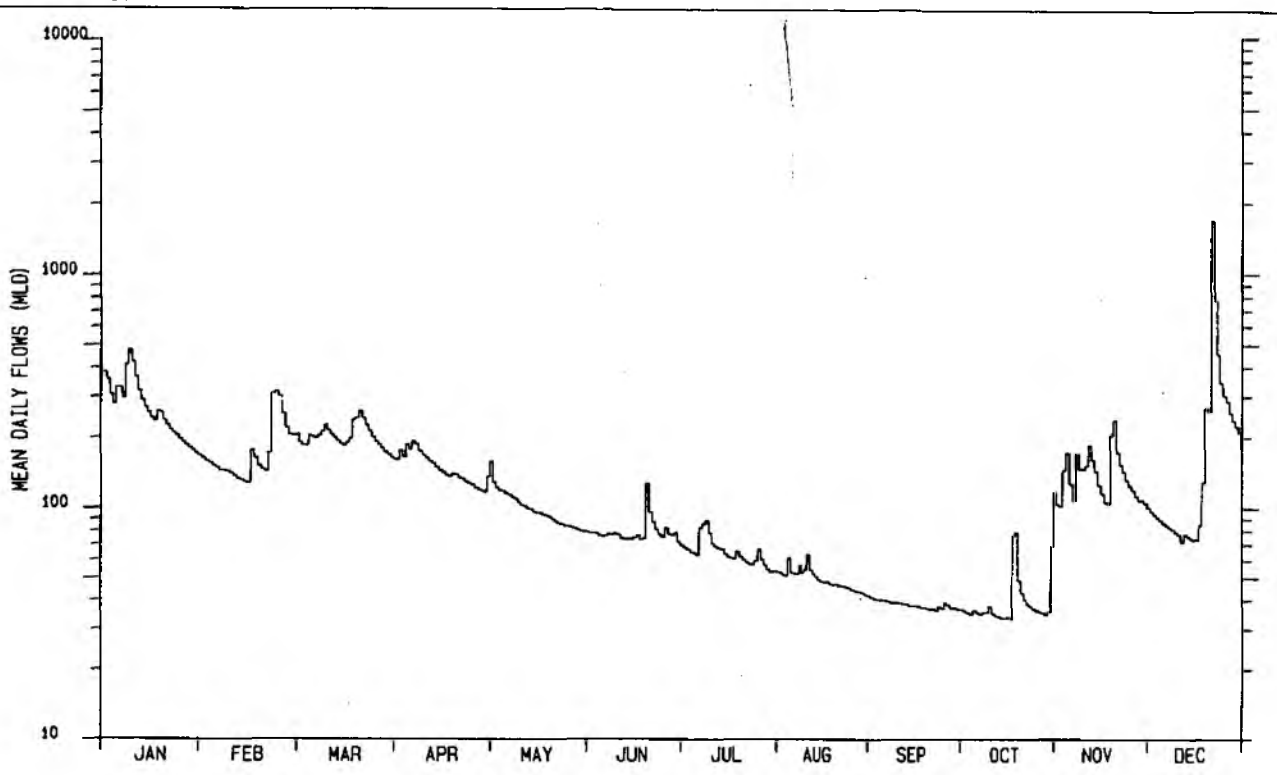


NRA	SEVERN TRENT REGION WATER RESOURCES	ANNUAL HYDROGRAPH OF MEAN DAILY FLOWS	
		R. TAME AT LEA MARSTON for 1991	Stn.No: 4080

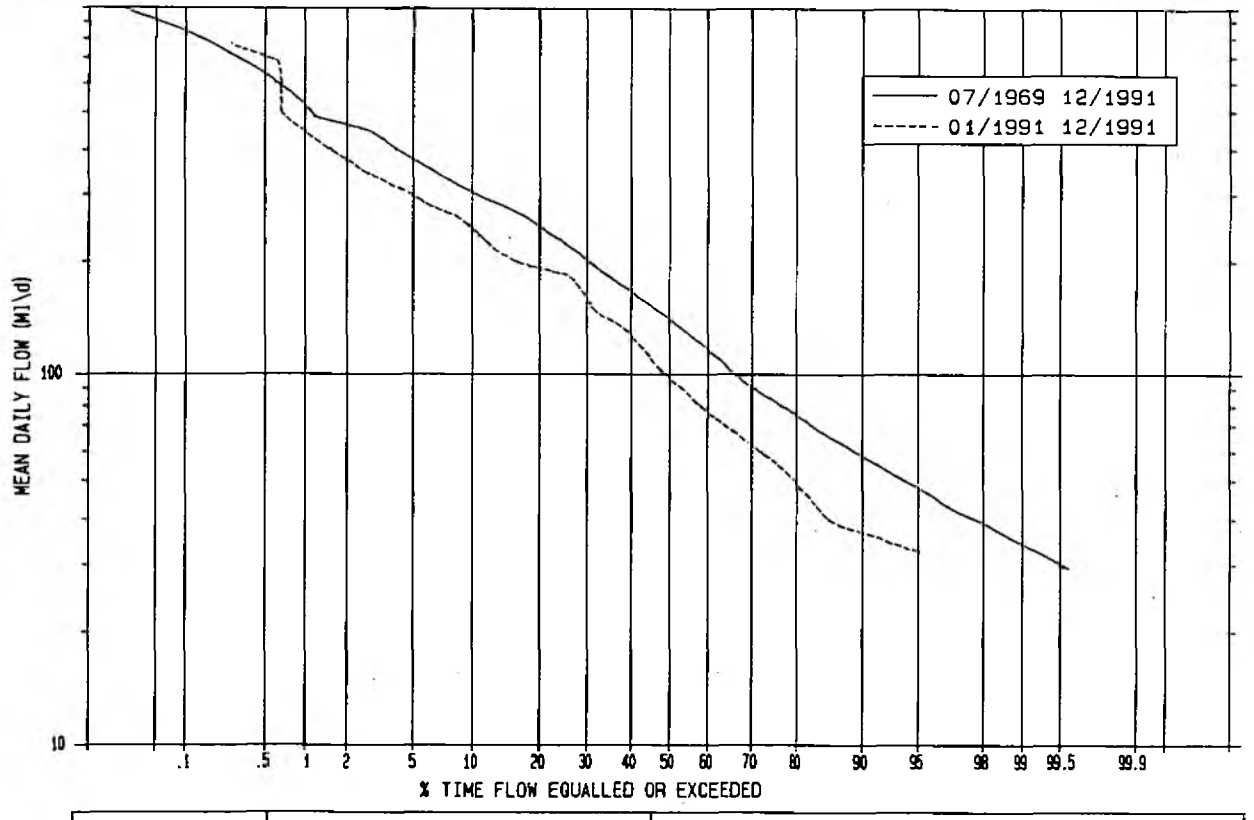


NRA	SEVERN TRENT REGION WATER RESOURCES	FLOW-DURATION CURVE OF MEAN DAILY FLOWS	
		R. TAME AT LEA MARSTON	Stn.No: 4080

FIGURE 13.

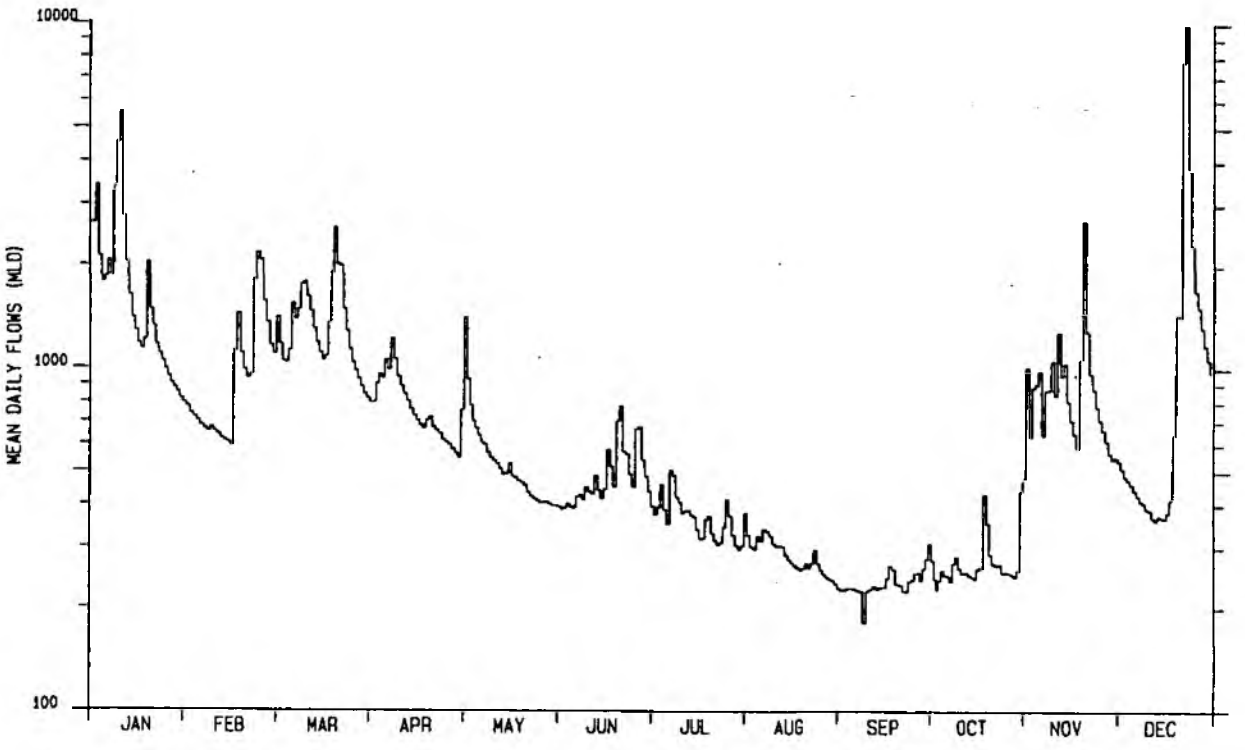


NRA	SEVERN TRENT REGION WATER RESOURCES	ANNUAL HYDROGRAPH OF MEAN DAILY FLOWS	
		R. DOVE AT IZAAK WALTON for 1991	Stn.No: 4046

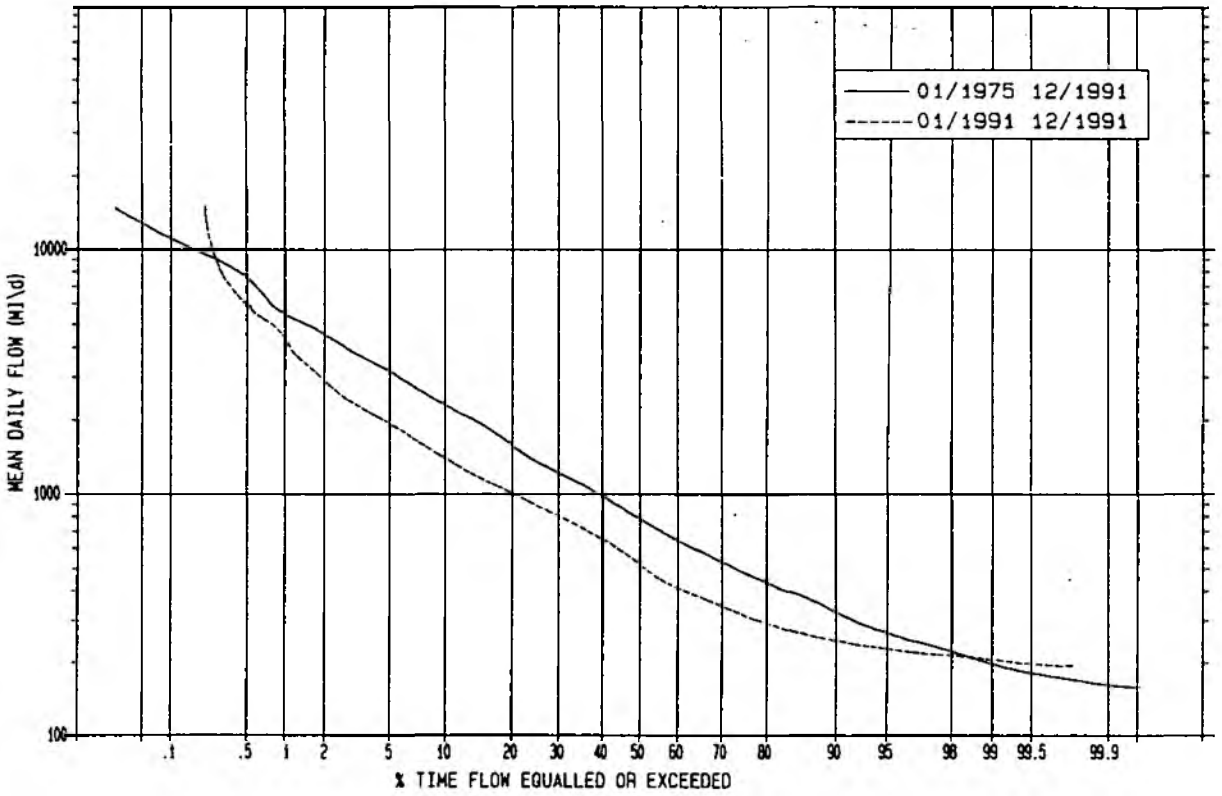


NRA	SEVERN TRENT REGION WATER RESOURCES	FLOW DURATION CURVE OF MEAN DAILY FLOWS	
		R. DOVE AT IZAAK WALTON	Stn.No: 4046

FIGURE 14.

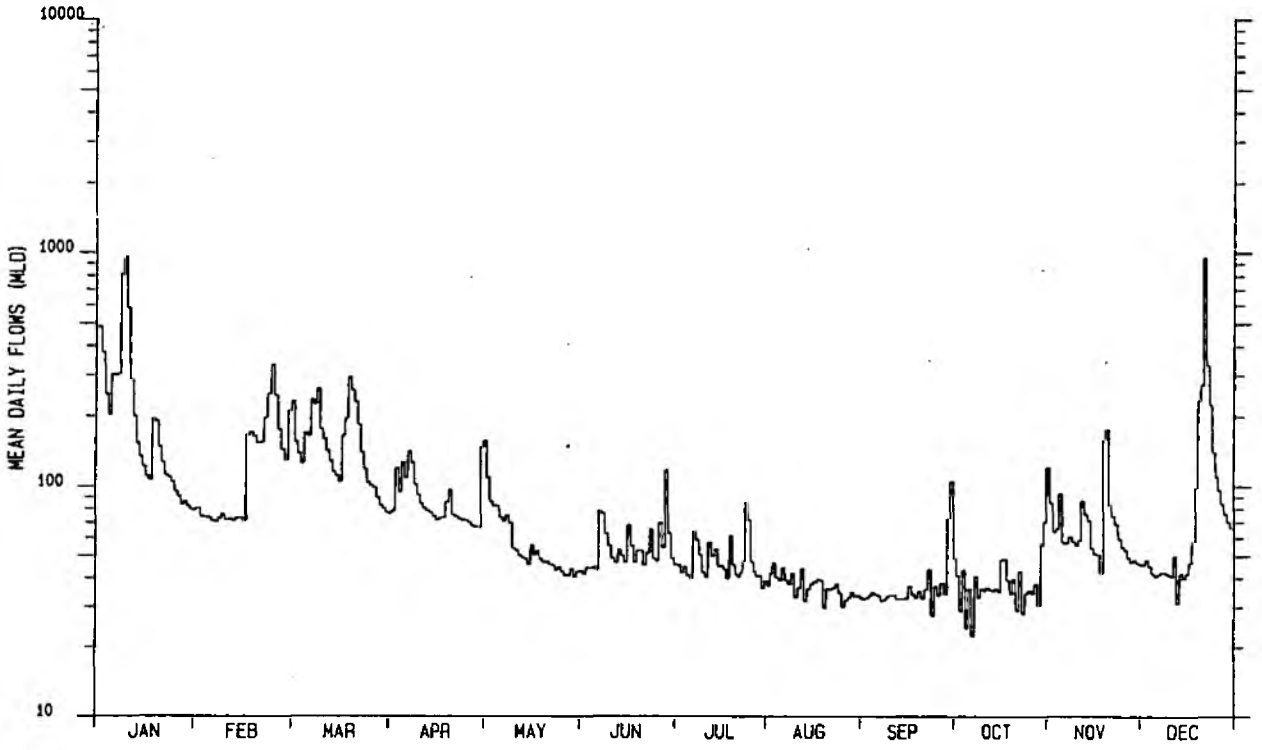


NRA	SEVERN TRENT REGION WATER RESOURCES	ANNUAL HYDROGRAPH OF MEAN DAILY FLOWS	
		R. DOVE AT MARSTON for 1991	Stn.No: 4018

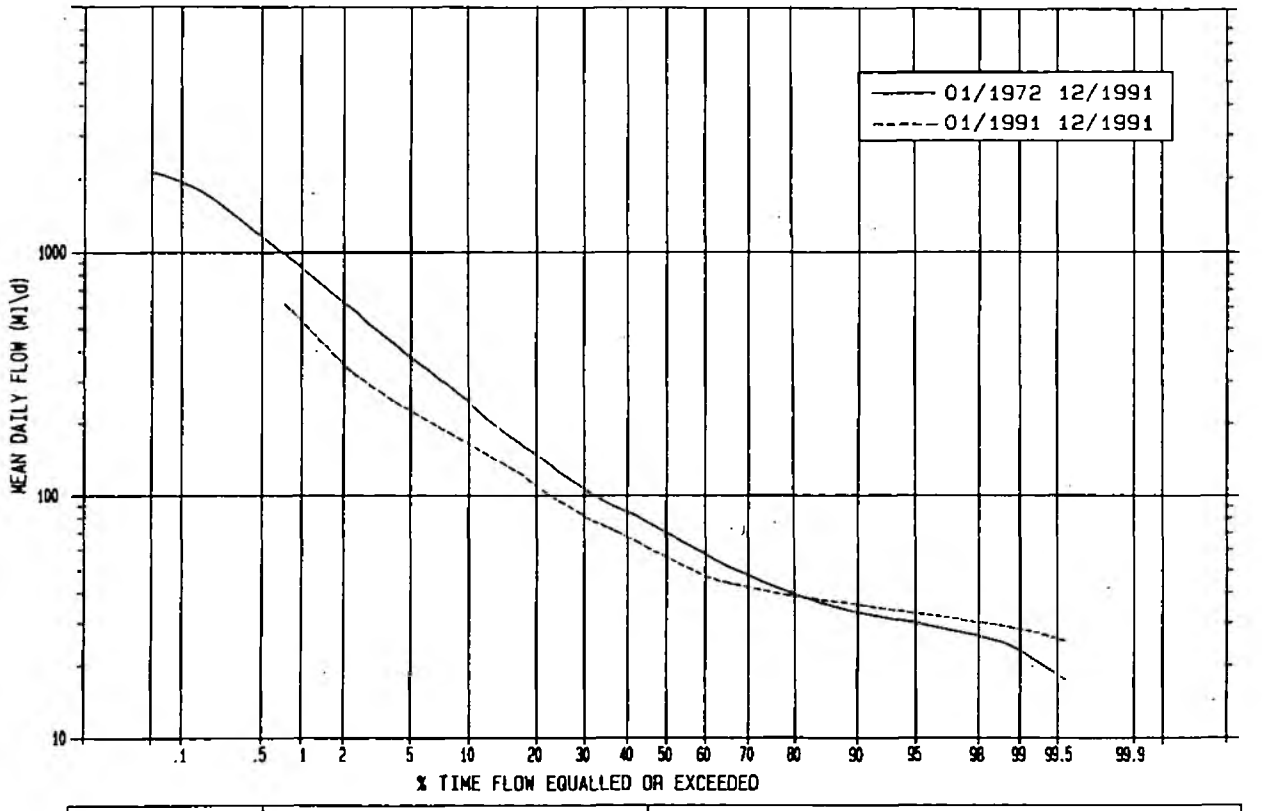


NRA	SEVERN TRENT REGION WATER RESOURCES	FLOW DURATION CURVE OF MEAN DAILY FLOWS	
		R. DOVE AT MARSTON	Stn.No: 4018

FIGURE 15.

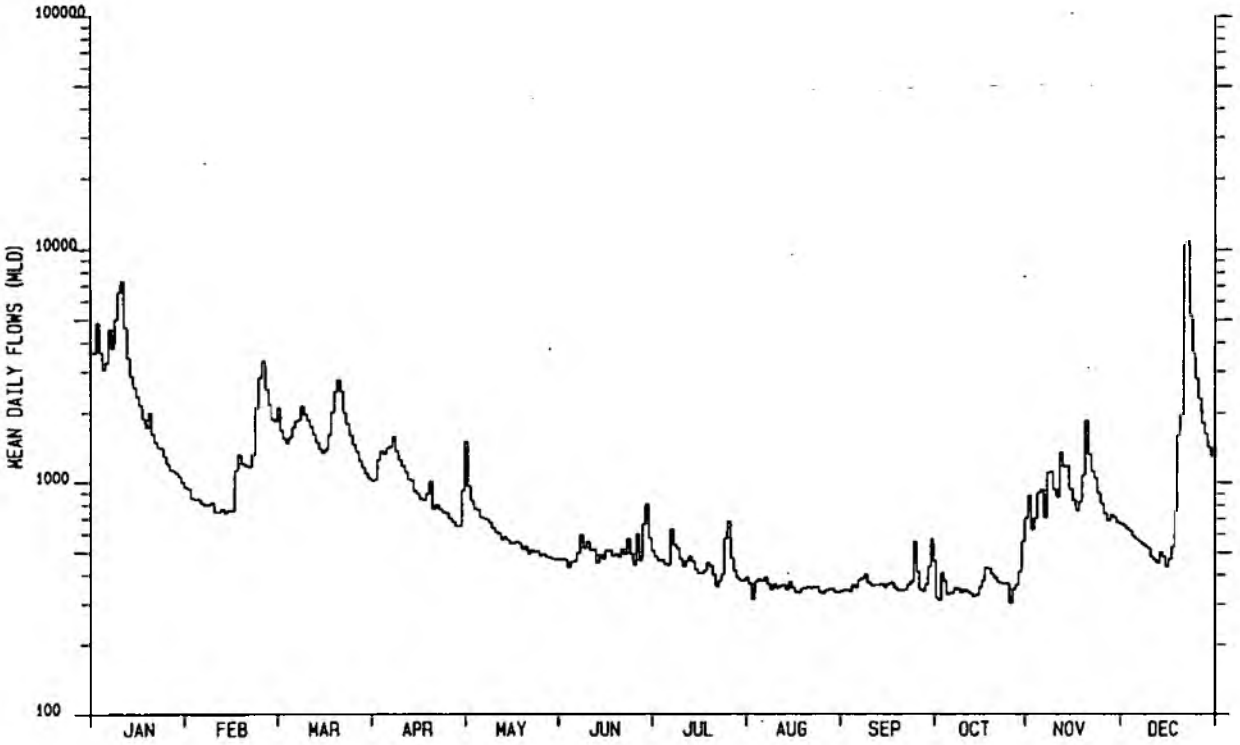


NRA	SEVERN TRENT REGION WATER RESOURCES	ANNUAL HYDROGRAPH OF MEAN DAILY FLOWS	
		R. AMBER AT WINGFIELD PARK for 1991	Stn.No: 4048

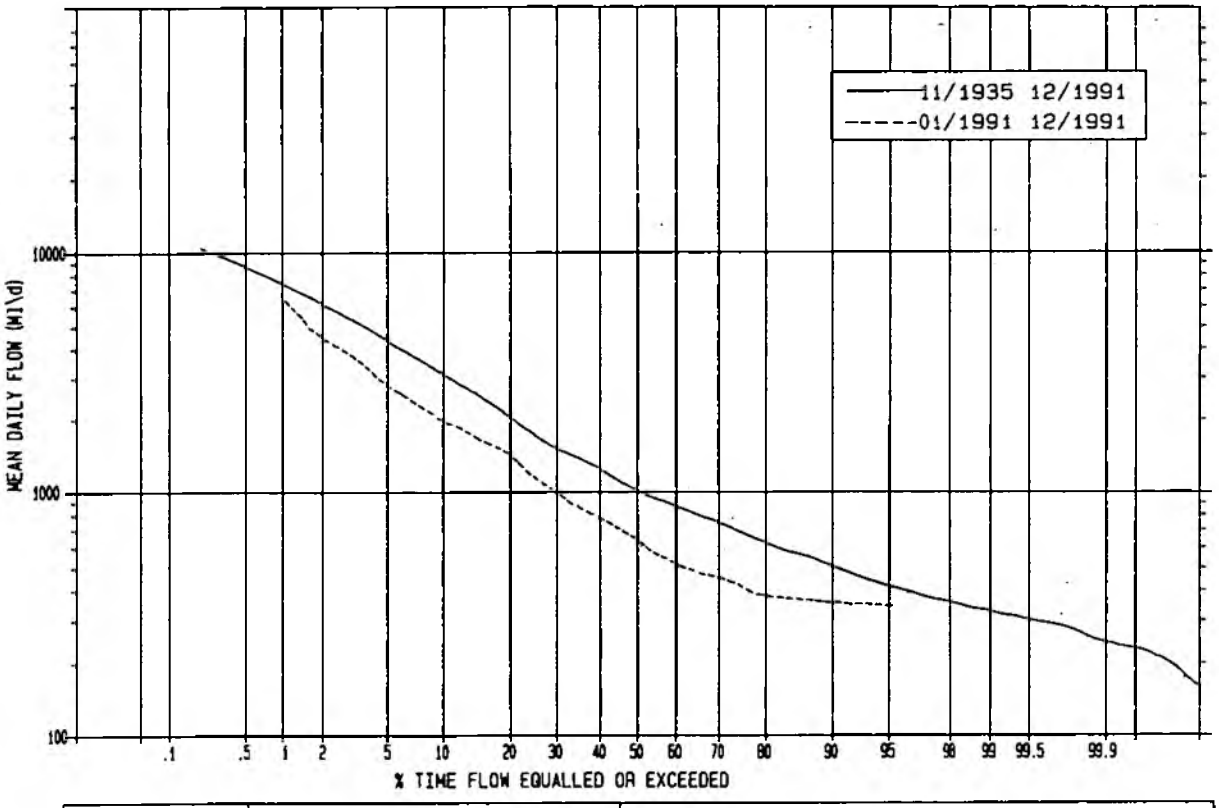


NRA	SEVERN TRENT REGION WATER RESOURCES	FLOW DURATION CURVE OF MEAN DAILY FLOWS	
		R. AMBER AT WINGFIELD PARK	Stn.No: 4048

FIGURE 16.

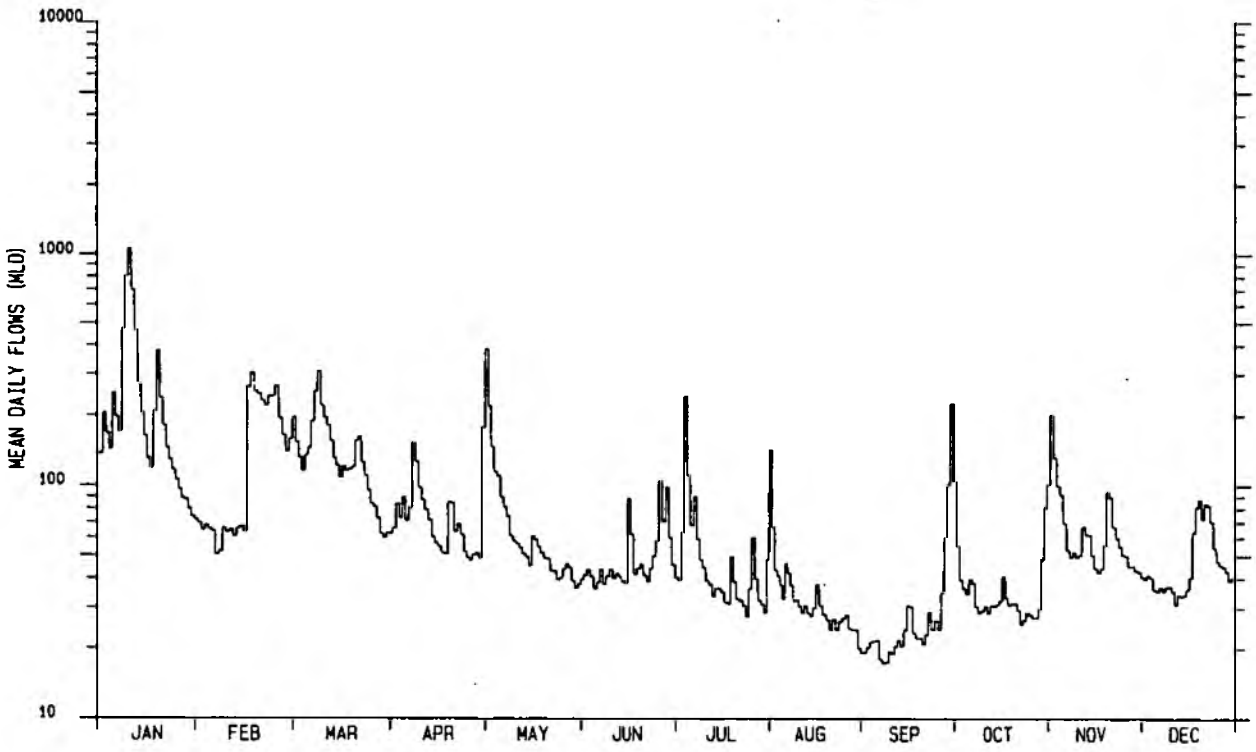


NRA	SEVERN TRENT REGION WATER RESOURCES	ANNUAL HYDROGRAPH OF MEAN DAILY FLOWS	
		R. DERWENT AT DERBY ST. MARYS for 1991	Stn.No: 4085

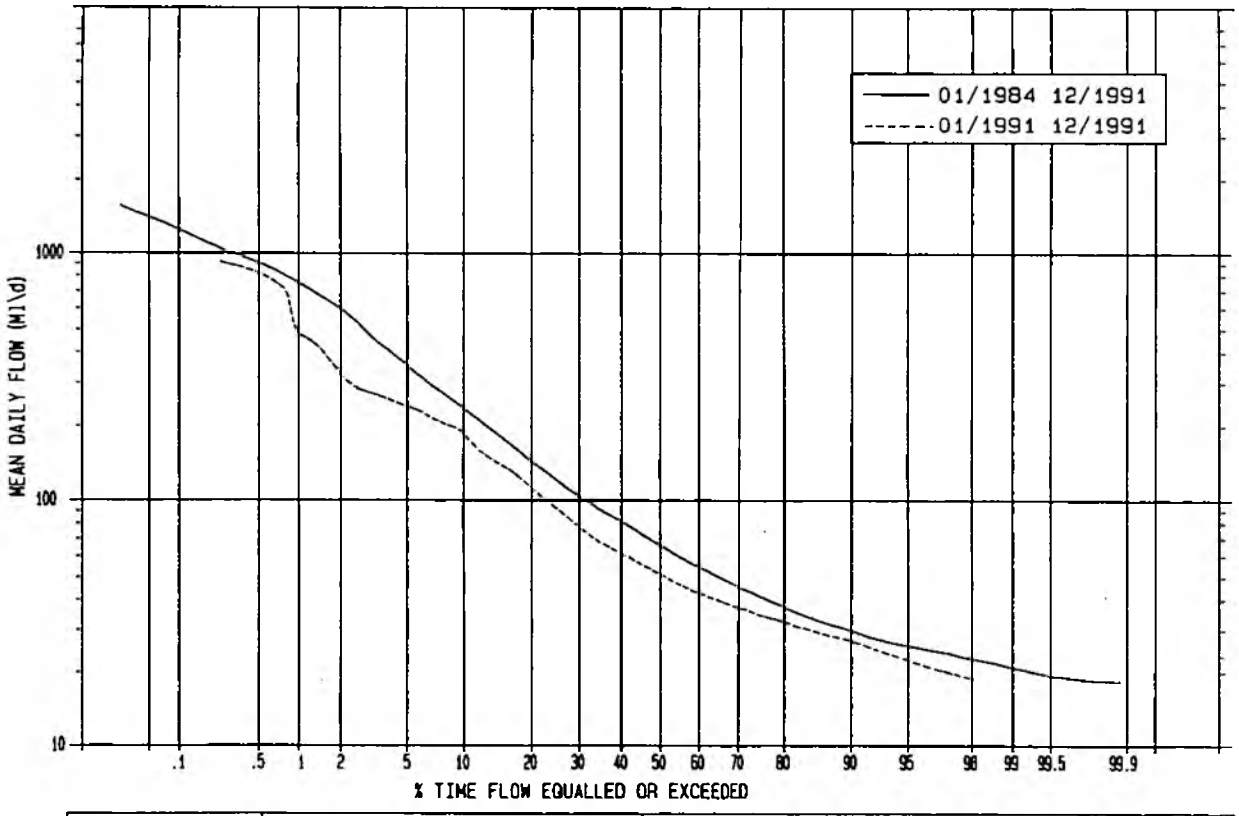


NRA	SEVERN TRENT REGION WATER RESOURCES	FLOW DURATION CURVE OF MEAN DAILY FLOWS	
		R. DERWENT AT LBW/ST. MARYS	Stn.No: 4085

FIGURE 17.

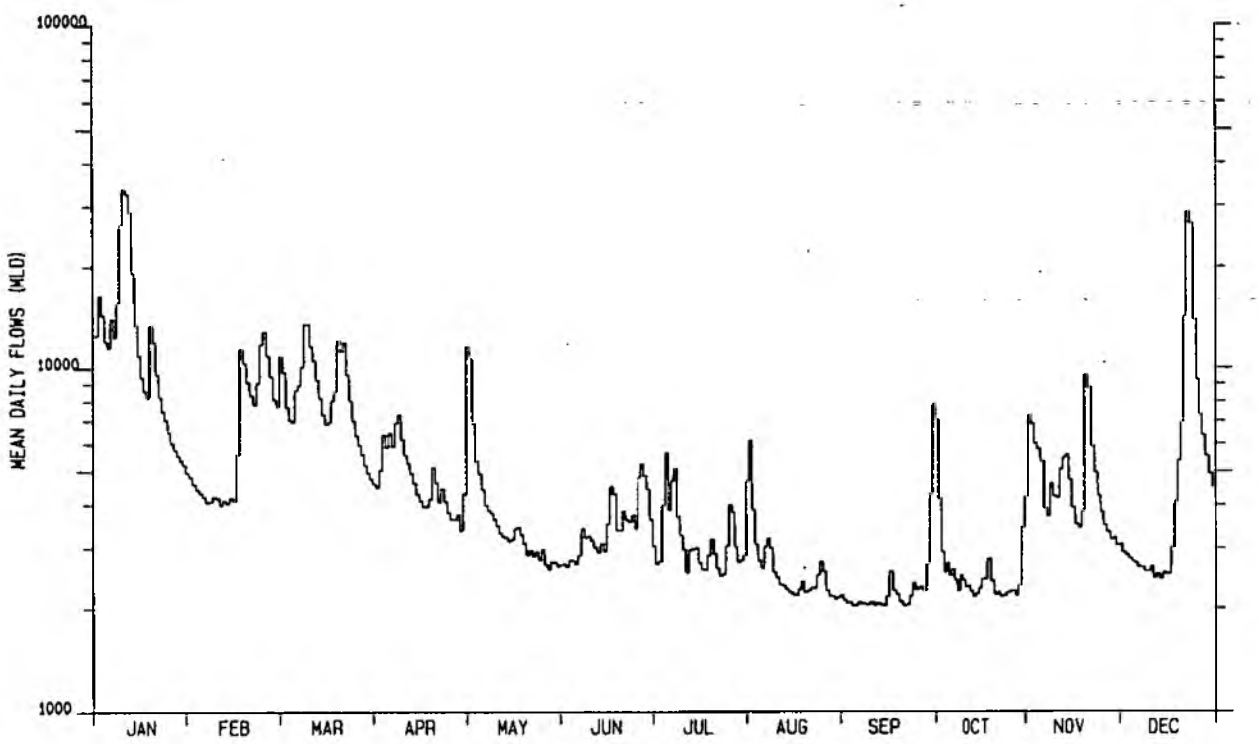


NRA	SEVERN TRENT REGION WATER RESOURCES	ANNUAL HYDROGRAPH OF MEAN DAILY FLOWS	
		R. SOAR AT LITTLETHORPE for 1991	Stn.No: 4082

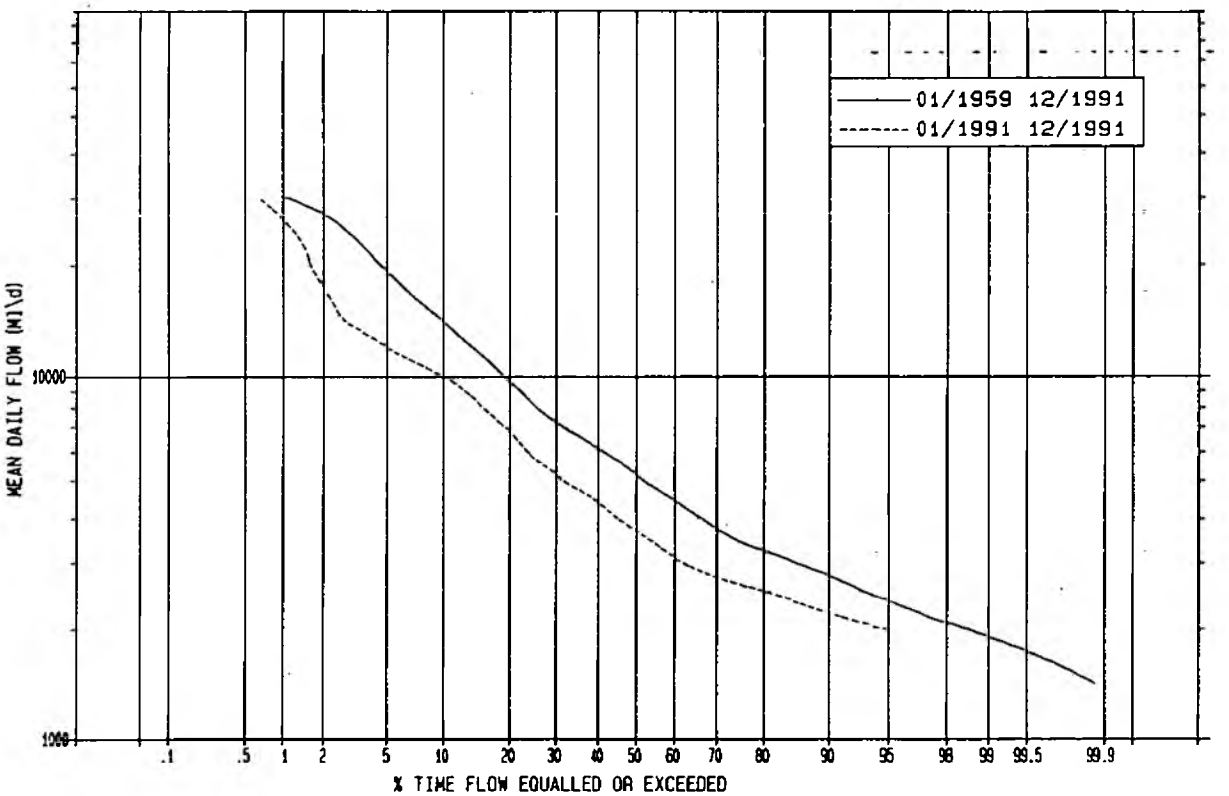


NRA	SEVERN TRENT REGION WATER RESOURCES	FLOW DURATION CURVE OF MEAN DAILY FLOWS	
		R. SOAR AT LITTLETHORPE	Stn.No: 4082

FIGURE 18.



NRA	SEVERN TRENT REGION WATER RESOURCES	ANNUAL HYDROGRAPH OF MEAN DAILY FLOWS	
		R. TRENT AT COLWICK for 1991	Stn.No: 4009



NRA	SEVERN TRENT REGION WATER RESOURCES	FLOW DURATION CURVE OF MEAN DAILY FLOWS	
		R. TRENT AT COLWICK	Stn.No: 4009

4. RAINFALL

Rainfall is measured in two basic ways. The first is by use of a storage gauge, which is manually read at a set frequency, usually daily, although it may be weekly or monthly. The second is where the gauge incorporates a recorder that logs more detailed information on the distribution of rainfall throughout the day. Severn Trent Region use tipping bucket gauges that generate a pulse for each half millimetre rainfall increment. An on site TG1150 logger records the precise time (to a second) of each pulse. These loggers are interrogated using the telephone network with the data downloaded for archiving. Most of the daily gauges in the region are operated by voluntary observers with data returns made monthly to Regional headquarters. From there, the data is passed on to the Meteorological Office for quality control and archiving. Subsequently data is returned to the Regional Office for merging into NRA archives. Both daily rainfall and event data is archived on a micro computer based system that allows analysis and graphical presentation of the data.

Locations of both types of rainfall site are given in the catalogue section Tables 23 & 24.

4.1 DAILY RAINFALL TOTALS FOR SELECTED SITES.

Tables 11 to 20 list daily rainfall for 1991 at ten selected sites throughout the region out of the total of 354 for which data is available. The site locations are shown in Figure 3. The tables show the daily rainfall totals, with a comparison of the monthly totals against the standard period average (1941-70). Brackets around a total indicate that the data has been apportioned by the Meteorological Office from multi day totals.

4.2 AREAL RAINFALL FOR 1991.

Maps of the annual rainfall for 1991 and its comparison with the standard period average (1941-70) have been produced in Figures 19 & 20. They show the wide variation in annual rainfall across the region from 1600mm in the Welsh mountains which was close to average for the year, to 400mm in Lower Trent which was only 68% of the average.

Table 21 shows the monthly areal average data for the Region and the various sub areas, with totals and comparisons with long term averages. The table highlights the very dry months of May and August with April, June & July receiving above average monthly rainfall. However, annual totals were less than average for the region as a whole, the two major basins and the majority of the sub-basins with only the ubiquitous Welsh mountains having near average rainfall.

TABLE 11

Name: Rhiwlas Station Number 427166 Rainfall in mm 1991

Day No	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
1	34.9	0.0	0.0	14.6	0.1	0.0	0.0	0.0	0.0	(0.0)	(10.9)	0.0	
2	5.7	0.0	9.8	12.7	0.0	0.6	3.1	0.9	0.0	4.4	(9.5)	0.0	
3	9.7	0.4	2.9	2.4	5.5	0.7	0.9	0.3	0.0	0.4	13.7	0.0	
4	8.4	(0.0)	8.5	8.8	(0.0)	(0.0)	0.0	(0.0)	0.0	(2.7)	11.2	0.0	
5	5.8	0.0	10.7	3.1	0.3	7.2	7.1	(5.3)	0.0	(0.1)	0.1	0.0	
6	5.8	(0.0)	6.3	11.6	1.5	6.1	(0.0)	(0.7)	0.0	(0.0)	6.7	0.0	
7	5.1	1.1	24.7	3.4	0.0	0.2	0.2	0.0	0.0	23.3	6.4	0.0	
8	22.1	0.1	6.9	0.2	0.0	18.1	7.1	0.0	0.0	1.2	(2.4)	0.0	
9	25.6	0.2	8.1	0.0	0.0	17.7	0.0	0.0	0.0	2.1	(4.7)	0.0	
10	6.2	0.0	5.9	0.0	0.0	0.1	0.0	0.0	0.0	0.1	15.2	0.0	
11	0.1	(0.0)	0.7	0.2	0.0	5.7	2.3	0.0	0.0	0.9	1.6	0.0	
12	0.0	0.1	0.6	0.0	0.0	2.2	1.9	0.0	0.0	0.0	12.8	0.0	
13	0.0	0.0	2.3	0.0	(0.0)	2.1	1.5	0.0	0.9	1.3	1.3	0.0	
14	0.0	1.8	0.0	0.0	0.0	7.1	0.9	0.0	2.7	0.0	1.1	0.0	
15	0.0	0.8	5.1	0.0	(0.0)	0.3	0.9	0.0	1.7	2.8	(0.3)	3.2	
16	1.9	(0.0)	3.7	0.0	0.0	1.5	0.1	0.9	(0.3)	1.9	(1.9)	(0.0)	
17	0.4	0.0	3.9	0.0	0.1	1.7	9.2	(0.0)	(0.7)	17.1	13.9	14.6	
18	(5.2)	0.0	15.5	1.1	0.0	1.1	2.2	0.8	(0.0)	(10.3)	24.7	6.6	
19	(0.4)	0.0	0.7	0.2	0.0	0.4	0.2	0.5	(0.0)	3.6	0.3	13.4	
20	0.0	1.9	9.4	1.4	0.0	1.5	0.0	0.9	(0.0)	(0.4)	0.0	10.4	
21	0.0	16.1	0.9	2.1	0.0	5.6	0.0	0.5	(2.4)	0.0	(1.7)	18.6	
22	0.0	45.8	1.8	0.0	0.0	7.1	0.1	(6.5)	(0.7)	0.0	(0.0)	6.1	
23	1.5	10.5	0.0	0.0	0.0	1.7	4.9	(14.5)	16.9	0.0	(0.0)	10.1	
24	0.0	0.2	0.0	0.0	0.0	9.6	1.5	(0.0)	2.4	(0.0)	(0.0)	0.0	
25	0.0	0.1	0.0	0.7	0.0	0.7	0.3	0.0	4.5	(1.9)	(0.0)	0.0	
26	(0.0)	1.1	0.0	0.0	0.0	2.1	0.0	(0.0)	(10.6)	0.0	0.0	0.0	
27	0.2	2.3	0.0	0.0	0.3	5.3	0.0	(1.0)	(0.4)	(0.0)	0.9	0.0	
28	(0.0)	0.0	0.0	5.6	0.0	0.1	0.0	0.0	(35.5)	0.7	0.0	0.0	
29	0.3	*****	0.0	35.3	0.0	(0.0)	0.0	0.0	2.5	7.3	0.0	0.0	
30	1.7	*****	0.0	0.7	0.0	0.0	18.1	0.0	1.5	0.6	0.0	0.0	
31	0.4	*****	0.0	*****	0.0	*****	5.9	(0.0)	*****	20.9	*****	(0.0)	
Totals	141.4	82.5	128.4	104.1	7.8	106.5	68.4	32.8	83.7	104.5	141.3	83.0	1084.4
Average	129.0	96.0	81.0	75.0	84.0	69.0	80.0	97.0	104.0	113.0	126.0	136.0	1190.0
% of Av	109.6	85.9	158.5	138.8	9.3	154.3	85.5	33.8	80.5	92.5	112.1	61.0	91.1

TABLE 12

Name: Hatton Grange Station Number 435528 Rainfall in mm 1991

Day No	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
1	7.3	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	4.9	0.0	
2	1.0	0.0	2.3	6.2	0.0	2.8	7.5	0.0	0.0	1.2	5.3	0.0	
3	2.5	0.0	0.0	1.9	4.0	0.0	0.0	0.7	0.0	0.4	1.3	0.0	
4	3.3	0.0	7.4	3.6	0.0	0.0	0.0	0.0	0.0	2.5	3.3	0.0	
5	1.0	0.0	1.5	1.5	0.0	4.2	21.7	4.6	0.0	3.4	0.0	0.0	
6	3.3	0.0	9.5	4.0	0.0	3.7	0.1	2.5	0.0	0.0	0.4	0.0	
7	4.1	(10.5)	7.0	5.7	1.0	0.2	0.0	4.8	0.0	3.7	2.3	0.0	
8	12.0	0.3	0.7	0.0	0.0	3.7	3.7	0.0	0.0	0.5	2.3	0.0	
9	17.6	0.0	0.0	0.0	0.0	2.7	0.0	0.6	0.0	0.4	0.0	0.0	
10	1.1	0.0	2.6	0.0	0.0	2.8	0.0	0.4	0.0	0.0	3.7	0.0	
11	4.7	0.0	0.0	0.0	0.0	1.7	0.1	0.4	0.0	0.7	0.0	0.0	
12	0.0	0.0	0.0	0.4	0.0	1.7	0.2	0.0	0.0	0.1	7.6	0.0	
13	0.0	0.0	2.1	0.0	1.4	0.2	0.9	0.0	0.0	0.0	0.5	0.0	
14	0.0	3.3	0.2	0.0	0.0	7.3	0.1	0.0	0.0	0.0	0.5	0.0	
15	0.0	1.0	1.7	0.0	0.6	5.3	0.0	0.0	4.3	1.5	0.0	3.0	
16	0.8	0.0	2.5	0.0	1.5	0.6	0.0	0.0	0.0	0.2	2.3	1.5	
17	0.0	0.0	0.7	0.6	0.0	0.5	9.3	0.4	0.0	3.4	2.0	(3.8)	
18	5.9	0.0	1.6	0.5	0.0	0.6	0.0	0.0	0.0	1.2	6.8	(0.9)	
19	0.0	0.0	0.0	1.0	0.0	0.2	0.0	0.4	0.0	0.0	0.0	3.1	
20	0.1	0.2	4.5	0.3	0.0	1.5	0.0	0.0	0.0	0.2	0.0	1.5	
21	0.0	5.8	0.3	7.0	0.0	0.7	0.0	0.0	3.3	0.0	0.4	3.0	
22	0.0	(3.5)	1.4	0.0	0.0	5.5	0.0	1.1	0.3	0.0	0.0	0.1	
23	0.0	(0.6)	0.0	0.0	0.0	0.0	0.0	3.1	1.2	0.0	0.0	0.3	
24	0.0	(1.2)	0.0	0.0	0.0	11.0	5.2	0.1	0.0	0.1	0.0	0.0	
25	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	1.0	0.1	0.0	0.0	
26	0.0	0.1	0.0	2.3	0.0	0.4	0.0	0.0	18.4	0.0	0.8	0.0	
27	0.0	3.5	0.0	0.0	0.0	0.5	0.0	0.0	7.4	0.0	0.0	0.0	
28	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	17.6	0.0	1.2	0.0	
29	0.0	*****	0.0	31.5	0.0	0.4	0.0	0.0	0.5	7.1	0.1	0.0	
30	0.0	*****	0.0	0.0	0.0	0.0	33.2	0.0	0.0	0.4	0.0	0.0	
31	0.3	*****	0.0	*****	0.0	*****	0.1	0.0	*****	12.1	*****	0.0	
Totals	65.0	(30.0)	46.0	67.7	8.5	58.6	83.4	19.1	54.0	39.2	45.7	17.2	534.4
Average	59.0	48.0	48.0	47.0	63.0	51.0	65.0	76.0	63.0	58.0	72.0	63.0	713.0
% of Av	110.2	62.5	95.8	144.0	13.5	114.9	128.3	25.1	85.7	67.6	63.5	27.3	75.0

TABLE 13

Name: Brampton Bryan Station Number 440885 Rainfall in mm 1991

Day No	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
1	12.2	0.0	0.0	0.4	0.1	0.0	0.0	0.0	0.0	0.0	7.7	0.0	
2	1.5	0.0	7.6	6.9	0.0	0.0	6.0	0.0	0.0	2.8	9.6	0.0	
3	8.7	0.0	0.1	3.0	5.1	1.4	0.4	1.8	0.0	0.5	3.1	0.0	
4	8.8	0.0	21.8	7.2	0.1	0.0	0.0	0.0	0.0	0.7	0.5	0.0	
5	2.1	0.0	4.0	0.2	0.0	3.4	7.4	4.5	0.0	2.1	0.0	0.0	
6	2.9	0.0	17.7	8.2	0.0	0.2	0.0	1.4	0.0	0.0	1.7	0.0	
7	8.0	7.2	16.5	1.9	0.6	0.4	2.0	0.0	0.0	22.2	0.5	0.0	
8	21.6	0.4	4.3	0.0	0.0	8.5	4.4	0.0	0.0	3.5	0.8	0.0	
9	22.2	0.0	1.2	0.0	0.0	5.5	0.0	0.0	0.0	8.7	0.0	0.0	
10	7.4	0.0	5.7	0.0	0.0	1.0	0.0	0.0	0.0	0.2	7.6	0.0	
11	3.1	0.0	0.4	0.0	0.0	2.1	4.5	0.0	0.1	2.2	0.0	0.0	
12	0.0	0.0	0.2	0.2	0.0	2.7	0.1	0.0	0.0	0.0	10.8	0.0	
13	0.0	0.0	2.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	1.1	0.0	
14	0.0	3.3	0.0	0.0	0.0	8.0	0.0	0.0	3.0	0.0	0.2	0.0	
15	0.0	1.5	2.1	0.0	0.0	4.6	2.0	0.0	2.2	1.0	0.2	3.1	
16	4.6	0.0	7.6	0.0	0.0	1.1	0.0	1.0	0.3	0.9	1.4	2.6	
17	0.3	0.0	0.9	0.0	0.0	0.4	12.6	0.0	0.0	2.0	5.4	8.1	
18	6.7	0.0	5.8	3.5	0.0	2.3	1.2	0.0	0.4	0.6	(14.6)	3.6	
19	0.1	0.0	0.9	1.0	0.0	0.1	0.0	0.0	0.0	0.2	1.5	6.1	
20	0.4	0.6	5.0	0.4	0.0	1.0	0.0	(0.0)	0.0	3.0	0.0	6.6	
21	0.0	17.5	0.5	0.0	0.0	2.4	0.0	(0.1)	1.4	0.0	0.6	3.6	
22	0.0	9.1	0.2	0.0	0.0	4.2	0.2	(5.2)	0.6	0.0	0.0	0.1	
23	1.0	2.6	0.0	0.0	0.0	0.4	2.5	(6.4)	2.1	0.0	0.0	0.4	
24	0.0	0.7	0.0	0.7	0.0	14.0	9.2	0.0	0.0	0.0	0.7	0.0	
25	0.0	0.6	0.0	2.3	0.0	0.6	0.1	0.0	0.2	0.7	0.6	0.0	
26	0.0	0.4	0.0	0.4	0.0	7.8	0.0	0.0	1.4	0.0	0.0	0.0	
27	0.0	2.5	0.0	0.0	0.0	6.4	0.0	0.0	0.1	0.0	0.2	0.0	
28	0.0	0.0	0.0	5.6	0.0	0.0	0.0	0.0	30.3	0.9	0.8	0.0	
29	0.0	*****	0.0	29.0	0.0	0.0	0.0	0.0	0.2	18.1	0.0	0.0	
30	2.4	*****	0.0	0.4	0.0	0.2	28.8	0.0	0.0	0.3	0.0	0.0	
31	1.4	*****	0.0	*****	0.0	*****	0.2	0.0	*****	19.6	*****	0.0	
Totals	115.4	46.4	104.5	71.3	5.9	78.8	81.6	20.4	42.3	90.2	(69.6)	34.2	790.6
Average	80.0	61.0	60.0	55.0	73.0	58.0	66.0	88.0	80.0	75.0	91.0	82.0	869.0
% of Av	144.2	76.1	174.2	129.6	8.1	135.9	123.6	23.2	52.9	120.3	76.5	41.7	87.5

TABLE 14

Name: Finham WRW Station Number 449958 Rainfall in mm 1991

Day No	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
1	4.5	0.0	0.0	0.8	3.4	0.0	0.0	0.0	0.0	0.0	6.1	0.0	
2	1.5	0.5	0.9	5.7	0.0	1.3	29.5	0.0	0.0	2.7	4.6	0.0	
3	2.8	0.0	0.1	0.2	2.4	0.2	0.0	0.0	0.0	0.2	2.3	0.0	
4	3.4	0.0	3.5	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	
5	1.8	0.0	5.0	1.0	0.0	2.3	10.0	6.7	0.0	4.2	0.0	0.0	
6	2.1	0.0	3.0	5.5	0.0	1.4	0.0	1.1	0.0	0.0	2.2	0.0	
7	1.3	(6.0)	10.8	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	
8	9.1	(0.3)	2.1	0.1	0.0	(3.6)	1.4	0.0	0.0	0.0	0.9	0.0	
9	26.5	(0.7)	0.2	0.0	0.0	(0.6)	0.0	0.0	0.0	0.5	0.0	0.0	
10	1.2	0.1	5.1	0.0	0.0	0.5	0.0	0.0	(0.5)	0.0	4.8	0.0	
11	7.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	(0.0)	0.0	0.0	0.0	
12	0.0	(1.8)	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	4.5	0.0	
13	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	
14	0.0	(1.4)	0.2	0.0	0.0	6.5	0.0	0.0	0.7	0.0	0.0	0.0	
15	0.0	(1.0)	0.5	0.0	4.0	(6.8)	0.0	0.0	(1.3)	3.0	0.0	(0.5)	
16	0.0	0.0	4.2	0.0	1.4	(0.5)	0.6	0.9	(0.0)	0.5	0.6	(1.8)	
17	0.2	0.0	0.8	0.0	0.7	0.0	(8.3)	0.0	0.0	2.1	4.9	(5.7)	
18	8.4	0.0	4.8	7.0	0.0	4.6	(0.4)	0.0	(0.5)	0.0	11.5	(4.4)	
19	0.2	0.0	0.2	1.8	0.0	0.4	0.0	0.3	(0.0)	0.0	2.2	(0.7)	
20	0.0	(2.0)	5.0	0.2	0.0	0.5	0.0	0.0	0.0	0.0	0.0	(1.6)	
21	0.0	3.5	0.0	1.1	0.0	1.4	0.0	0.0	2.7	0.0	0.2	(0.6)	
22	0.0	6.0	0.0	0.0	0.0	1.6	0.0	0.8	0.0	-0.0	0.1	(0.0)	
23	0.0	(0.2)	0.0	0.0	0.0	6.4	0.0	0.2	1.0	0.0	0.0	(0.7)	
24	0.0	3.2	0.0	0.0	0.0	8.3	(3.7)	0.0	1.0	0.0	0.0	0.0	
25	0.0	0.0	0.0	0.0	0.0	1.3	(0.0)	0.0	0.8	0.0	0.0	0.0	
26	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	29.9	0.0	0.0	0.0	
27	0.0	2.1	0.0	0.0	0.0	6.0	0.0	0.0	0.1	0.0	0.0	0.0	
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.2	0.2	0.2	0.0	
29	0.0	*****	0.0	27.5	0.0	0.0	0.0	0.0	2.2	14.2	0.0	0.0	
30	0.0	*****	0.0	1.1	0.0	0.0	43.1	0.0	0.1	1.7	0.0	0.0	
31	0.0	*****	0.0	*****	0.0	*****	0.2	0.0	*****	19.0	*****	0.0	
Totals	70.0	28.8	46.4	58.4	11.9	61.4	97.2	10.0	64.0	48.3	46.5	16.0	558.9
Average	54.0	43.0	44.0	43.0	57.0	49.0	55.0	72.0	54.0	54.0	63.0	56.0	644.0
% of Av	129.6	67.0	105.5	35.8	20.9	125.3	176.7	13.9	118.5	89.4	73.8	28.6	86.8

TABLE 15

Name: Pershore College Station Number 457134 Rainfall in mm 1991

Day No	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
1	5.5	0.0	0.0	1.0	(0.0)	0.0	0.0	0.0	0.0	0.0	3.8	0.0	
2	0.1	0.0	1.8	3.7	0.0	1.2	8.8	0.0	0.0	2.3	7.5	0.0	
3	0.8	0.0	0.0	2.4	3.4	(0.0)	0.0	0.0	0.0	0.0	2.6	0.0	
4	4.2	0.0	2.7	0.4	(0.0)	0.0	0.0	0.2	0.0	3.4	0.2	0.0	
5	1.1	0.0	3.7	0.0	0.0	3.5	5.3	4.3	0.0	4.2	0.0	0.0	
6	3.0	(0.0)	22.1	6.5	0.2	1.8	0.0	(0.0)	0.0	(0.0)	0.2	0.0	
7	2.8	8.4	8.5	0.3	(0.0)	0.0	0.4	2.7	0.0	4.0	0.7	0.0	
8	15.6	(1.3)	1.0	0.0	0.0	1.2	1.7	0.0	0.0	1.5	0.5	0.0	
9	22.7	(0.5)	2.6	0.0	0.0	0.6	0.0	0.0	0.0	0.8	0.3	0.0	
10	3.7	0.0	5.7	0.0	0.0	0.6	0.0	(0.0)	0.0	0.0	4.0	0.0	
11	1.9	0.2	0.0	0.0	0.0	1.0	1.3	0.0	0.0	0.3	0.0	0.0	
12	0.0	2.7	0.0	0.3	0.0	2.5	0.0	0.0	0.0	0.0	4.8	0.0	
13	0.0	0.0	0.1	0.0	1.0	3.7	0.0	0.0	0.0	0.2	0.4	0.0	
14	0.0	1.0	0.0	0.0	0.0	3.0	0.0	0.0	0.2	0.0	0.0	0.0	
15	0.0	0.4	0.3	0.0	3.9	6.0	0.6	0.0	1.0	1.5	0.0	2.8	
16	0.5	0.0	4.1	0.0	0.5	2.0	6.6	0.0	0.0	0.2	0.3	2.1	
17	0.2	1.1	0.3	(0.0)	0.1	1.2	14.6	0.0	0.0	0.6	2.5	3.7	
18	12.4	0.0	4.0	3.1	0.0	2.9	0.0	0.0	0.0	0.0	15.6	0.4	
19	0.0	0.9	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.7	2.3	
20	0.0	1.7	2.8	(0.0)	0.0	0.4	0.0	0.0	0.0	0.2	0.0	0.3	
21	0.0	1.7	(0.0)	1.2	0.0	0.2	0.0	0.0	2.8	0.0	0.1	0.0	
22	0.0	1.5	1.3	0.0	0.0	3.2	0.0	(5.9)	0.0	0.0	0.0	(0.0)	
23	0.0	0.1	0.0	0.0	0.0	9.7	0.6	(0.5)	0.8	0.0	0.0	(0.0)	
24	0.0	1.2	(0.0)	0.0	0.0	13.1	11.6	(0.0)	0.1	(0.0)	0.0	0.0	
25	0.0	0.0	(0.0)	(0.0)	0.0	0.4	4.0	0.0	10.1	0.9	(0.0)	0.0	
26	0.0	0.0	(0.0)	1.0	0.0	7.9	0.0	0.0	2.0	0.0	(0.0)	0.0	
27	0.1	0.7	0.0	0.0	(0.0)	0.3	0.0	0.0	0.3	0.0	(0.0)	0.0	
28	(0.0)	0.0	0.0	2.2	0.0	0.0	0.0	0.0	13.7	0.5	0.0	0.0	
29	0.0	*****	0.0	25.4	0.0	0.0	0.0	0.0	1.8	9.4	0.0	(0.0)	
30	(0.0)	*****	0.0	1.0	0.0	0.0	23.5	0.0	0.2	0.1	(0.0)	(0.0)	
31	0.7	*****	0.0	*****	0.0	*****	0.0	0.0	*****	14.9	*****	0.0	
Totals	75.3	23.4	61.0	48.8	9.1	66.4	79.0	13.6	33.0	45.0	44.2	11.6	510.4
Average	55.0	38.0	42.0	43.0	59.0	46.0	55.0	72.0	56.0	52.0	66.0	57.0	641.0
% of Av	136.9	61.6	145.2	113.5	15.4	144.3	143.6	18.9	58.9	86.5	67.0	20.4	79.6

TABLE 16

Name: Willenhall WRW Station Number 094320 Rainfall in mm 1991

Day No	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
1	5.5	0.3	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	(10.5)	0.0	
2	2.3	0.0	2.9	5.2	0.0	3.1	14.7	0.0	0.0	2.5	(6.7)	0.0	
3	3.5	0.0	0.0	1.5	2.6	0.2	0.1	2.4	0.0	(0.0)	1.1	0.0	
4	6.1	0.0	5.6	5.2	0.0	0.0	0.0	0.0	0.0	(2.9)	0.9	0.0	
5	0.4	0.0	2.0	2.3	0.0	2.9	(10.0)	6.5	0.0	(1.4)	0.0	0.0	
6	1.3	0.0	5.5	4.0	0.0	0.1	(0.0)	1.4	0.0	0.1	3.8	0.0	
7	2.8	7.0	9.4	7.9	0.4	0.0	0.0	1.4	0.0	2.4	3.6	0.0	
8	11.3	1.3	2.5	0.3	0.0	3.9	1.7	0.0	0.0	1.5	1.3	0.0	
9	19.6	1.3	0.1	0.0	0.0	1.4	0.0	0.1	0.0	0.6	0.2	0.0	
10	0.6	0.0	3.1	0.0	0.1	1.7	0.0	0.0	0.0	0.0	5.0	0.0	
11	4.4	0.0	0.2	0.0	0.0	2.7	5.4	0.0	0.0	1.2	0.0	0.0	
12	0.0	0.0	0.0	0.0	0.0	2.3	0.6	0.0	0.0	0.0	5.5	0.0	
13	0.0	0.0	0.6	0.0	0.8	0.4	0.0	0.0	0.0	0.0	0.3	0.0	
14	0.0	3.2	0.7	0.0	0.0	8.2	0.0	0.0	5.2	0.0	0.1	0.0	
15	0.0	1.9	1.2	0.0	3.1	8.5	0.6	0.0	2.3	1.5	0.0	2.6	
16	1.2	0.0	5.1	0.0	0.2	0.2	0.0	2.2	0.0	0.2	0.5	1.1	
17	0.2	0.0	3.4	0.4	0.1	0.0	7.3	0.0	0.0	3.5	2.5	5.8	
18	7.6	0.0	2.1	5.3	0.0	0.7	0.2	0.0	0.0	0.5	11.7	2.2	
19	0.1	0.1	0.0	2.1	0.1	0.2	0.0	0.0	0.0	0.0	0.6	1.8	
20	0.0	0.1	4.5	0.2	0.0	0.8	0.0	0.0	0.0	0.3	0.0	2.7	
21	0.0	5.1	0.1	5.4	0.0	1.1	0.0	1.0	3.5	0.0	0.7	3.4	
22	0.0	4.0	0.2	0.0	0.0	3.1	0.0	4.5	0.2	0.0	0.0	0.0	
23	0.0	0.4	0.0	0.0	0.0	0.3	0.2	11.4	1.4	0.0	0.0	0.6	
24	0.0	1.5	0.0	0.0	0.0	11.8	5.5	0.1	0.0	0.2	0.2	0.0	
25	0.0	0.0	0.0	0.2	0.0	0.9	1.1	0.0	0.2	0.5	0.4	0.0	
26	0.0	0.1	0.0	2.5	0.0	3.4	0.0	0.0	9.9	0.0	0.0	0.0	
27	0.0	2.4	0.0	0.0	0.0	1.7	0.0	0.0	1.8	0.0	0.0	0.0	
28	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0	31.8	0.1	1.2	0.0	
29	0.0	*****	0.0	35.2	0.0	0.0	0.0	0.0	1.3	6.9	0.0	0.0	
30	0.0	*****	0.0	0.8	0.0	0.0	30.9	0.0	0.0	0.6	0.0	0.0	
31	0.7	*****	0.0	*****	0.0	*****	0.0	0.0	*****	14.4	*****	0.0	
Totals	67.6	28.7	49.2	80.3	8.0	59.6	78.3	31.0	57.6	41.3	56.8	20.2	578.6
Average	58.0	46.0	46.0	46.0	61.0	48.0	60.0	73.0	59.0	57.0	68.0	61.0	683.0
% of Av	116.6	62.4	107.0	174.6	13.1	124.2	130.5	42.5	97.6	72.5	83.5	33.1	84.7

TABLE 17

Name: Edale Mill Station Number 106686 Rainfall in mm 1991

Day No	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
1	11.2	0.0	1.2	3.0	0.5	0.0	5.7	0.0	0.0	8.3	6.2	0.0	
2	3.0	0.1	3.2	14.2	0.1	5.0	1.0	0.0	0.0	3.5	7.5	0.2	
3	1.6	0.3	0.4	2.5	3.0	0.3	0.0	6.0	0.0	0.2	3.9	0.0	
4	5.9	0.5	7.8	11.4	0.4	0.1	0.0	0.0	0.0	2.2	26.2	0.0	
5	15.7	0.3	1.9	3.0	0.0	3.3	0.0	3.5	0.0	0.2	0.5	0.0	
6	4.1	(1.3)	0.8	8.1	1.4	1.8	4.7	1.0	0.0	(0.1)	23.3	0.0	
7	1.9	(3.6)	7.3	1.2	0.1	0.3	5.0	0.3	0.0	(7.0)	13.0	0.0	
8	12.7	(4.3)	7.0	0.4	0.0	6.8	5.9	1.3	0.0	0.2	5.2	0.0	
9	14.8	(1.3)	0.7	0.0	0.0	10.5	0.0	12.5	0.0	0.5	0.7	0.0	
10	1.4	0.3	3.0	0.0	0.1	0.8	0.0	14.0	0.0	(0.0)	14.3	0.1	
11	0.0	2.4	0.5	0.0	0.0	0.4	2.7	0.1	0.0	0.2	0.5	0.0	
12	0.0	(2.3)	0.0	1.0	0.0	4.8	0.2	0.0	0.0	0.0	6.1	0.0	
13	0.2	(0.0)	1.2	0.0	1.2	6.0	2.6	0.0	0.0	0.0	0.3	0.0	
14	0.0	7.4	0.2	0.0	0.0	4.9	1.0	0.0	3.2	0.0	2.6	0.1	
15	0.0	0.2	0.6	0.0	4.7	5.2	5.5	0.0	5.3	4.4	0.0	0.4	
16	0.9	0.0	6.7	0.0	0.4	2.5	0.0	5.3	1.3	11.3	0.0	0.2	
17	0.2	0.0	2.7	2.4	0.3	0.8	9.0	0.5	0.8	26.1	11.2	15.6	
18	10.3	0.0	10.1	5.5	0.6	14.3	4.0	0.0	0.0	0.0	12.6	26.0	
19	0.5	0.0	8.4	2.0	0.0	7.8	3.1	3.5	0.0	0.0	1.2	16.3	
20	0.0	0.0	6.3	0.6	0.0	1.6	0.4	0.0	0.0	0.0	0.0	37.8	
21	0.0	14.6	0.1	2.5	0.0	1.6	0.0	0.3	5.9	0.0	2.5	69.0	
22	0.0	10.6	2.1	0.0	0.0	1.3	0.9	2.5	1.2	0.0	0.0	1.4	
23	(1.0)	1.4	0.1	0.0	0.0	0.0	2.3	2.0	7.9	0.0	0.0	9.9	
24	(0.0)	0.0	0.0	0.0	0.7	8.3	14.6	0.0	0.3	0.3	0.6	0.2	
25	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.7	3.2	0.8	0.2	4.0	
26	0.0	0.0	0.0	0.0	0.0	8.2	0.0	0.0	3.9	0.1	0.5	0.0	
27	0.0	5.7	0.0	0.0	0.0	17.9	0.0	0.1	0.7	0.1	2.9	0.1	
28	0.3	0.0	0.1	(1.2)	0.0	(0.0)	0.0	0.2	11.8	0.4	0.0	0.0	
29	0.0	*****	0.0	(35.4)	0.0	3.3	0.0	0.0	0.9	14.1	0.0	(1.0)	
30	0.4	*****	0.0	3.1	0.0	0.0	0.0	0.0	2.2	2.0	0.0	(0.0)	
31	2.3	*****	0.0	*****	0.0	*****	0.6	0.0	*****	15.1	*****	0.1	
Totals	88.4	56.6	72.4	97.5	13.5	118.4	69.2	53.8	48.6	(97.1)	(142.0)	182.4	1039.9
Average	129.0	100.0	82.0	78.0	80.0	83.0	100.0	111.0	111.0	107.0	130.0	130.0	1241.0
% of Av	68.5	56.6	88.3	125.0	16.9	142.7	69.2	48.5	43.8	90.7	109.2	140.3	83.8

TABLE 18

Name: Spondon WRW Station Number 110518 Rainfall in mm 1991

Day No	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
1	0.7	0.0	0.5	(0.3)	(0.0)	0.0	0.0	0.0	0.0	0.0	(3.2)	0.0	
2	0.5	0.0	1.2	(5.1)	0.0	(1.7)	0.9	0.0	0.0	(1.6)	7.8	0.0	
3	2.5	0.0	0.0	(0.8)	2.4	(0.0)	0.0	4.8	0.0	0.0	0.8	0.0	
4	2.9	0.0	2.6	0.3	0.1	0.0	0.0	(0.1)	0.0	(1.2)	7.4	0.0	
5	0.9	0.0	2.6	2.1	0.0	(2.9)	(20.5)	(7.4)	0.0	0.0	0.0	0.0	
6	2.5	(0.5)	2.2	1.8	0.0	(9.2)	(0.3)	2.0	0.0	0.0	2.5	0.0	
7	2.1	(8.2)	5.8	(4.5)	2.6	0.0	(0.0)	0.0	0.0	0.1	2.3	0.0	
8	7.6	(0.7)	0.4	(0.1)	(0.0)	(5.0)	(2.2)	0.0	0.0	(0.0)	1.4	0.0	
9	19.3	(1.6)	0.0	(0.0)	0.0	(1.9)	(0.0)	0.0	0.0	0.4	0.0	0.0	
10	4.0	0.0	2.5	0.0	0.0	(0.3)	(0.0)	0.0	0.0	0.0	4.2	0.0	
11	2.2	(1.4)	0.8	0.0	0.0	(1.1)	(4.2)	0.0	0.0	0.9	(0.0)	0.0	
12	0.0	4.6	0.0	0.0	0.0	(2.1)	(0.8)	0.0	0.0	0.0	4.5	(0.0)	
13	0.0	0.0	0.0	0.0	0.0	(1.4)	(1.9)	0.0	0.0	0.0	0.0	0.0	
14	0.0	(1.8)	(0.0)	0.0	0.0	(3.4)	(0.0)	0.0	1.4	0.0	(0.4)	0.0	
15	0.0	0.0	0.6	0.0	1.2	(1.2)	0.0	0.0	(5.2)	4.1	(4.5)	0.0	
16	0.3	0.0	3.8	0.0	0.0	(0.0)	(0.0)	0.0	(0.4)	0.0	(0.0)	(0.0)	
17	0.0	0.0	1.9	0.0	0.0	0.0	(7.3)	(0.0)	0.0	4.4	(4.1)	9.5	
18	7.3	(0.0)	7.1	7.3	0.0	(1.2)	(0.0)	0.0	0.0	0.0	(9.9)	5.8	
19	0.0	0.0	0.9	3.6	0.0	(4.8)	0.0	0.0	0.0	0.0	(0.6)	1.3	
20	0.0	0.0	4.3	0.3	0.0	(2.0)	0.0	0.0	0.0	0.0	(0.0)	10.3	
21	0.0	4.0	0.0	0.3	0.0	(0.1)	0.0	0.0	3.3	0.0	(1.2)	12.9	
22	0.0	2.1	2.0	0.0	0.0	(6.6)	0.0	(0.3)	0.0	0.0	(0.0)	0.1	
23	0.0	(0.0)	(0.0)	0.0	0.0	(0.0)	2.5	(2.4)	(3.0)	0.0	0.0	4.2	
24	0.0	(2.4)	0.0	0.0	0.5	(12.3)	27.5	(0.0)	(0.0)	(0.2)	(0.0)	(0.0)	
25	0.0	0.0	0.0	0.0	0.6	(1.6)	0.1	0.0	0.0	(0.1)	0.0	0.0	
26	0.0	0.0	0.0	0.0	0.0	(4.0)	0.0	0.0	0.0	(0.0)	(0.0)	0.0	
27	0.0	(7.0)	0.0	0.0	0.0	(7.0)	0.0	0.0	(0.1)	(0.0)	0.0	0.0	
28	0.0	0.0	0.0	(0.0)	0.0	(0.0)	0.0	0.0	(28.3)	(0.0)	(1.6)	0.0	
29	0.0	*****	0.0	(22.5)	0.0	0.0	0.0	0.0	(3.4)	10.7	(0.0)	0.0	
30	0.0	*****	0.0	(1.2)	0.0	0.0	5.4	0.0	(0.2)	(0.1)	(0.0)	0.0	
31	0.0	*****	0.0	*****	0.0	*****	2.5	0.0	*****	(16.1)	*****	0.0	
Totals	52.8	(34.3)	39.2	50.2	7.4	69.8	76.1	17.0	45.3	(39.9)	(56.4)	44.1	532.5
Average	55.0	43.0	41.0	43.0	49.0	48.0	55.0	67.0	55.0	52.0	61.0	55.0	624.0
% of Av	96.0	79.8	95.6	116.7	15.1	145.4	138.4	25.4	82.4	76.7	92.5	80.2	85.3

TABLE 19

Name: Nanpantan Station Number 115174 Rainfall in mm 1991

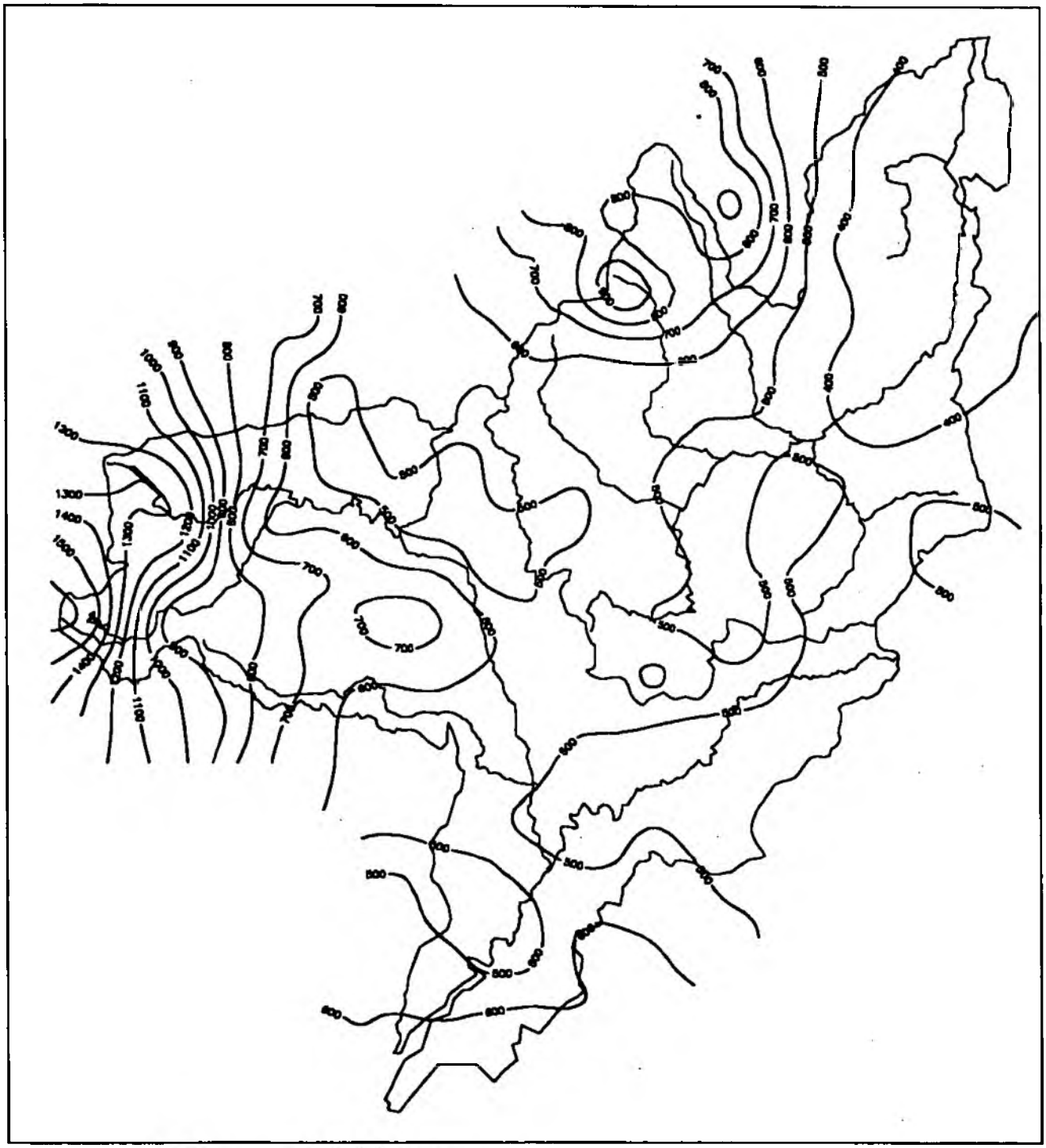
Day No	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
1	3.6	(0.2)	0.0	0.4	(0.1)	0.0	0.0	0.0	0.0	0.0	5.1	0.0	
2	0.5	(1.5)	1.3	5.8	(0.3)	2.0	1.2	0.0	0.0	0.0	4.9	0.0	
3	1.3	0.0	0.1	0.5	4.8	0.1	0.2	0.2	0.0	2.4	0.2	0.0	
4	1.5	0.0	3.5	5.3	0.1	0.5	0.0	0.0	0.0	0.1	8.6	0.0	
5	2.4	0.1	4.3	1.8	0.0	1.9	28.7	8.7	0.0	1.2	0.2	0.0	
6	2.0	0.0	1.0	2.5	0.6	0.1	0.2	0.3	0.0	0.1	0.9	0.0	
7	3.9	(7.6)	5.2	7.5	1.2	0.0	0.1	2.6	0.0	0.4	3.1	0.0	
8	12.5	(0.8)	0.6	1.5	0.0	3.5	0.6	0.0	0.0	0.4	(1.3)	0.0	
9	21.2	(1.2)	(0.0)	0.0	0.0	0.4	0.0	0.0	0.0	1.2	(0.0)	0.0	
10	0.4	(0.0)	3.1	0.0	0.0	2.8	0.0	0.0	0.0	0.2	(5.8)	0.0	
11	7.0	(0.1)	0.5	0.0	0.0	3.3	0.2	0.0	0.0	0.8	(0.0)	0.0	
12	0.0	(4.8)	0.0	0.0	0.0	2.1	0.1	0.0	0.0	0.0	(4.7)	0.0	
13	0.0	(0.0)	0.0	0.0	0.0	1.6	26.8	0.0	0.0	0.1	0.1	0.0	
14	0.0	(2.3)	1.6	0.0	0.0	8.6	0.0	0.0	4.1	0.0	0.2	0.0	
15	0.0	0.7	(0.2)	0.0	5.8	5.1	0.0	0.0	1.8	2.2	0.1	0.5	
16	0.5	0.0	(9.4)	0.0	0.7	2.4	0.0	3.0	0.4	2.0	0.0	0.5	
17	0.2	0.0	0.2	0.0	1.8	(0.0)	(5.1)	0.0	0.0	2.0	5.2	12.9	
18	8.4	0.0	5.4	7.6	0.0	1.6	0.2	0.0	0.0	0.0	5.9	4.1	
19	0.2	0.0	0.4	5.2	0.0	2.5	0.0	0.0	0.0	0.0	3.4	2.5	
20	0.2	0.2	4.7	0.6	0.0	2.8	0.0	0.0	0.0	0.0	0.0	7.2	
21	0.0	2.8	0.0	0.0	0.0	0.1	0.0	0.0	4.3	0.0	0.3	2.9	
22	0.0	4.5	1.8	0.0	0.0	5.0	0.0	1.6	0.3	0.0	(0.0)	0.0	
23	0.1	0.2	(0.0)	0.1	0.6	0.2	1.9	6.8	2.2	0.0	0.0	0.9	
24	0.0	1.6	0.0	0.0	0.2	9.1	11.5	0.0	0.1	0.4	0.1	0.0	
25	0.0	0.2	0.0	0.0	0.0	0.9	(0.0)	0.0	0.1	0.6	0.1	0.1	
26	0.0	0.1	0.0	0.0	0.0	7.3	0.0	0.0	0.8	0.0	0.0	0.0	
27	0.0	6.2	0.0	0.0	0.0	7.6	0.0	0.0	0.1	0.0	0.2	0.0	
28	0.0	0.2	0.0	0.1	0.0	0.2	0.0	0.0	30.7	0.0	0.7	0.0	
29	0.0	*****	0.0	23.2	0.1	0.0	0.0	0.0	5.3	11.8	0.0	0.0	
30	0.0	*****	0.0	3.5	0.0	0.0	3.5	0.0	0.0	0.2	0.0	0.0	
31	1.1	*****	0.0	*****	0.0	*****	0.2	0.0	*****	17.2	*****	0.0	
Totals	67.0	35.3	43.3	65.6	16.3	71.7	80.5	23.2	50.2	(43.3)	(50.9)	31.6	578.9
Average	62.0	48.0	51.0	50.0	57.0	53.0	60.0	74.0	58.0	59.0	69.0	61.0	702.0
% of Av	108.1	73.5	84.9	131.2	28.6	135.3	134.2	31.4	86.6	73.4	73.8	51.8	82.5

TABLE 20

Name: Keadby P Sta Station Number 128856 Rainfall in mm 1991

Day No	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
1	4.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0	
2	2.4	0.0	1.0	6.1	0.5	1.5	2.4	0.0	0.0	0.7	1.2	0.0	
3	0.1	0.0	0.0	0.0	7.1	1.8	0.0	0.0	0.0	0.0	0.8	0.0	
4	2.4	0.0	4.0	3.7	0.0	0.0	0.0	0.0	0.0	1.7	4.0	0.0	
5	2.1	0.3	0.8	0.0	0.0	0.8	0.0	5.0	0.0	0.7	0.0	0.0	
6	3.5	1.9	0.7	1.6	0.2	0.0	0.0	0.2	0.0	0.0	2.0	0.0	
7	0.3	2.4	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
8	7.6	4.4	0.0	0.2	0.0	2.0	1.3	0.0	0.0	0.0	3.4	0.0	
9	8.6	3.1	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	
10	0.0	3.2	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	
11	0.0	0.0	0.1	0.0	0.0	0.6	0.5	0.0	0.0	0.0	0.0	0.0	
12	0.0	3.3	0.0	0.0	0.4	0.0	0.0	0.0	0.0	1.7	2.4	0.0	
13	0.0	0.0	0.0	0.0	0.2	0.5	0.0	0.0	0.0	0.0	0.0	0.0	
14	0.0	(4.6)	0.6	0.0	0.2	2.5	0.0	0.0	0.6	0.0	0.0	0.0	
15	0.0	(0.1)	1.3	0.0	0.0	4.6	0.9	0.0	2.9	3.6	0.0	0.0	
16	0.2	0.0	3.8	0.0	1.9	0.0	0.0	2.0	0.0	0.8	0.0	0.0	
17	0.2	0.0	2.4	0.0	0.0	0.0	4.3	0.0	0.0	1.1	7.1	4.5	
18	3.8	0.0	3.8	5.1	0.0	4.7	1.0	0.0	0.0	0.0	6.8	2.1	
19	0.0	0.0	5.1	4.5	0.0	3.4	0.0	0.0	0.0	0.0	0.9	3.8	
20	0.1	0.1	2.5	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	9.6	
21	0.0	1.6	0.3	2.2	0.0	1.5	0.0	0.0	1.4	0.0	1.5	2.8	
22	0.0	0.8	2.7	0.0	0.0	(1.0)	0.0	1.0	0.7	0.0	0.0	0.1	
23	0.1	0.0	0.3	0.0	0.6	0.0	1.0	0.0	0.5	0.0	0.0	0.8	
24	0.0	0.0	0.0	0.0	0.0	(5.1)	17.8	0.0	0.0	0.1	0.1	0.0	
25	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.3	0.3	0.0	
26	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	15.5	0.0	0.2	0.0	
27	0.0	21.7	0.0	0.0	0.0	0.1	0.0	0.0	2.3	0.0	0.0	0.0	
28	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	24.5	0.0	0.0	0.0	
29	0.0	*****	0.0	10.3	0.1	0.5	0.0	0.0	3.5	8.4	0.0	0.1	
30	0.0	*****	0.0	2.6	0.0	0.0	0.0	0.0	0.2	0.2	0.0	0.0	
31	0.6	*****	0.0	*****	0.0	*****	0.0	0.0	*****	8.9	*****	0.0	
Totals	36.2	47.9	34.2	36.3	11.2	33.9	29.2	8.2	52.1	(28.2)	(34.1)	23.8	375.3
Average	51.0	42.0	38.0	42.0	46.0	49.0	60.0	72.0	50.0	49.0	64.0	48.0	611.0
% of Av	71.0	114.0	90.0	86.4	24.3	69.2	48.7	11.4	104.2	57.6	53.3	49.6	61.4

FIGURE 19
MAP OF SEVERN-TRENT 1991 ANNUAL RAINFALL



—— 700 —— Rainfall in mm

FIGURE 20
1991 RAINFALL AS A PERCENTAGE OF THE LONG TERM AVERAGE

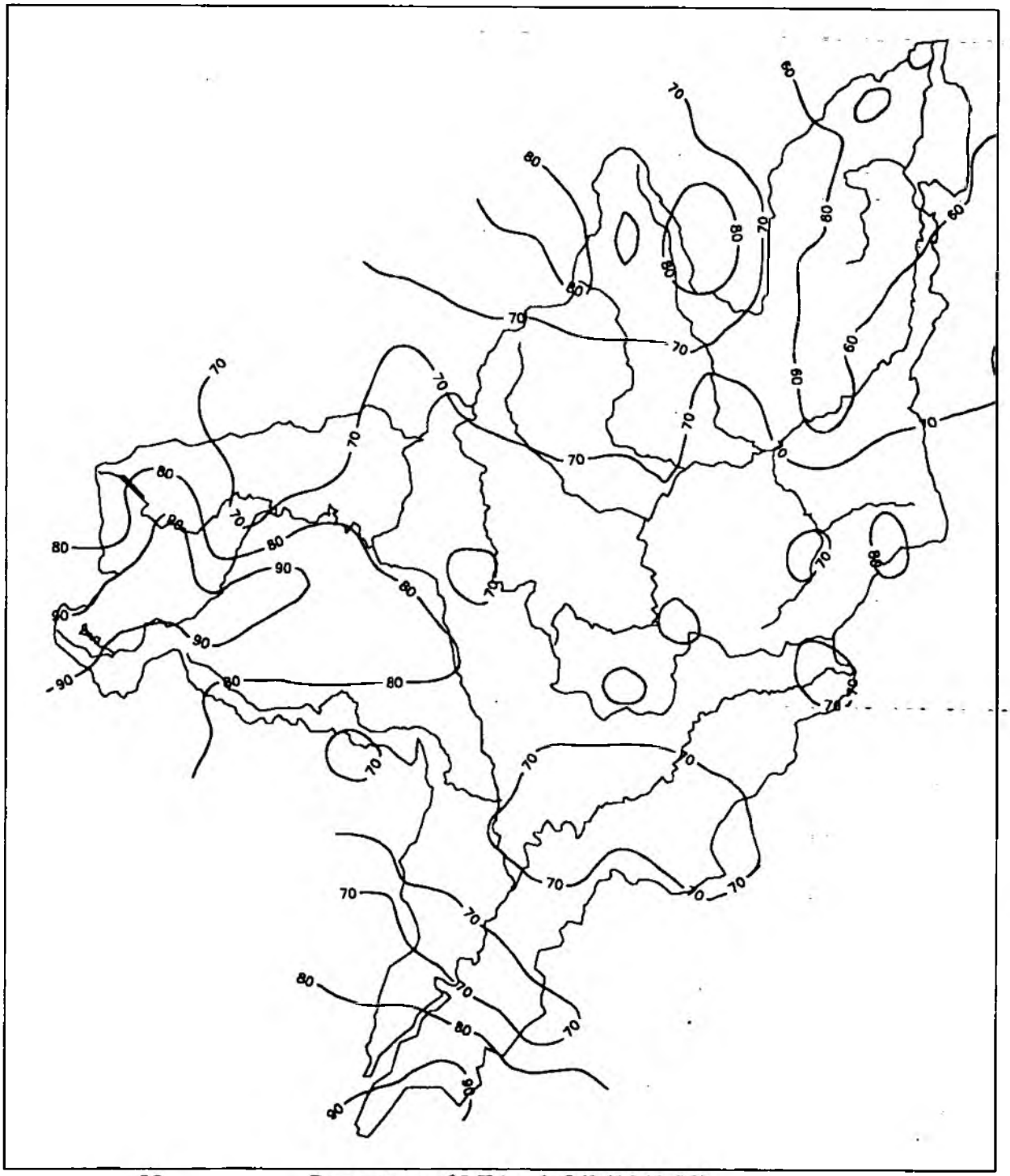


TABLE 21

SEVERN - TRENT REGION : AREAL RAINFALL 1991

AREA		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
SEVERN-TRENT	mm	74	36	56	66	12	74	80	23	57	54	69	38	639
	%LTA	107	69	107	127	18	132	123	28	84	83	87	55	83
SEVERN BASIN	mm	85	40	68	73	12	80	91	24	56	62	79	32	702
	%LTA	166	71	127	137	18	143	141	29	79	89	95	42	87
WELSH MOUNTAINS	mm	148	105	115	139	9	123	101	58	75	124	176	127	1,302
	%LTA	106	99	128	163	10	160	111	51	64	100	126	86	98
SHROPSHIRE PLAIN	mm	75	29	62	58	13	60	93	20	35	44	62	17	568
	%LTA	121	61	126	124	19	113	144	26	54	72	84	29	78
MID-SEVERN & TEME	mm	86	37	76	72	10	76	99	29	52	63	65	26	690
	%LTA	126	69	143	136	15	140	159	35	76	97	85	37	89
AVON TO EVESHAM	mm	60	23	42	57	15	73	82	12	60	42	52	12	528
	%LTA	103	51	90	128	25	144	141	16	105	73	78	22	79
LOWER SEVERN	mm	80	32	67	60	13	80	80	16	55	58	81	16	640
/ESTUARY	%LTA	132	68	156	130	22	154	141	21	91	102	104	23	90
TRENT BASIN	mm	63	33	44	59	11	68	69	22	57	47	59	44	576
	%LTA	96	66	88	117	18	123	106	28	91	76	80	70	78
UPPER TRENT	mm	55	28	45	55	6	85	84	26	41	43	59	46	574
	%LTA	83	55	91	108	9	149	126	33	60	67	79	67	75
TAME	mm	69	28	47	70	11	59	97	26	66	46	55	18	595
	%LTA	114	59	94	143	18	114	154	34	113	79	78	29	83
DOVE	mm	72	35	62	68	8	82	71	26	47	69	80	97	719
	%LTA	85	53	102	109	12	118	87	27	57	87	87	109	77
DERWENT	mm	81	52	63	74	14	84	73	22	50	72	98	98	781
	%LTA	83	67	92	109	19	121	91	24	59	87	94	100	78
SOAR	mm	66	36	35	57	14	73	51	24	72	39	49	29	546
	%LTA	111	77	74	122	25	147	87	35	131	69	74	50	82
LOWER TRENT	mm	47	32	26	39	11	54	35	10	59	31	41	28	414
	%LTA	88	71	61	92	23	117	64	16	118	65	65	57	68

5. GROUNDWATER

5.1 GROUNDWATER HYDROGRAPHS FOR 1991

From the 352 groundwater observation boreholes situated in the region, 12 sample sites have been selected. For each site a groundwater hydrograph has been produced showing groundwater levels from the start of record to the end of 1991.

Groundwater levels for 1991, have in general, followed a continuing downward trend which began in 1988/89, with most sites exhibiting levels below their long term averages. Groundwater recharge, following the 1990/91 winter was minimal, with only modest recharge in some of the sites to the west of the region.

Within the sites on the Sherwood Sandstone aquifers, only Anthony's Cross shows a level higher at the end of 1991 than at the start of the year. Water levels at Swinnow Wood, Hazel Hill, Check Hill and Burcott Lane were at their lowest levels for twenty years. The borehole at Weeford Flats became dry in 1991 for the first time since the drought year of 1976. The two sites on the limestone aquifers, at Two Dale Barn (Carboniferous) and Hodhill (Lower Magnesian), demonstrate the annual fluctuations in levels typical of this strata. Although masked by these annual fluctuations, both reveal an overall trend of falling levels.

Borehole	*Groundwater Unit*	
Swinnow Wood	Doncaster	Figure 22
Morris Dancers	Clumber	Figure 23
Hazel Hill	Nottingham	Figure 24
Sunnybank Farm	Greatgate	Figure 25
Weeford Flats	Shenstone	Figure 26
Hodhill Farm	Bolsover	Figure 27
Two Dale Barn	Alstonfield	Figure 28
Heathlanes 23	Radmoor	Figure 29
Check Hill	Wombourne	Figure 30
Burcott Lane	Bromsgrove	Figure 31
Shrawley	Astley	Figure 32
Anthony's Cross	Oxenhall	Figure 33

A complete catalogue of observation boreholes within the region, is given in the catalogue section, Table 26.

FIGURE 21.

LOCATION MAP FOR EXAMPLE GROUNDWATER SITES

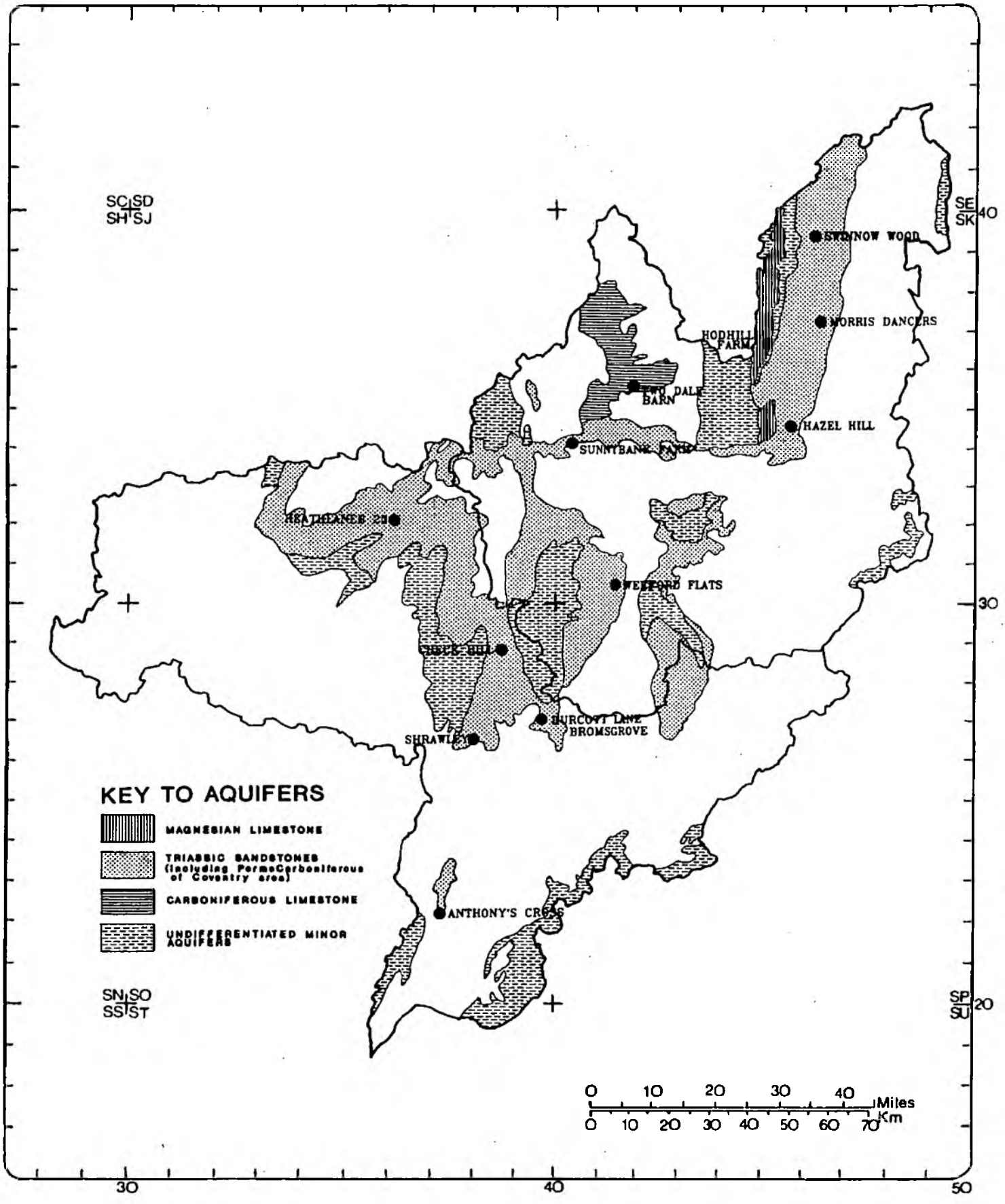
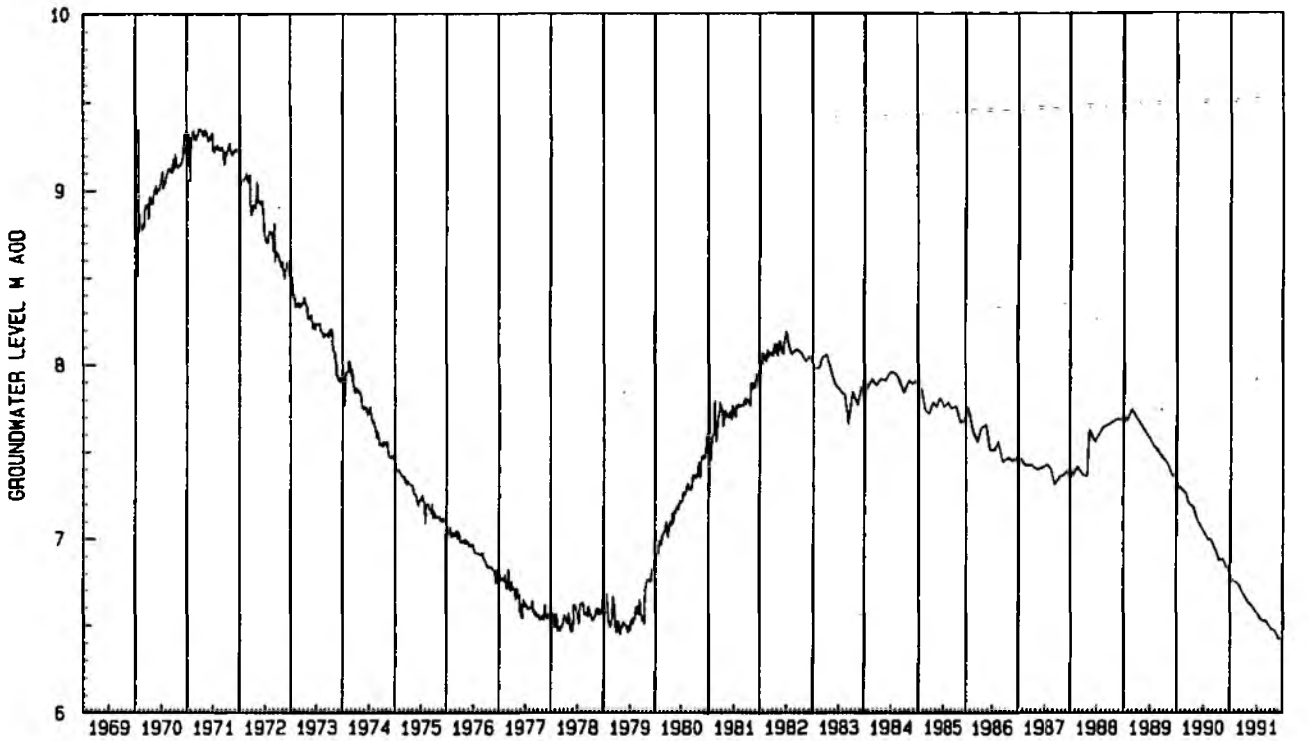
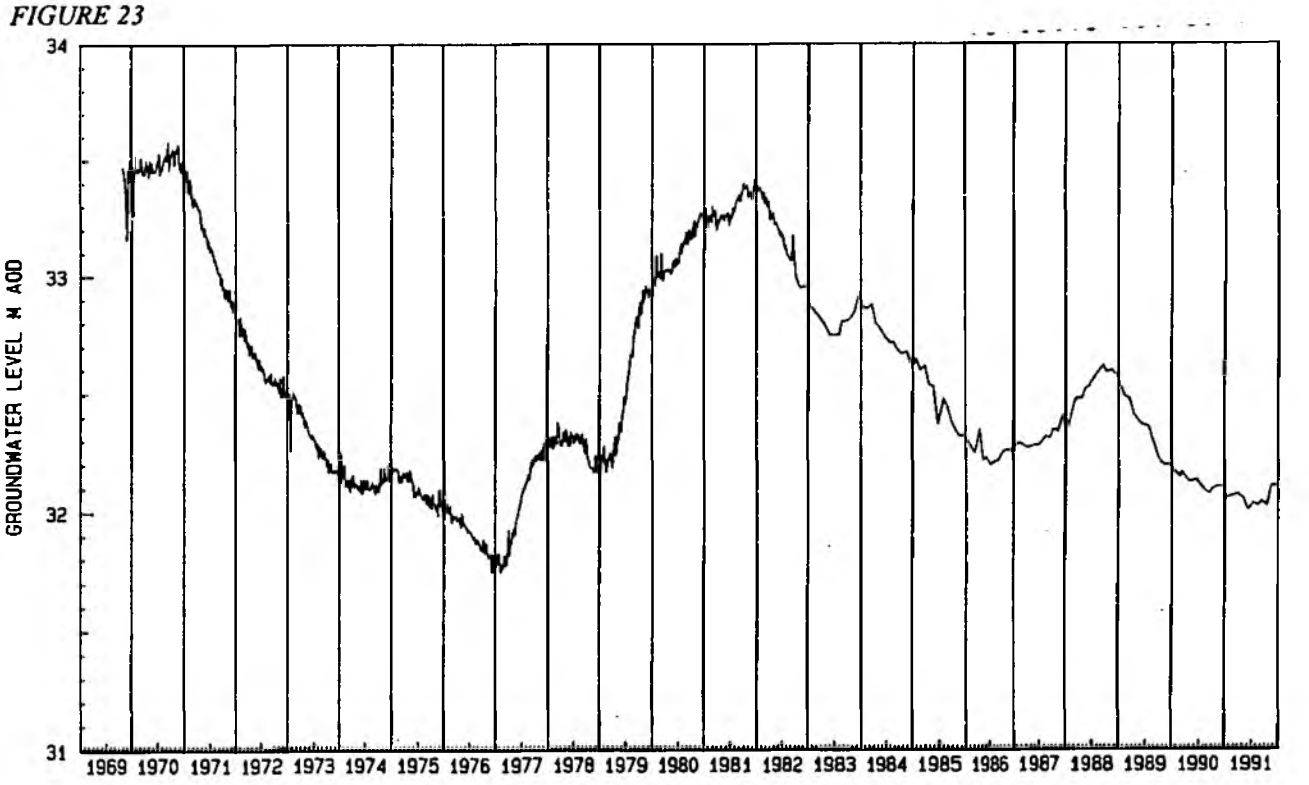


FIGURE 22.



NRA	SEVERN TRENT REGION	GROUNDWATER HYDROGRAPH		
		SWINNOW WOOD	SK63079355	1716

FIGURE 23



NRA	SEVERN TRENT REGION	GROUNDWATER HYDROGRAPH		
		MORRIS DANCERS	SK64487257	1730

FIGURE 24

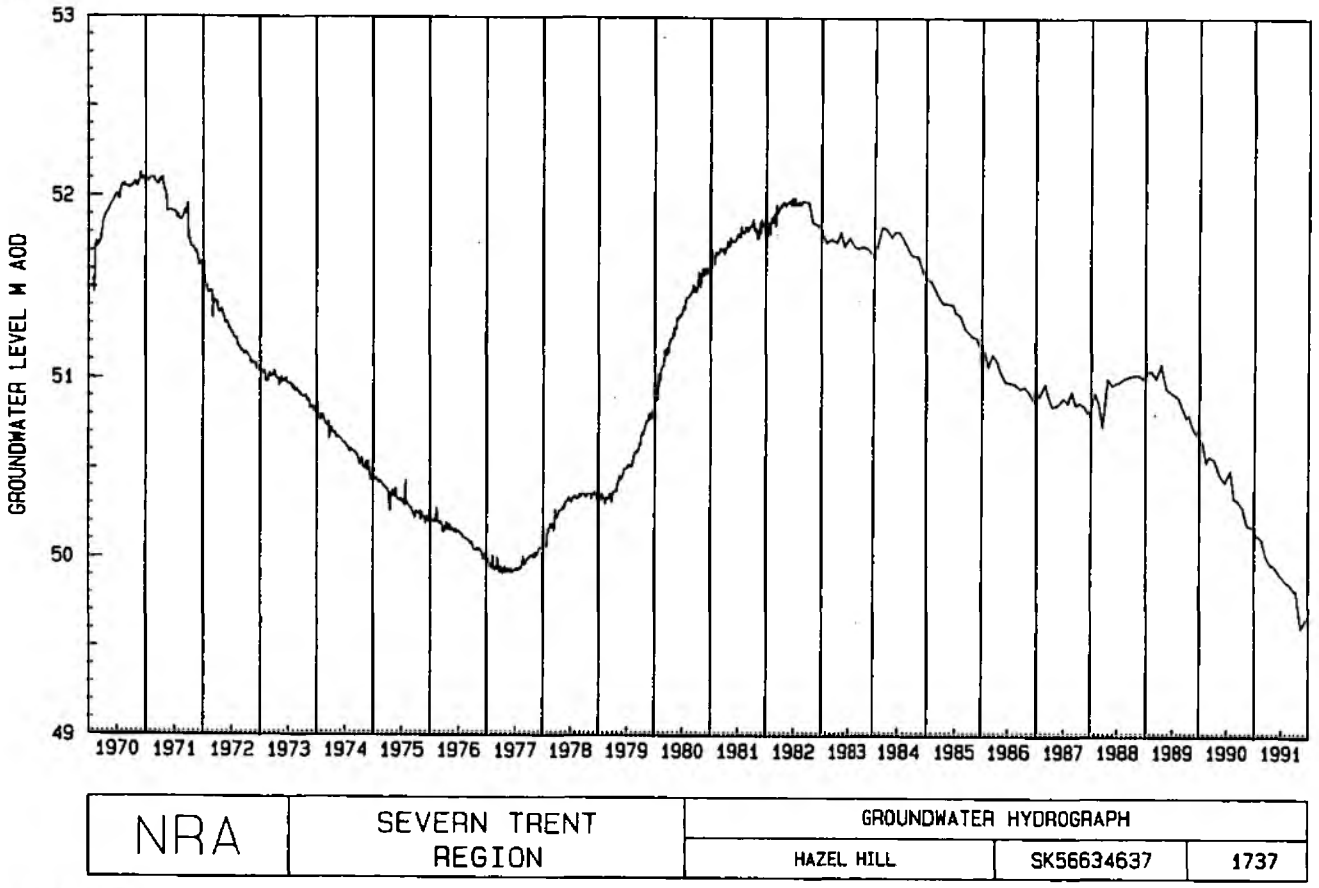


FIGURE 25

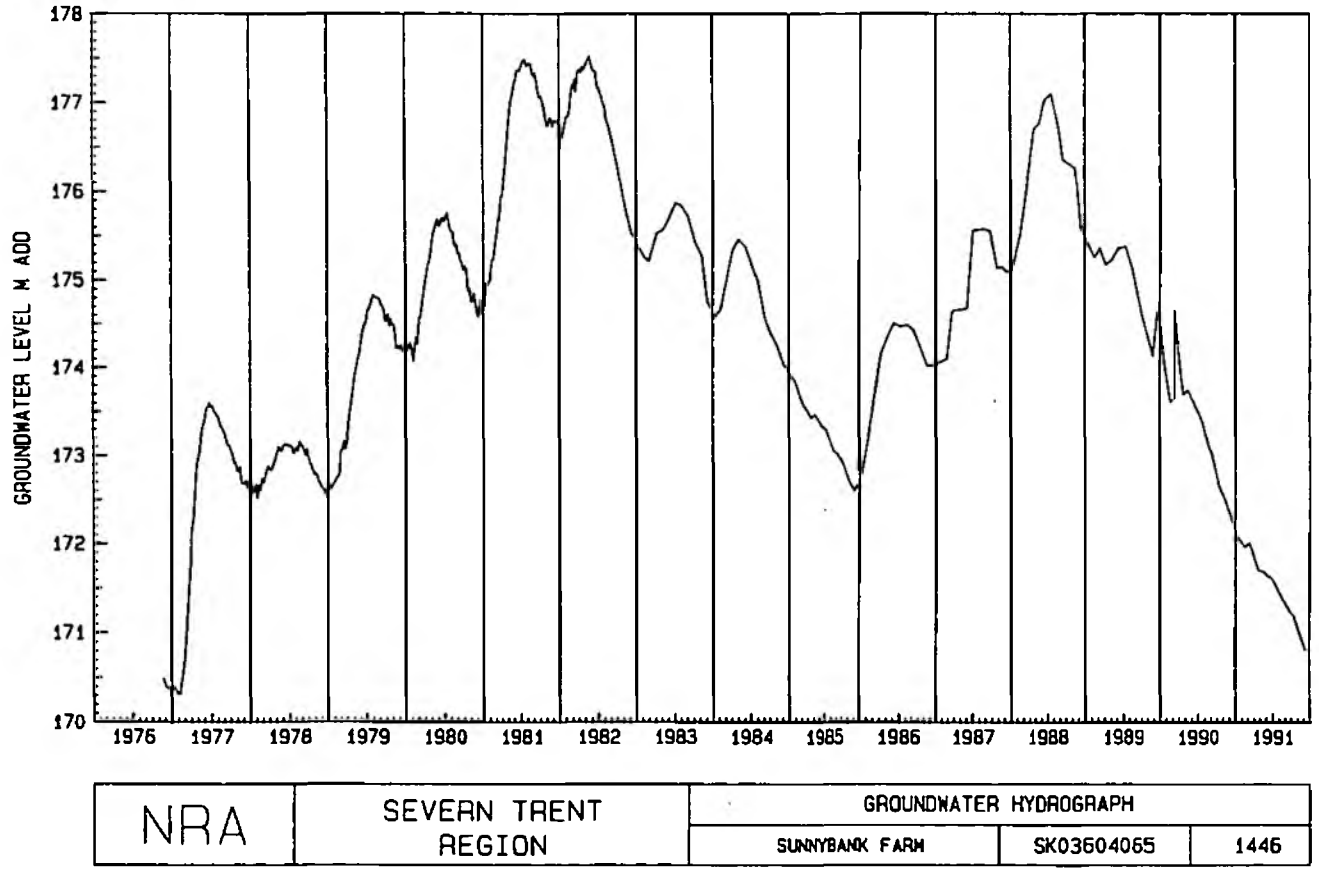
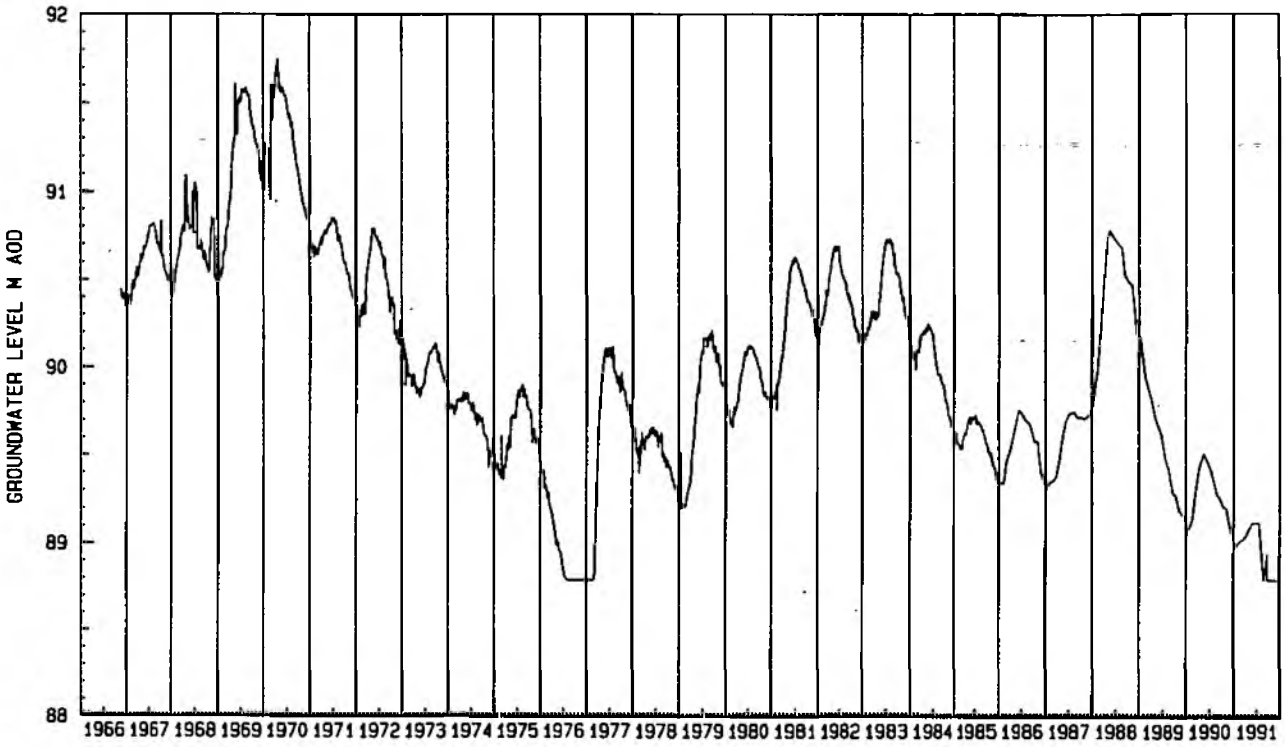
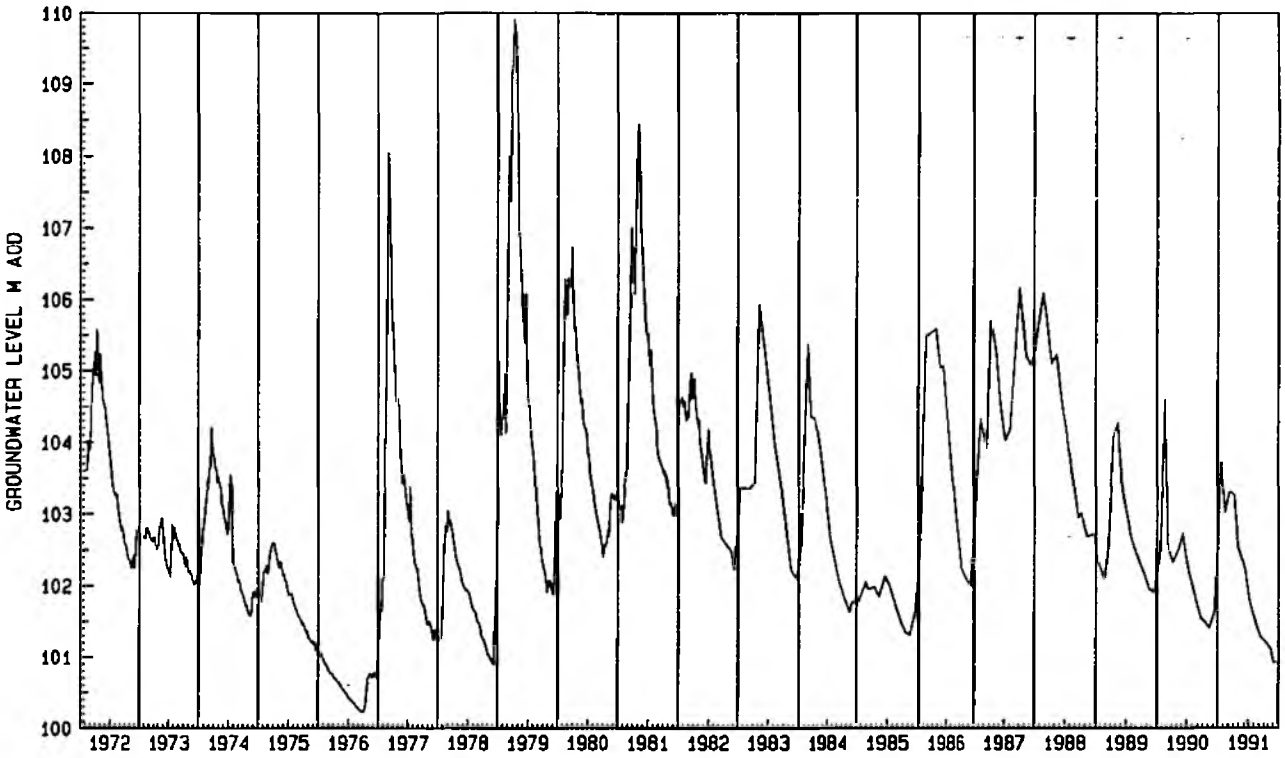


FIGURE 26



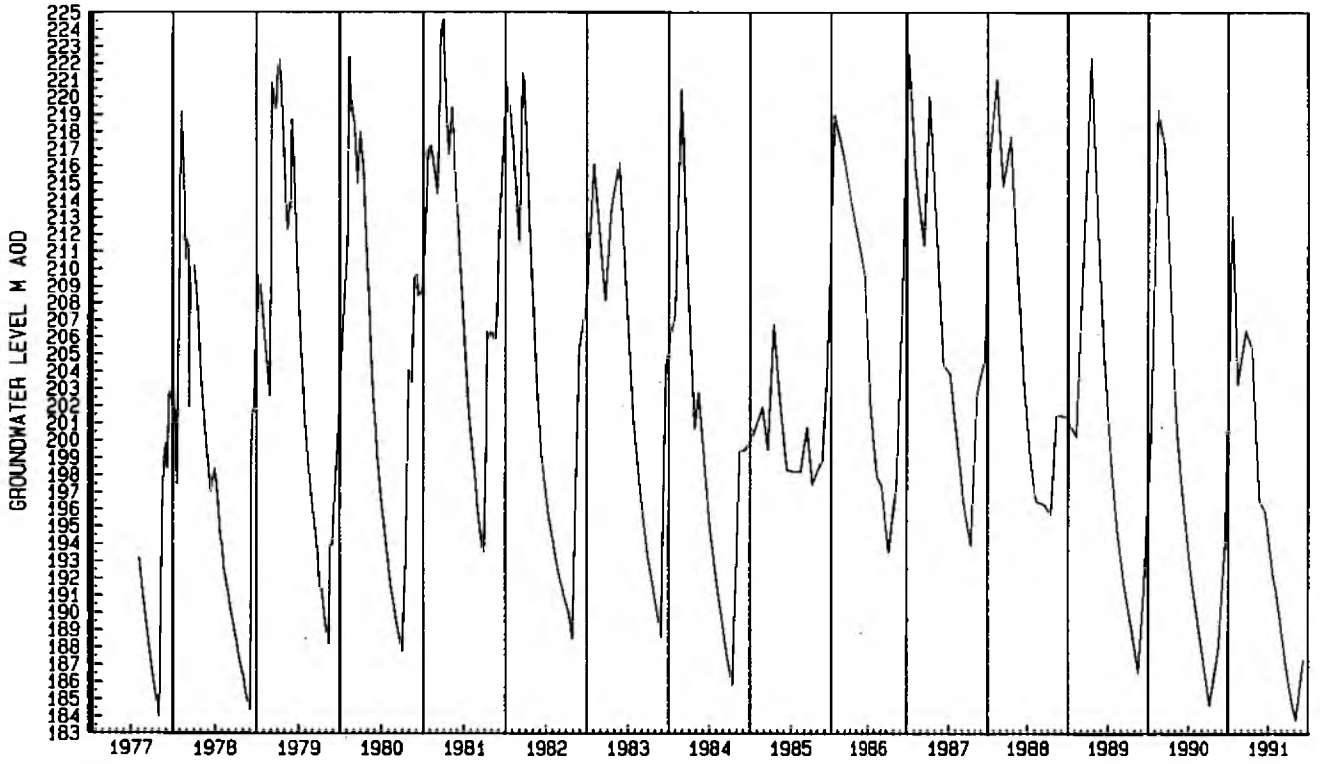
NRA	SEVERN TRENT REGION	GROUNDWATER HYDROGRAPH		
		WEEFORD FLATS	SK14400464	1200

FIGURE 27



NRA	SEVERN TRENT REGION	GROUNDWATER HYDROGRAPH		
		HODHILL FARM	SK52076635	1766

FIGURE 28

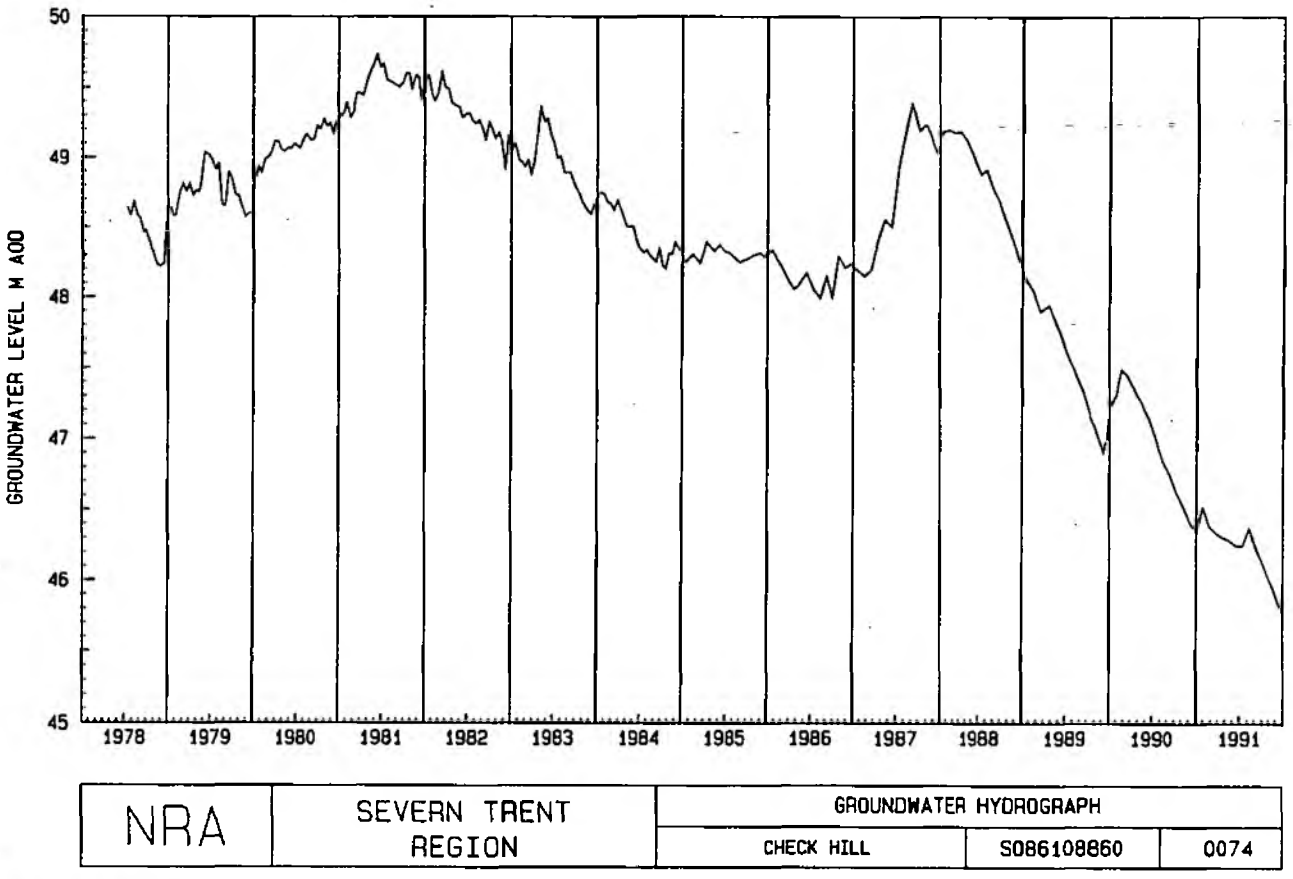


NRA	SEVERN TRENT REGION	GROUNDWATER HYDROGRAPH		
		TWO DALE BARN	SK19405580	1437

FIGURE 29

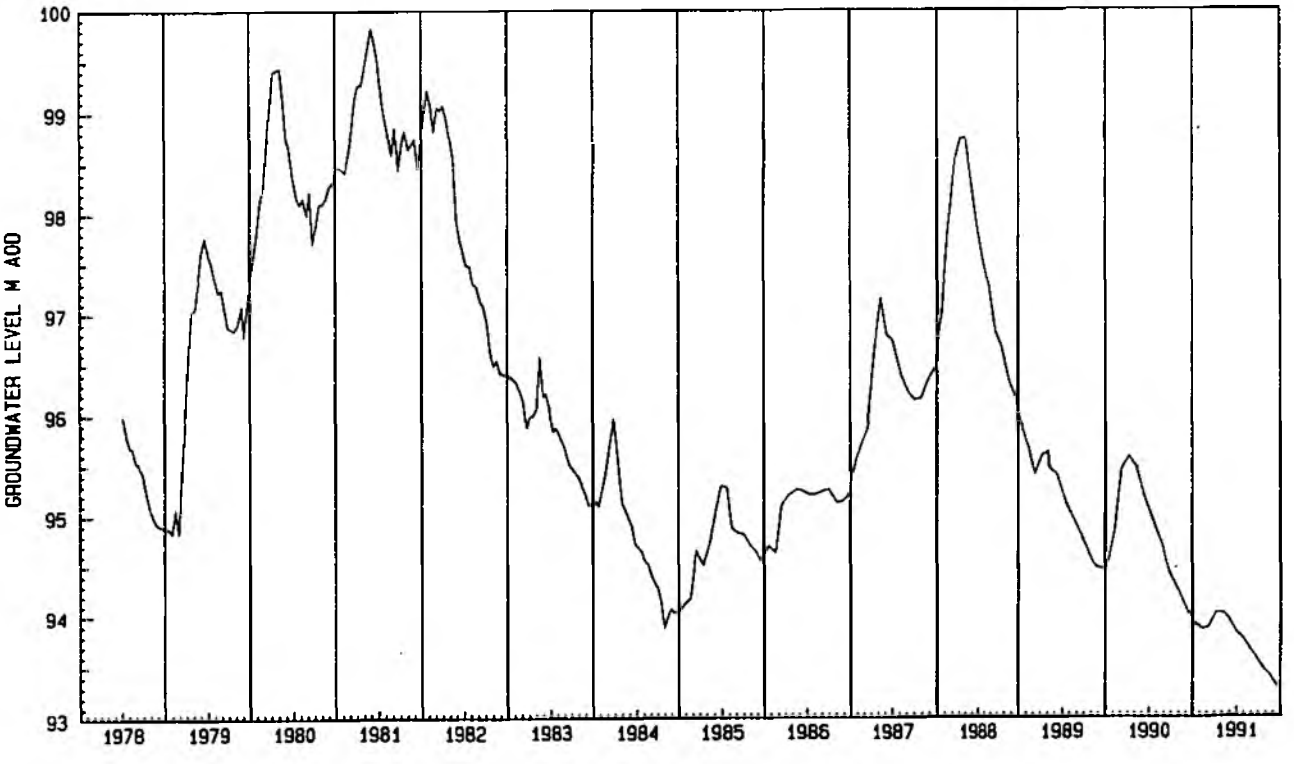
NRA	SEVERN TRENT REGION	GROUNDWATER HYDROGRAPH		
		HEATHLANES 23	SJ61952105	0169

FIGURE 30



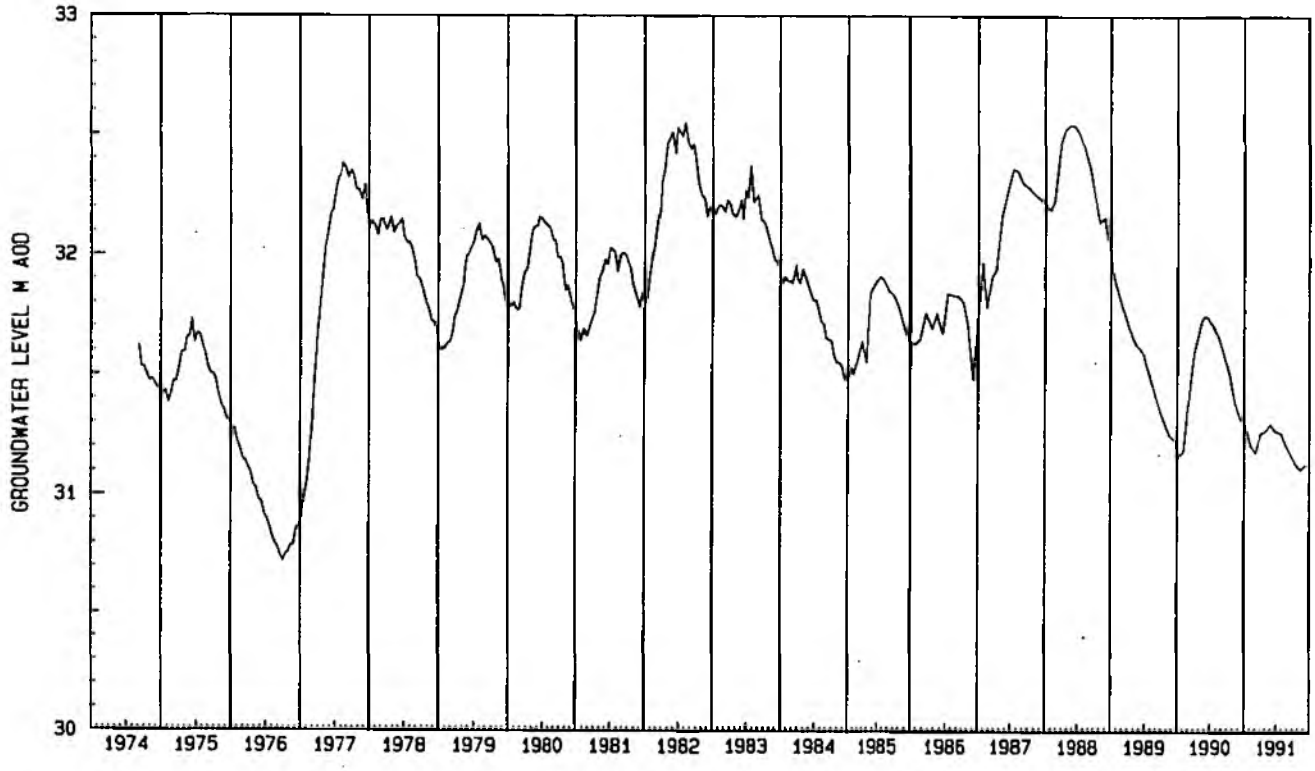
NRA	SEVERN TRENT REGION	GROUNDWATER HYDROGRAPH		
		CHECK HILL	SO86108860	0074

FIGURE 31



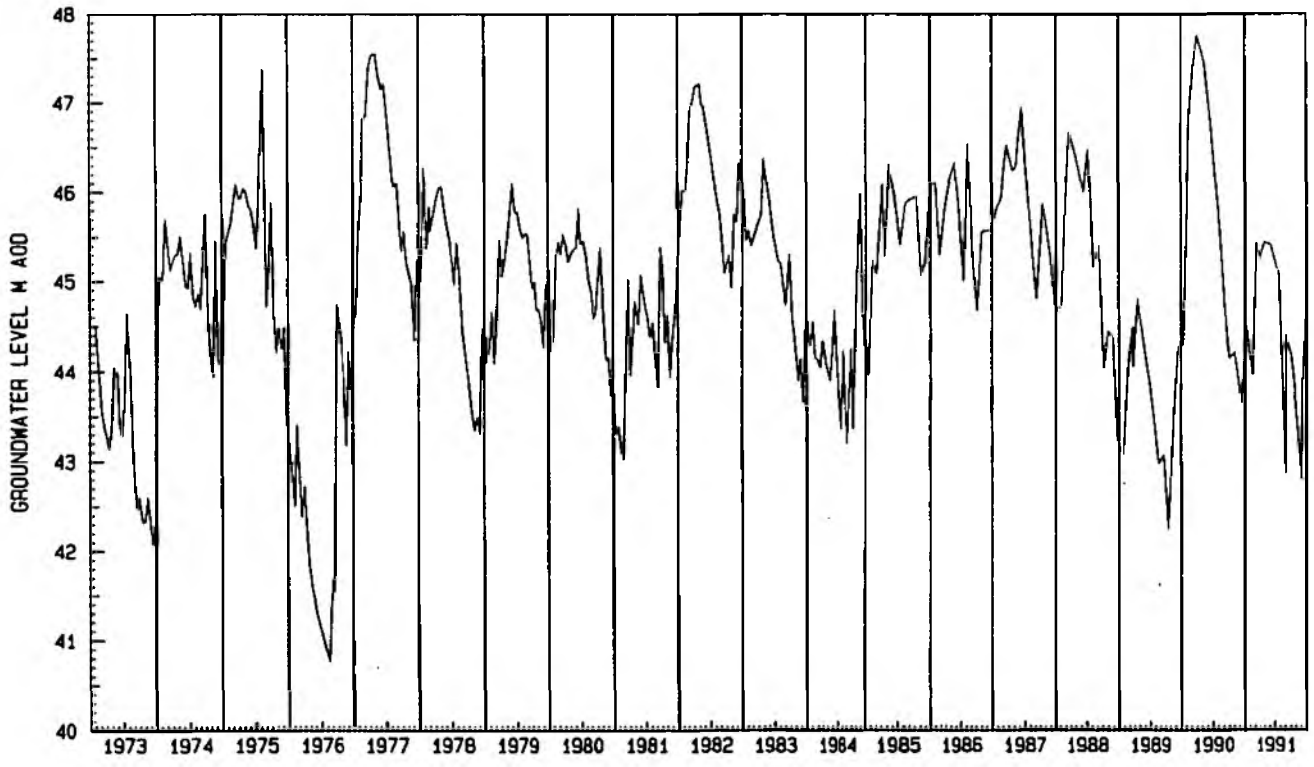
NRA	SEVERN TRENT REGION	GROUNDWATER HYDROGRAPH		
		BURCOTT LANE BROMSGROVE	SO96807160	0059

FIGURE 32



NRA	SEVERN TRENT REGION	GROUNDWATER HYDROGRAPH		
		SHRAWLEY NO.2	S079906620	0364

FIGURE 33



NRA	SEVERN TRENT REGION	GROUNDWATER HYDROGRAPH		
		ANTHONY'S CROSS	S072002350	0004

6. MISCELLANEOUS DATA

6.1 Soil Moisture and Evapotranspiration

The soil moisture deficits during 1991 for the Severn and Trent basins and their sub-areas are shown in Figures 34 and 35. The values for 1991 are slightly lower than the preceeding dry years of 1989 and 1990, and the maximum values were only reached later in the summer due to the wet months of June and July. The upland areas show significantly lower values as would be expected, with a return to field capacity before the other areas.

The monthly potential and actual evapotranspiration for the Severn and Trent basins are shown in Figures 36 and 37. Potential evapotranspiration is that which would theoretically evaporate and transpire from a surface covered in short grass, assuming moisture was always available. Actual evapotranspiration, on the other hand, takes into account the type of land use and the amount of moisture actually available.

The graphs show how evapotranspiration increases in the spring and reaches a peak in summer. What is clearly shown for 1991 is the difference between the actual and potential for the two basins. The below average rainfall and high soil moisture deficits, reduced actual evapotranspiration to a fraction of the potential in the dry Trent basin.

6.2 Water Temperature

Water temperature data is collected at eight river level sites, using temperature sensors that are interfaced to the TG1150 on-site loggers. This information is stored as 15 minute values within the on-site logger and retreived automatically with the level and flow data.

Annual plots of mean daily water temperature for two of these sites are shown in Figures 38 and 39. The basic pattern is as would be expected with temperature increasing during the spring with the peak in mid-summer. In 1991 the warm month of May is a noticeable feature, and at the other extreme the very cold periods in February and December.

FIGURE 34

Soil Moisture Deficit
Severn Catchment 1991

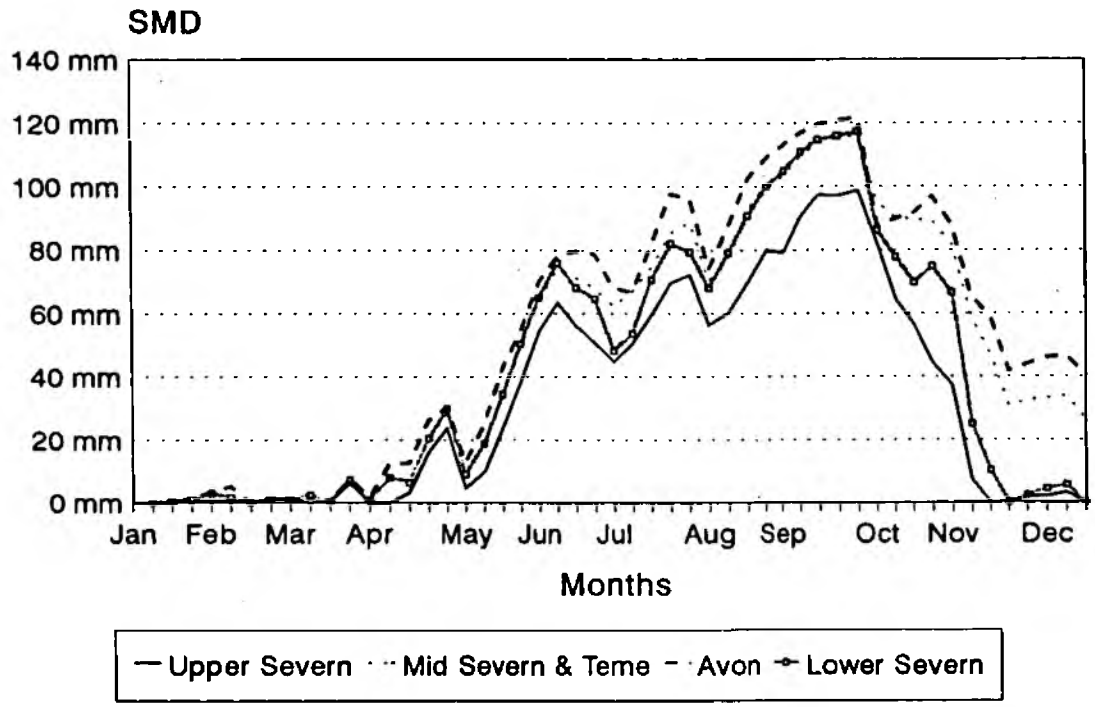


FIGURE 35

Soil Moisture Deficit
Trent Catchment 1991

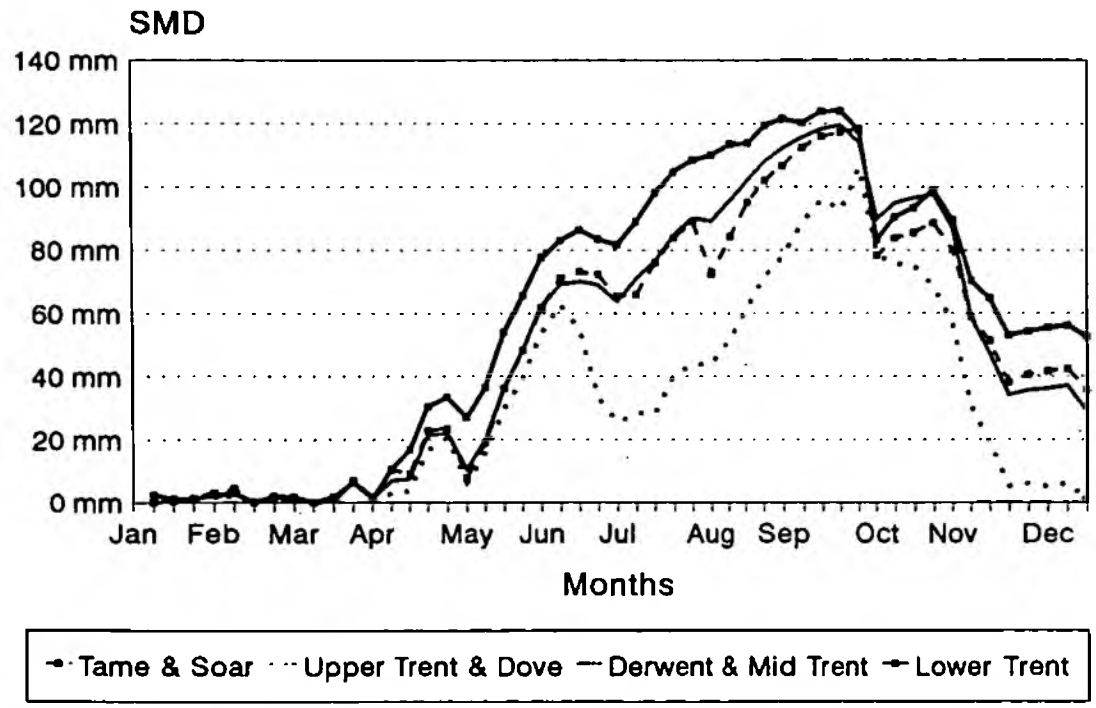


FIGURE 36

ACTUAL AND POTENTIAL EVAPOTRANSPIRATION
SEVERN CATCHMENT

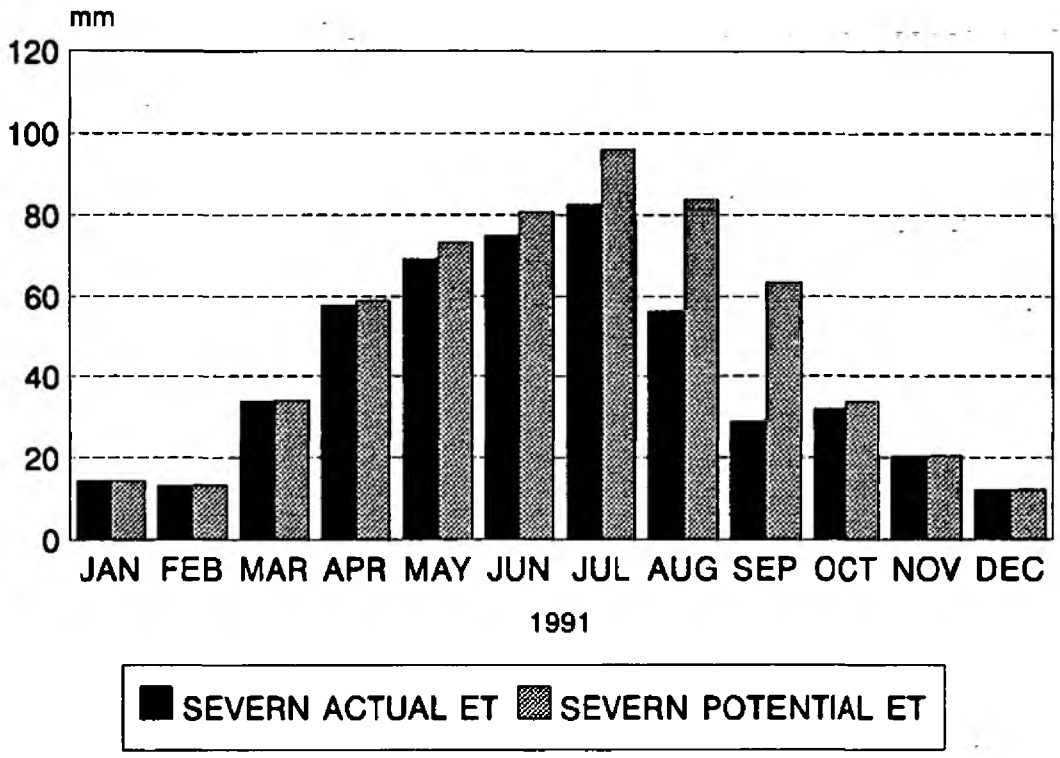


FIGURE 37

ACTUAL AND POTENTIAL EVAPOTRANSPIRATION
TRENT CATCHMENT

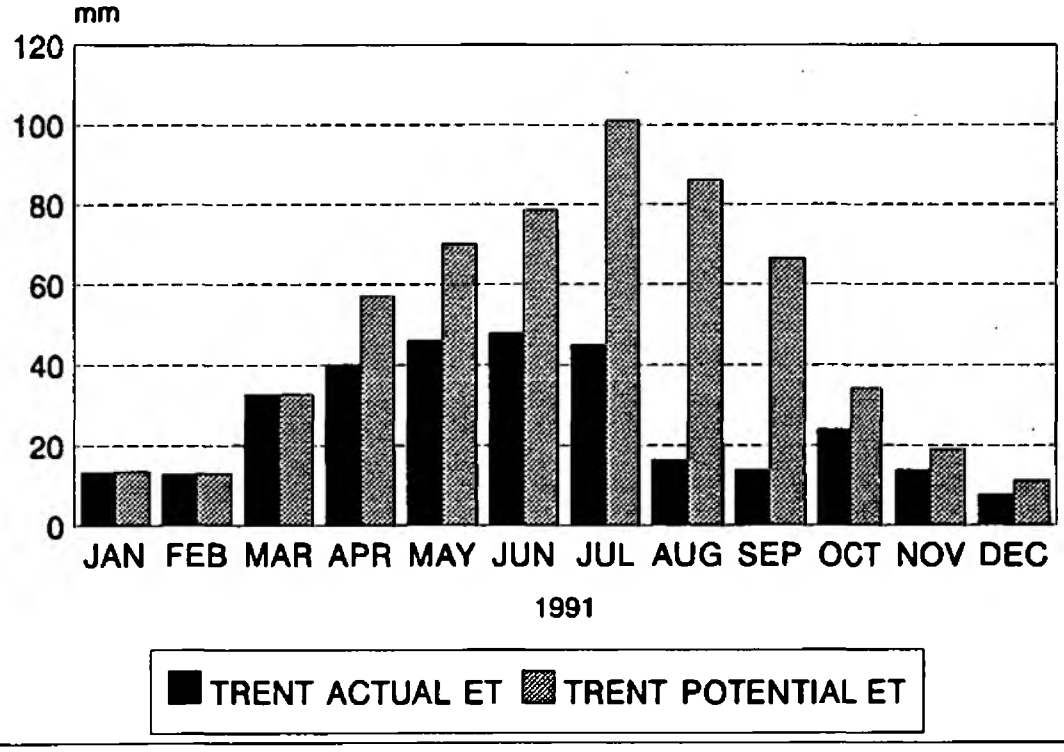
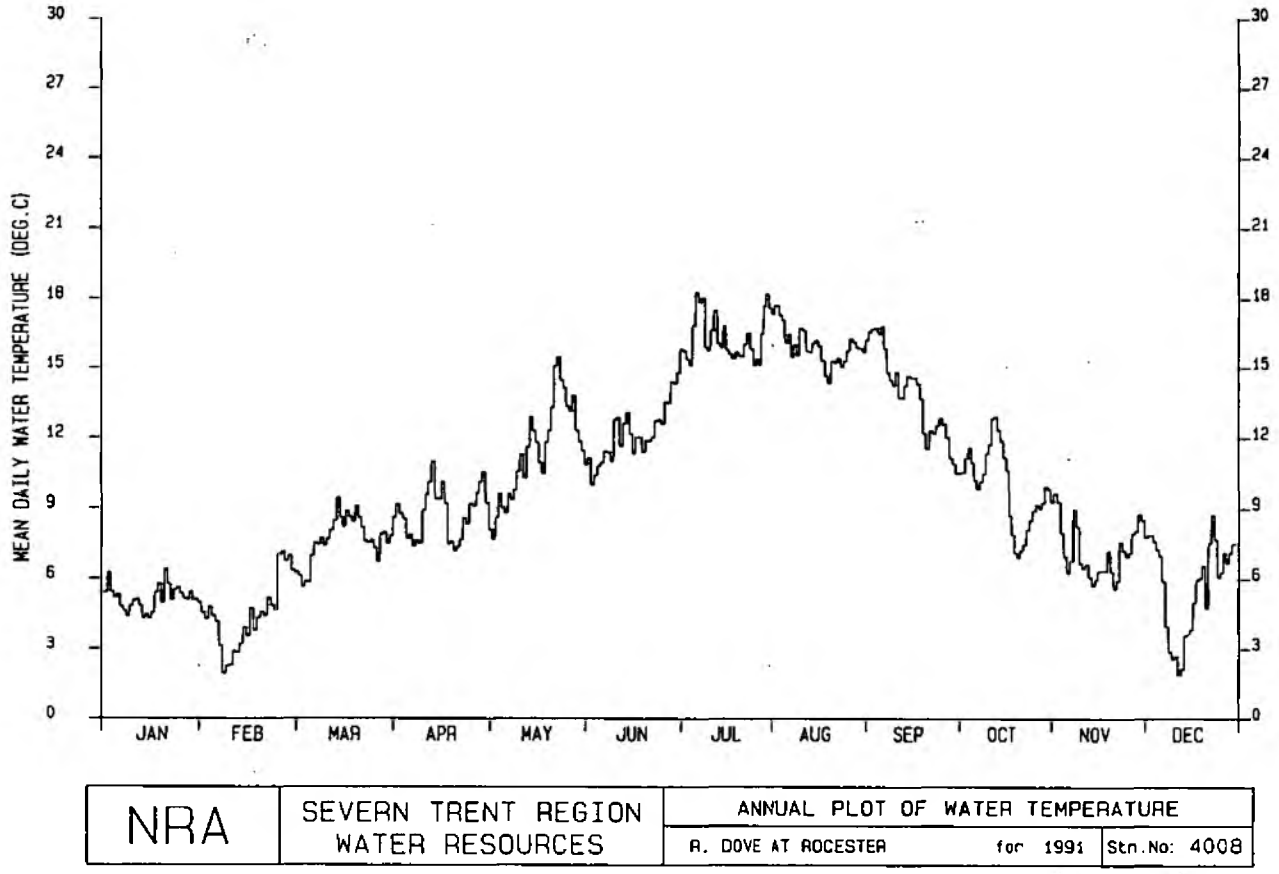


FIGURE 38



NRA	SEVERN TRENT REGION WATER RESOURCES	ANNUAL PLOT OF WATER TEMPERATURE	
		R. DOVE AT ROCESTER for 1991	Stn.No: 4008

FIGURE 39

NRA	SEVERN TRENT REGION WATER RESOURCES	ANNUAL PLOT OF WATER TEMPERATURE	
		R. SEVERN AT BEWDLEY for 1991	Stn.No: 2001

HYDROMETRIC SITE CATALOGUES

The hydrometric site catalogues are produced to show the current extent of the various networks in the region. These networks are not static, and tend to change as the requirement for hydrometric data changes. However, data may be held for sites that are now closed and do not appear in the following tables. Further information on these sites can be obtained on request from the Data Group.

The river level and flow station catalogue gives details on all current sites and is arranged in downcatchment order, starting at the head of the catchment. The map of river level and flow stations only shows the more important stations for reasons of clarity.

The operational rainfall intensity catalogue lists the sites at which interrogable tipping bucket rainfall gauges are located. The corresponding map shows their location within the region.

The daily rainfall station catalogue includes all sites within the region for which data are currently collected by the Meteorological Office. Whilst not all of these are operated by the NRA, access is available to the data from all sites listed. The stations are presented in Meteorological Office number order which corresponds to downcatchment order from the head of the River Trent to the Humber estuary followed by the River Severn from source to estuary.

The climate station network has been greatly reduced in recent years, such that only one site now collects data for all the variables required for the calculation of potential evapotranspiration. However, a number of interrogable rainfall event sites have been equipped with air temperature and wind run sensors to provide real time data for flood forecasting. These are also included in the climate station catalogue.

The groundwater observation borehole catalogue is split into two sections, covering the catchment areas of the River Trent and the River Severn respectively.

FIGURE 40.

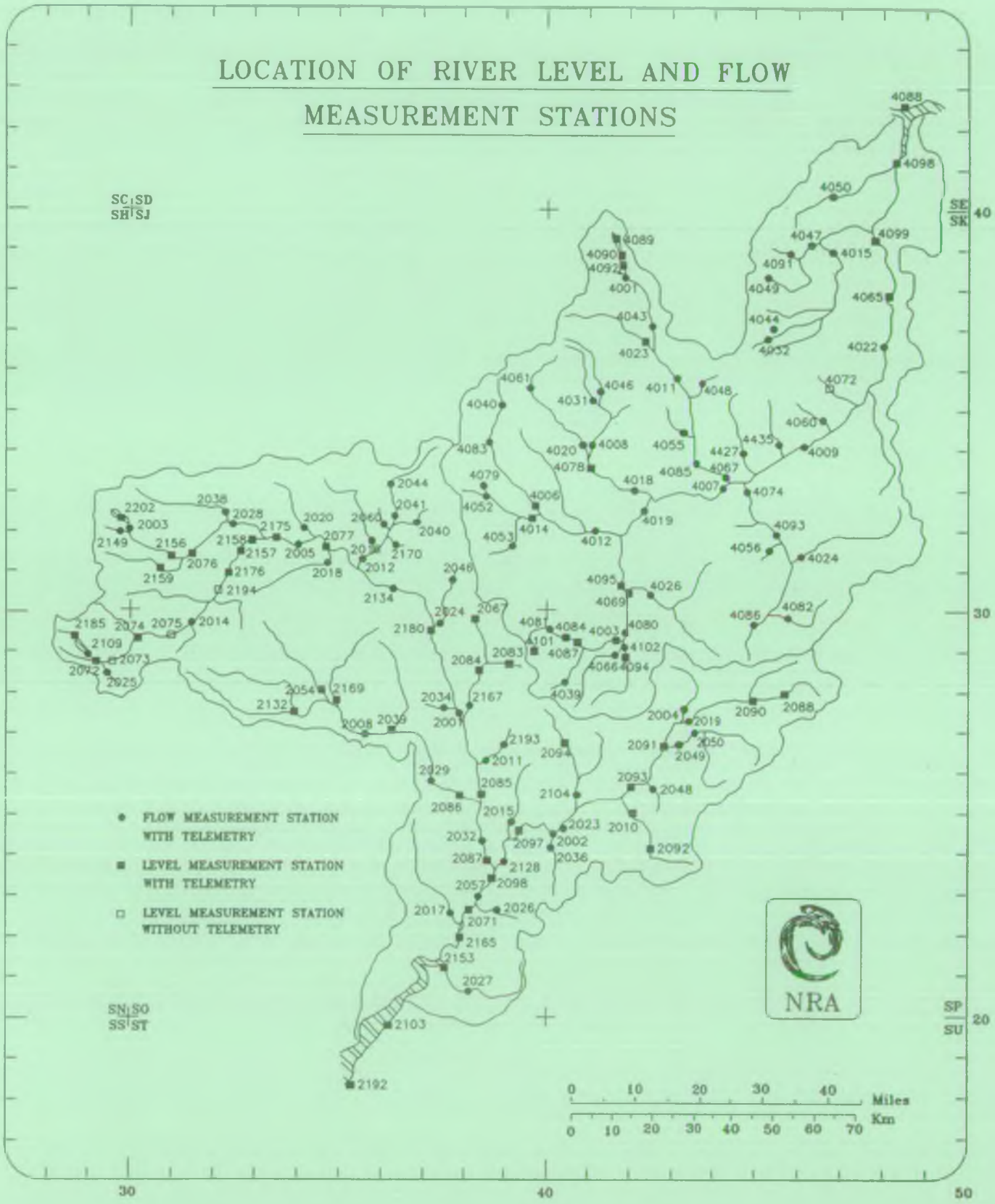

LOCATION OF RIVER LEVEL AND FLOW
MEASUREMENT STATIONS
SC SD
SH SJ
SE
SK
40
30
SP
SU
20
SN SO
SS ST
30
40
50
FLOW MEASUREMENT STATION WITH TELEMETRY
LEVEL MEASUREMENT STATION WITH TELEMETRY
LEVEL MEASUREMENT STATION WITHOUT TELEMETRY
NRA
0 10 20 30 40 Miles
0 10 20 30 40 50 60 70 Km

TABLE 22
LEVEL AND FLOW MEASUREMENT STATIONS
SEVERN BASIN - DOWN CATCHMENT ORDER

RIVER NAME	STATION NAME	NRA REF.	NGR	AREA KM²	SITE TYPE & EQUIPMENT	PROCESS POLICY	START LEVEL REC	AREA
. SEVERN	PLYNLIMON	2022	SN850872	8.7	TF CH	1	01/1952	US
DULAS	RHOS-Y-PENTREF	2025	SN950824	52.7	TF TG CH	3	10/1969	US
.. LLYN CLYWEDOG	CLYWEDOG RES.LEVEL	2185	SN912870		RE TG	2	04/1979	US
.. CLYWEDOG	BRYNTAIL	2109	SN913868	49.0	FV TG CH	3	06/1977	US
SEVERN	LLANIDLOES	2072	SN955848	163.0	OC TG CH	1	06/1967	US
SEVERN	DOLWEN	2073	SN996851	187.0	OC CH	1	06/1975	US
SEVERN	CAERSWS	2074	SO033917	375.0	OC TG CH	1	11/1962	US
SEVERN	NEWTOWN	2075	SO117922	457.0	OC CH	1	12/1970	US
SEVERN	ABERMULE	2014	SO164958	580.0	OC TG CH	3	06/1960	US
SEVERN	MUNLYN	2252	SJ211011		OC CH TG	1	10/1991	US
SEVERN	CILCEWYDD	2194	SJ229041	855.0	OC CH	1	04/1985	US
SEVERN	BUTTINGTON	2176	SJ246089	904.0	OC TG CH	1	10/1983	US
SEVERN	POOL QUAY	2157	SJ257113	943.0	OC TG CH	1	02/1980	US
SEVERN	CRIGGION	2178	SJ280141	980.0	OC CH	1	10/1984	US
SEVERN	LLANDRINIO	2158	SJ298169	1033.0	OC TG CH	1	02/1980	US
.. VYRNWY RES.	LAKE VYRNWY RES.L.	2202	SJ022198		RE TG CH	2	03/1981	US
.. MARCHNANT	MARCHNANT TUNNEL	2184	SJ042198		OC CH	1	10/1982	US
.. VYRNWY	VYRNWY WEIR	2003	SJ019191	94.3	RW TG CH	3	01/1908	US
.. COWNWY	COWNWY WEIR	2149	SH999179	13.2	FV TG CH	3	09/1979	US
VYRNWY	PONTROBERT	2156	SJ108128	173.0	OC TG CH	1	10/1979	US
BANWY	LLANERFYL	2159	SJ031098	125.0	OC TG CH	1	11/1978	US
VYRNWY	MEIFOD	2076	SJ156129	405.0	OC TG CH WT	2	11/1962	US
TANAT	LLANYBLODWEL	2038	SJ252225	229.0	FV TG CH	3	06/1973	US
VYRNWY	LLANYMYNECH	2028	SJ252195	778.0	OC TG CH	3	04/1970	US
SEVERN	CREW GREEN	2175	SJ330158	1915.0	OC TG CH	1	11/1983	US
SEVERN	MONTFORD	2005	SJ412144	2025.0	OC TG CH WT	3	06/1952	US
PERRY	PERRY FM.	2045	SJ348302	49.1	FV CH	1	11/1973	US
PERRY	WYKEY	2078	SJ396245	140.0	OC CH	1	07/1974	US
PERRY	YEATON	2020	SJ434192	180.8	SC TG CH	3	10/1963	US
SEVERN	WELSHBRIDGE	2077	SJ489128	2287.0	OC TG CH	1	12/1950	US
REA BK.	HOOKAGATE	2018	SJ466092	178.0	CT TG CH	3	10/1962	US
TERN	TERNHILL	2044	SJ629316	92.6	RW TG CH	3	10/1972	US
BAILEY BK.	TERNHILL	2052	SJ629316	34.4	RW TG CH	3	04/1970	US
HODNET BK.	HODNET	2061	SJ628288	5.1	FV CH	1	05/1972	US
STOKE BK.	STOKE	2062	SJ637280	13.7	FV CH	1	04/1972	US
TERN	PEPLOW	2079	SJ640248	186.0	OC CH	1	12/1972	US
TERN	EATON ON TERN	2041	SJ649230	191.7	SC TG CH	3	06/1972	US
ALFORD BK.	CHILDS ERCALL	2151	SJ665233	4.7	VN TG CH	3	09/1979	US
COLEY BK.	COLEY MILL	2199	SJ779192		RW TG CH	3	12/1991	US
MEESE	TIBBERTON	2040	SJ680205	168.0	SC TG CH	3	11/1973	US
POTFORD BK.	SANDYFORD BRIDGE	2060	SJ634220	25.0	FV TG CH	3	04/1972	US
CROW BK.	HORTON	2110	SJ678141	16.7	FV CH	1	06/1978	US
STRINE	CRUDGINGTON	2170	SJ640175	134.0	EM TG CH	3	07/1981	US

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TL - TIDAL LEVEL SITE
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. Site maintained & operated by Institute of Hydrology

TABLE 22
LEVEL AND FLOW MEASUREMENT STATIONS
SEVERN BASIN - DOWN CATCHMENT ORDER

RIVER NAME	STATION NAME	NRA REF.	NGR	AREA KM²	SITE TYPE & EQUIPMENT	PROCESS POLICY	START LEVEL REC	AREA
RODEN	RODINGTON	2016	SJ589141	259.0	CT TG CH	3	04/1961	US
TERN	WALCOT	2012	SJ592123	852.0	FV TG CH	3	05/1959	US
SEVERN	BUILDWAS	2134	SJ644044	3717.0	US TG CH	3	09/1977	US
WORFE	COSFORD	2046	SJ781046	54.9	RW TG CH	3	02/1975	US
WORFE	BURCOTE	2024	SO747953	258.0	SC TG CH	3	04/1969	US
SEVERN	BRIDGNORTH	2180	SO719931	4059.0	OC TG CH	1	11/1985	US
DOWLES BK.	OAK COTTAGE	2034	SO768764	40.8	FV TG CH	3	09/1971	US
SEVERN	BEWDLEY G.S	2001	SO782762	4325.0	US TG CH WT	3	02/1968	US
SMESTOW	TETTENHALL	2183	SJ897007	9.0	OC CH	1	07/1985	US
SMESTOW BK.	SWINDON	2067	SO861906	81.3	OC TG CH	1	09/1973	US
STOUR	STOURBRIDGE	2083	SO905845	61.0	OC TG CH	1	07/1956	US
STOUR	STOURTON	2084	SO861848	232.0	OC TG CH	1	09/1956	US
STOUR	KIDDERMINSTER C/L	2167	SO829767	324.0	US TG CH	3	11/1980	US
HADLEY BK.	WARDS BRIDGE	2193	SO870631	53.0	FV TG CH	3	12/1987	US
SALWARPE	HARFORD HILL	2011	SO868618	184.0	OC CH	1	01/1958	US
SEVERN	DIGLIS(WORCESTER)	2085	SO847535	5073.0	OC TG CH	1	10/1953	US
TEME	KNIGHTON	2107	SO290724	131.0	OC CH	1	10/1977	US
TEME	LEINTWARDINE	2132	SO404739	440.0	OC TG CH	1	08/1977	US
ONNY	ONIBURY	2054	SO455789	235.0	OC TG CH	1	02/1971	US
.. SEIFTON BK.	SEIFTON	2179	SO483833	10.5	VN CH	1	09/1984	US
CORVE	LUDLOW	2169	SO509760	164.0	OC TG CH	1	09/1981	US
.. LEDWYCHE BK.	STOKE ST.MILBORO	2171	SO566822	1.5	VN CH	1	05/1982	US
TEME	TENBURY	2008	SO597686	1135.0	OC TG CH	3	09/1956	US
REA	NEWNHAM BRIDGE	2039	SO644693	170.0	OC TG CH	1	01/1978	US
TEME	KNIGHTSFORD BRIDGE	2029	SO734557	1480.0	OC TG CH	3	04/1970	US
TEME	BRANSFORD	2086	SO804532	1580.0	OC TG CH WT	2	07/1951	US
SEVERN	SAXONS LODE	2032	SO863390	6850.0	US TG CH WT	3	06/1970	LS
SEVERN	MYTHE BRIDGE	2087	SO888337	6975.0	OC TG CH	1	06/1970	LS
AVON	LILBOURNE	2088	SP563778	110.0	OC TG CH	1	04/1972	LS
.. AVON	BROWNSOVER	2182	SP515765	166.0	CB CH	1	04/1985	LS
AVON	RUGBY	2090	SP503767	243.0	OC TG CH	1	04/1972	LS
AVON	STARETON	2019	SP333716	347.0	SC TG CH	3	10/1962	LS
SOWE	STONELEIGH	2004	SP331730	262.0	CC TG CH	3	03/1951	LS
.. LEAM	EATHORPE	2050	SP388688	300.0	TF TG CH	3	10/1972	LS
LEAM	LEAMINGTON PDW	2049	SP307654	362.0	CT TG CH	3	12/1961	LS
AVON	WARWICK	2091	SP300654	1005.0	OC TG CH	1	05/1972	LS
DENE	WELLESBOURNE	2048	SP273556	102.0	FV TG CH	3	07/1976	LS
AVON	STRATFORD	2093	SP205548	1273.0	OC TG CH	1	01/1971	LS
STOUR	SHIPSTON	2092	SP261404	185.0	OC TG CH	1	04/1972	LS
STOUR	ALSCOT PARK	2010	SP208506	316.0	CB TG CH	1	10/1959	LS
ARROW	STUDLEY	2094	SP076640	92.9	OC TG CH	1	04/1972	LS
ARROW	BROOM	2104	SP086536	319.0	SC TG CH	3	10/1956	LS
BADSEY BK.	OFFENHAM	2023	SP063449	95.8	TF TG CH	3	05/1968	LS

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SEVERN BASIN - DOWN CATCHMENT ORDER

RIVER NAME	STATION NAME	NRA REF.	NGR	AREA KM²	SITE TYPE & EQUIPMENT	PROCESS POLICY	START LEVEL REC	AREA
AVON	EVESHAM	2002	SP040438	2210.0	OC TG CH WT	3	10/1937	LS
ISBOURNE	HINTON ON GREEN	2036	SP023408	90.7	SC TG CH	3	11/1971	LS
AVON	HAMPTON PARKS	2155	SP032446	2305.0	OC CH	1	05/1980	LS
AVON	PERSHORE	2097	SO951456	2427.0	OC TG CH	1	10/1974	LS
BOW BK.	BESFORD BRIDGE	2015	SO927463	156.0	RW TG CH	3	04/1961	LS
AVON	BREDON	2128	SO921374	2674.0	US TG CH	3	01/1979	LS
AVON	TEWKESBURY LOWER	2099	SO894333	2787.0	OC CH	1	01/1938	LS
AVON	TEWKESBURY	2098	SO894333	2787.0	OC TG CH	1	01/1938	LS
SEVERN	HAW BRIDGE	2057	SO844279	9895.0	OC TG CH	3	05/1971	LS
CHELT	SLATE MILL	2026	SO892264	34.5	TF TG CH	1	04/1969	LS
LEIGH BK.	LEIGH COURT	2188	SO865253		CH TG	1	10/1986	LS
SEVERN	ASHLEWORTH	2071	SO819250	9983.0	OC TG CH	1	08/1975	LS
LEADON	WEDDERBURN BRIDGE	2017	SO777234	293.0	CT TG CH	3	08/1961	LS
SEVERN	LLANTHONY WEIR	2101	SO821182		OC CH	1	09/1973	LS
SEVERN	GLOUCESTER DOCKS	2165	SO826185	10453.0	TL TG CH	1	11/1979	LS
SEVERN	MINSTERWORTH	2102	SO768168	10505.0	TL CH TG	1	03/1962	LS
SEVERN	EPNEY	2153	SO762111	10574.0	TL TG CH	1	03/1980	LS
FROME	EBLEY MILL	2027	SO831047	198.0	RS TG CH	3	04/1969	LS
INDEPENDENCE LV	WHITECROFT	2251	SO619063	33.0	CH TF	1	05/1985	LS
SEVERN	SHARPNESS	2195	SO667022		TL TG	1		LS
SEVERN	BERKELEY	2103	ST655995	11040.0	TL TG CH	1	08/1976	LS
SEVERN	AVONMOUTH	2192	ST510790		TL TG	1	04/1988	LS

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TABLE 22
LEVEL AND FLOW MEASUREMENT STATIONS
TRENT BASIN - DOWN CATCHMENT ORDER

RIVER NAME	STATION NAME	NRA REF.	NGR	AREA KM²	SITE TYPE & EQUIPMENT	PROCESS POLICY	START LEVEL REC	AREA
FOWLEA BK.	BURSLEM WRW	4864	SJ863487		OC CH	1	06/1988	UT
TRENT	STOKE	4040	SJ892467	53.2	SC TG CH	3	03/1968	UT
TRENT	DARLASTON	4083	SJ885355	195.2	US TG CH	3	12/1982	UT
TRENT	GREAT HAYWOOD	4006	SJ994231	325.0	OC TG CH	1	12/1965	UT
SOW	WALKMILL	4840	SJ793298		VN TG CH	3	07/1979	UT
MEECE BK.	SHALLOWFORD	4079	SJ874291	86.3	FT TG CH	3	11/1981	UT
SOW	GREAT BRIDGFORD	4052	SJ883270	163.0	FT TG CH	3	01/1971	UT
TILLINGTON P'L	DOXEY MARSHES	4875	SJ907246		OC CH	1	05/1984	UT
TILLINGTON DRA	DOXEY MARSHES	4869	SJ914240		OC CH	1	02/1984	UT
PENK	PENKRIDGE	4053	SJ922144	272.0	FT TG CH	3	07/1971	UT
SPRINGSLADE BK.	SPRINGSLADE POOL	4872	SJ962169		VN CH	1	07/1982	UT
ACTON T'SEL BK.	ACTON TRUSSEL	4851	SJ941177	1.8	VN CH	3	09/1977	UT
ACTON HILL BK.	ACTON HILL	4850	SJ941188	5.0	RW CH	3	02/1978	UT
OLDACRE BK.	BROCTON	4852	SJ961202		VN CH TG	3	01/1978	UT
SOW	MILFORD	4014	SJ975215	591.0	OC TG CH	2	01/1970	UT
BLITHE	CRESSWELL	4863	SJ978390		OC CH	1	11/1980	UT
BLITHE	NEWTON HURST	4867	SK049259		OC CH	1	11/1980	UT
TRENT	YOXALL	4012	SK133177	1229.0	OC TG CH	3	08/1959	UT
TAME	SHEEPWASH	4101	SO974918		TF TG CH	1	04/1986	UT
TAME	OCKER HILL	4888	SO982941		OC CH	1	11/1986	UT
TAME	JAMES BRIDGE	4104	SO988987	57.0	EM TG CH	3	09/1988	UT
TAME	PARK HILL	4105	SP001956	74.0	EM TG	3	09/1988	UT
TAME	BESCOT	4081	SP012958	169.0	US TG CH	3	08/1981	UT
TAME	SANDWELL	4084	SP029927	182.0	TF TG CH	1	06/1983	UT
TAME	HAMSTEAD RD	4877	SP049923	193.3	OC CH	1	12/1982	UT
TAME	PERRY PARK	4087	SP061919	198.0	TF TG CH	1	11/1983	UT
TAME	WALSALL RD	4876	SP067913	199.0	OC CH	1	12/1982	UT
TAME	BROOKVALE RD	4878	SP082909	221.0	OC CH	1	12/1982	UT
REA	CALTHORPE PARK	4039	SP071847	74.3	SC TG CH	3	04/1967	UT
TAME	WATER ORTON	4003	SP169915	408.0	OC CH	1	09/1955	UT
COLE	COLESHILL	4066	SP183874	130.0	FT TG CH	3	10/1973	UT
BLYTHE	CASTLE FM.	4094	SP213888	184.0	OC TG CH	1	12/1985	UT
.. BLYTHE	WHITACRE PIPE-FLOW	4508	SP212911		EM TG	3	06/1983	UT
.. BLYTHE	WHITACRE	4102	SP212911	197.0	EM TG	3	06/1983	UT
BOURNE BK.	SHUSTOKE	4108	SP235916		VN CH TG	3	09/1990	UT
TAME	LEA MARSTON	4080	SP208937	799.0	SC TG CH	3	11/1981	UT
ANKER	POLESWORTH	4026	SK263034	368.0	SC TG CH	3	09/1966	UT
TAME	TAMWORTH	4069	SK206037	1407.0	OC TG CH	1	06/1955	UT
TAME	HOPWAS BRIDGE	4095	SK182052	1425.0	OC TG CH	1	03/1986	UT
TAME	ELFORD	4005	SK173105	1475.0	OC CH	1	12/1955	UT
MEASE	STONES BRIDGE	4868	SK261115	122.5	OC CH	1		UT

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TRENT BASIN - DOWN CATCHMENT ORDER

RIVER NAME	STATION NAME	NRA REF.	NGR	AREA KM²	SITE TYPE & EQUIPMENT	PROCESS POLICY	START LEVEL REC	AREA
TRENT	DRAKELOW	4019	SK239204	3072.0	OC TG CH	3	06/1966	UT
DOVE	IZAAK WALTON	4046	SK146509	83.0	FV TG CH	3	06/1969	UT
MANIFOLD	ILAM	4031	SK140507	148.5	SC TG CH	3	04/1968	UT
.. HENMORE BK.	CARSINGTON OUTFLOW	4103	SK242503		RW TG CH	3	04/1988	UT
DOVE	ROCESTER	4008	SK112397	399.0	RS TG CH WT	3	04/1953	UT
DEEP HAYES BK.	DEEP HAYES D/S	4827	SJ961534		RW CH	1	04/1980	UT
CHURNET	BASFORD BRIDGE	4061	SJ982522	139.0	FT TG CH	3	01/1975	UT
CHURNET	ROCESTER	4020	SK103389	236.0	OC TG CH	1	10/1954	UT
DOVE	DOVERIDGE	4078	SK111339	799.0	OC TG CH	1	02/1972	UT
DOVE	MARSTON	4018	SK235288	883.2	FT TG CH	3	07/1965	UT
ROLLESTON BK.	ROLLESTON	4076	SK243283	23.0	FV TG CH	3	04/1980	UT
TRENT	SHARDLOW	4007	SK448300	4400.0	TG CH US	3	09/1959	LT
.. DERWENT	SLIPPERY STONES	4075	SK169951	17.0	FT CH	1	03/1979	LT
.. WESTEND	ABOVE HOWDEN RES.	4885	SK154928		OC CH	1	07/1989	LT
.. HOWDEN RES.	HOWDEN RES.LVL	4089	SK168925		RE TG	2	07/1986	LT
.. DERWENT RES.	DERWENT RES.LVL.	4090	SK172897		RE TG	2	07/1986	LT
.. ASHOP	ASHOP DIVERSION	4073	SK171896	42.0	RS CH	1	10/1976	LT
.. LADYBOWER RES.	LADYBOWER RES.LVL.	4092	SK202854		RE TG	2	07/1986	LT
.. DERWENT	YORKSHIRE BRIDGE	4001	SK198851	126.0	TV TG CH	3	05/1905	LT
DERWENT	MYTHAM BRIDGE	4037	SK205825	203.0	OC CH	1	01/1968	LT
DERWENT	CHATSWORTH	4043	SK261683	335.0	OC TG CH	3	11/1968	LT
WYE	ASHFORD	4023	SK182696	154.0	OC TG CH	2	07/1965	LT
DERWENT	MATLOCK	4011	SK296586	688.9	OC TG CH	3	10/1958	LT
.. OGSTON RES.	OGSTON RES.LVL.	4106	SK379599		RE TG	2	11/1987	LT
.. AMBER	OGSTON RES. O/F	4821	SK382598	27.3	CR CH	1		LT
AMBER	WINGFIELD PARK	4048	SK376520	139.0	FT TG CH	3	08/1970	LT
DERWENT	AMBERGATE	4815	SK347517		OC CH	1	11/1978	LT
DERWENT	BELPER WEIR	4883	SK346482	920.0	OC CH TG	1	05/1990	LT
ECCLESBOURNE	DUFFIELD	4055	SK320447	50.0	FT CH TG	3	08/1971	LT
DERWENT	PECKWASH MILL	4823	SK354423	1009.0	OC CH	1	03/1979	LT
DERWENT	ST. MARYS BDGE	4085	SK355368	1054.0	US TG CH	3	07/1983	LT
.. SPONDON OUTFALL	SPONDON	4077	SK395345		EM TG CH	3	03/1980	LT
DERWENT	SPONDON SLUICES	4107	SK398343		RS TG	1	11/1989	LT
DERWENT	CHURCH WILNE	4067	SK438316	1177.5	FT TG CH	3	04/1973	LT
DERWENT	DRAYCOTT	4021	SK443327	1175.0	OC CH	1	07/1965	LT
SOAR	LITTLETHORPE	4082	SP542973	183.9	EM TG CH	3	11/1981	LT
SENCE	SOUTH WIGSTON	4086	SP588977	113.0	EM TG CH	3	09/1983	LT
EYE	BRENTINGBY	4845	SK784185	158.3	OC CH	1	01/1979	LT
SCALFORD BK.	MELTON MOWBRAY U/S	4729	SK758205	22.3	RE TG	2	10/1991	LT
WREAKE	FRISBY-ON-WREAKE	4873	SK697182	271.3	RS TG	1	03/1988	LT
WREAKE	SYSTON	4024	SK615124	414.0	EM TG CH	3	07/1967	LT
ROTHLEY BK.	ROTHLEY	4056	SK580121	94.0	FT TG CH	3	05/1973	LT

KEY TO ABBREVIATIONS

AREA
US - UPPER SEVERN
LS - LOWER SEVERN
UT - UPPER TRENT
LT - LOWER TRENT

PROCESSING POLICY
1 - LEVEL CHARTS ONLY
2 - MONTHLY LEVEL SUMMARY
3 - PROCESSED TO FLOWS

STATION TYPE AND EQUIPMENT
BC - BROAD CRESTED WEIR
CB - COMPOUND BROAD CRESTED WEIR
CC - COMPOUND CRUMP WEIR
CH - CHART RECORDER
CR - COMPOUND RECTANGULAR WEIR
CT - COMPOUND TRAPEZOIDAL WEIR
EM - ELECTROMAGNETIC GAUGE
FT - FLAT VEE TRAPEZOIDAL CHANNEL
FV - FLAT VEE WEIR
OC - OPEN CHANNEL SITE
RE - RESERVOIR LEVEL SITE
RS - NON STANDARD RATED STRUCTURE
RW - RECTANGULAR WEIR
SC - SIMPLE CRUMP WEIR
TF - TRAPEZOIDAL FLUME
TG - TELEGEN 1150 TELEMETRY
TL - TIDAL LEVEL SITE
US - ULTRASONIC GAUGE
VN - VEE NOTCH WEIR
WT - WATER TEMPERATURE SENSOR

.. Site owned by STW Plc, maintained & operated by NRA

TABLE 22
LEVEL AND FLOW MEASUREMENT STATIONS
TRENT BASIN - DOWN CATCHMENT ORDER

RIVER NAME	STATION NAME	NRA REF.	NGR	AREA KM²	SITE TYPE & EQUIPMENT	PROCESS POLICY	START LEVEL REC	AREA
SOAR	PILLINGS LK	4093	SK565182	1105.0	US TG	3	02/1985	LT
SOAR	ZOUCH SLUICE GATE	4109	SK492268	1305.0	BC TG	1		LT
SOAR	KEGWORTH	4074	SK492263	1292.0	US TG CH	3	12/1978	LT
EREWASH	SANDIACRE	4427	SK482364	181.0	US TG CH WT	3	02/1966	LT
LEEN	TRIUMPH RD.	4435	SK549392	111.0	US TG CH WT	3	10/1968	LT
TRENT	COLWICK SLUICES	4890	SK615394	7484.0	RS TG	1	11/1989	LT
TRENT	COLWICK	4009	SK620399	7486.0	OC TG CH	3	09/1958	LT
DOVER BECK	LOWDHAM	4060	SK653479	69.0	FV TG CH	3	03/1971	LT
GREET	SOUTHWELL	4072	SK714540	57.0	FV CH	1	12/1974	LT
DEVON	COTHAM	4017	SK787486	284.0	OC CH	1	09/1966	LT
TRENT	NORTH MUSKHAM	4022	SK801601	8231.0	OC TG CH	3	10/1967	LT
TRENT	TORKSEY	4065	SK837792	8589.0	TL TG CH WT	1	01/1945	LT
TRENT	GAINSBOROUGH	4099	SK814897	8716.0	TL TG CH	1	01/1945	LT
MAUN	MANSFIELD	4115	SK559636	31.5	FV CH TG	3	04/1992	LT
MEDEN	CHURCH WARSOP	4032	SK558680	63.0	RS CH TG	3	08/1965	LT
POULTER	CUCKNEY	4044	SK571713	35.0	SC CH TG	3	07/1969	LT
IDLE	ORDSALL	4886	SK706797		OC CH	1	09/1987	LT
IDLE	MATTERSEY	4015	SK690895	529.0	EM TG CH	3	04/1961	LT
RYTON	WORKSOP	4049	SK575794	77.0	FV CH TG	3	06/1970	LT
RYTON	BLYTH	4091	SK631871	231.0	EM TG CH	3	03/1984	LT
OLDCOATES DYKE	BLYTH	4047	SK615876	85.0	FV CH TG	3	06/1970	LT
TRENT	OWSTON FERRY	4835	SK814994	9694.0	TL CH	1	01/1945	LT
TORNE	AUCKLEY	4050	SE646012	141.0	FV TG CH	3	07/1970	LT
TRENT	KEADBY	4098	SE835114	10098.0	TL TG CH	1	01/1945	LT
HUMBER	BLACKTOFT	4088	SE843243	10435.0	TL TG	1	12/1985	LT

KEY TO ABBREVIATIONS

AREA

US - UPPER SEVERN
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PROCESSING POLICY

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STATION TYPE AND EQUIPMENT

BC - BROAD CRESTED WEIR
CB - COMPOUND BROAD CRESTED WEIR
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CR - COMPOUND RECTANGULAR WEIR
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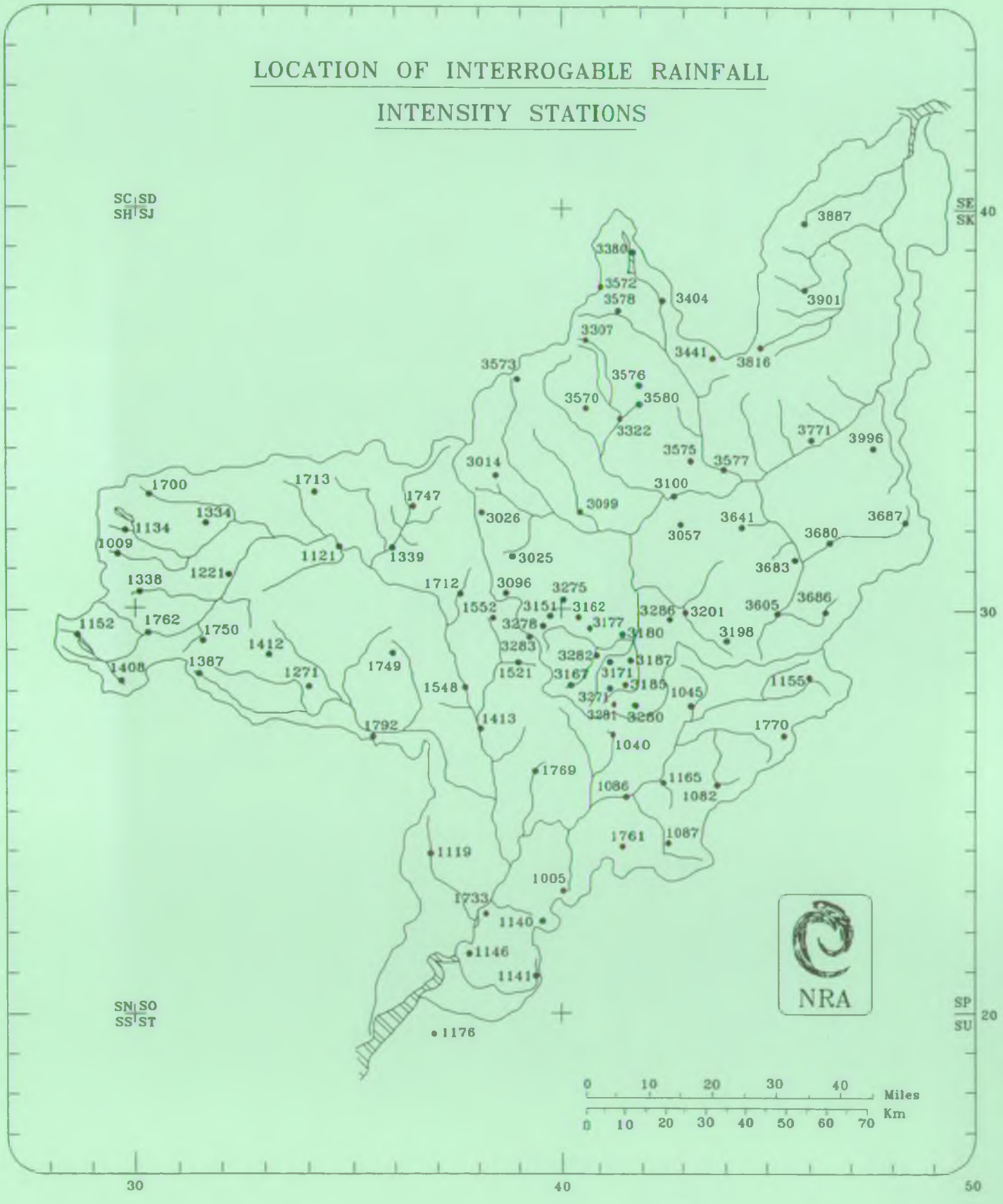
EM - ELECTROMAGNETIC GAUGE
FT - FLAT VEE TRAPEZOIDAL CHANNEL
FV - FLAT VEE WEIR
OC - OPEN CHANNEL SITE
RE - RESERVOIR LEVEL SITE
RS - NON STANDARD RATED STRUCTURE
RW - RECTANGULAR WEIR
SC - SIMPLE CRUMP WEIR
TF - TRAPEZOIDAL FLUME
TG - TELEGEN 1150 TELEMETRY
TL - TIDAL LEVEL SITE
US - ULTRASONIC GAUGE
VN - VEE NOTCH WEIR
WT - WATER TEMPERATURE SENSOR

FIGURE 41.


LOCATION OF INTERROGABLE RAINFALL
INTENSITY STATIONS
SC SD
SH SJ
SE
SK
40
30
SP
SU
20
SN SO
SS ST
30
40
50
3887
3380
3572
3578
3404
3901
3307
3441
3816
3573
3576
3570
3580
3322
3771
3996
3575
3577
3014
3100
1700
1713
1747
3099
1334
3026
3641
3687
1134
3057
3680
1009
1121
1339
3025
3683
1221
1338
1712
3096
3275
1552
3151
3162
3286
3201
3605
3686
1152
1762
3278
3177
3180
3198
1750
1412
3283
1408
1387
1749
3282
3187
1271
1521
3167
3171
3185
1155
1548
3271
1045
1792
1413
3281
3260
1770
1040
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1165
1086
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1087
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1005
1733
1140
1146
1141
1176
NRA
0 10 20 30 40 Miles
0 10 20 30 40 50 60 70 Km

TABLE 23
OPERATIONAL RAINFALL INTENSITY STATIONS
SEVERN BASIN : NRA REFERENCE NUMBER ORDER

STATION NAME	NRA REF.	MET. OFFICE No	GRID REFERENCE	ALTITUDE (m)	SAAR (mm)	START OF RECORD	AREA
LANGLEY	1005	456216	SP005282	165	720	12/1970	LS
PEN-Y-COED	1009	425646	SH978144	305	1820	04/1987	US
HENLEY PS	1040	454894	SP154679	78	708	05/1964	LS
FINHAM	1045	449958	SP334740	61	644	06/1960	LS
KNIGHTCOTE	1082	450777	SP398545	95	670	12/1970	LS
STRATFORD,MILCOTE	1086	453923	SP182529	47	600	05/1970	LS
SHIPSTON	1087	453420	SP268411	67	625	08/1972	LS
LEDBURY	1119	459794	SO701372	38	700	04/1987	LS
MONKMOOR	1121	430296	SJ517136	55	627	02/1985	US
VYRNWY	1134	425001	SJ017188	303	1529	01/1946	US
DOWDESWELL	1140	458844	SO983198	109	740	07/1970	LS
MISERDEN	1141	461467	SO937087	232	941	07/1987	LS
NETHERIDGE	1146	460970	SO810157	12	665	11/1975	LS
DOLYDD	1152	421140	SN873905	297	1780	05/1979	US
STANFORD	1155	447787	SP596804	112	686	05/1964	LS
WELLESBOURNE	1165	452036	SP271565	47	599	10/1991	LS
KINGSWOOD	1176	419869	ST743929	42	730	06/1972	LS
ALVECHURCH	1201	454433	SP032717	104	750	03/1981	LS
WELSHPOOL	1221	424216	SJ233073	70	850	05/1972	US
CRAVEN ARMS	1271	443093	SO437811	111	780	01/1980	US
LLANFYLLIN WRW	1334	426593	SJ154188	113	1080	01/1977	US
CEFN COCH	1338	423198	SJ042026	312	1150	08/1982	US
RUSHMOOR WRW	1339	432811	SJ617135	50	660	03/1979	US
BETTWYS-Y-CRWYN	1387	441009	SO203814	396	1050	06/1981	US
NANTGWYN	1408	420834	SN979768	300	1200	01/1989	US
RORRINGTON	1409	423813	SJ304005	213	760	12/1986	US
BISHOP'S CASTLE	1412	441441	SO338873	251	850	12/1990	US
HARTLEBURY	1413	438925	SO846696	73	650	03 1991	US
LYE P.S	1521	437694	SO919849	75	705	04/1987	US
TRIMPLEY	1548	437138	SO772789	41	730	06/1981	US
BRATCH	1552	438110	SO868937	82	700	04/1986	US
LLANGYNOG	1700	426853	SJ053259	160	1450	04/1981	US
COSFORD W.W	1712	435507	SJ782047	82	670	09/1968	US
BAGLEY	1713	429082	SJ413277	82	720	12/1971	US
LONGFORD	1733	459426	SO847209	88	680	05/1972	LS
ERCALL	1747	431324	SJ663249	91	680	04/1987	US
DITTON PRIORS	1749	444887	SO604883	244	860	11/1977	US
SARN	1750	423601	SO206906	167	900	03/1981	US
CHIPPING CAMDEN	1761	453096	SP164393	123	750	04/1964	LS
CAERSWS	1762	422095	SO040925	137	910	07/1963	US
CROWLE	1769	457597	SO934558	35	650	08/1980	LS
BRAUNSTON	1770	450263	SP533658	107	650	07/1981	LS
BRIMFIELD	1792	443991	SO503682	77	785	04/1987	US

KEY TO ABBREVIATIONS

SAAR - Standard Period Average Annual Rainfall 1941-70

AREA - Operational Area
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TABLE 23
OPERATIONAL RAINFALL INTENSITY STATIONS
TRENT BASIN : NRA REFERENCE NUMBER ORDER

STATION NAME	NRA REF.	MET. OFFICE No	GRID REFERENCE	ALTITUDE (m)	SAAR (mm)	START OF RECORD	AREA
STONE	3014	90803	SJ878321	107	736	08/1963	UT
RODBASTON	3025	92233	SJ920116	101	689	10/1985	UT
HOLLIES	3026	91860	SJ816224	110	687	02/1982	UT
OVERSEAL	3057	100449	SK291149	88	635	01/1974	UT
BARNHURST	3096	91267	SJ901017	110	710	10/1978	UT
BLITHFIELD	3099	93536	SK071226	83	716	07/1974	UT
CLAY MILLS	3100	101151	SK265259	43	650	09/1982	UT
WILLENHALL	3151	94320	SO979983	119	683	08/1962	UT
.. RAY HALL WRW	3162	94889	SP025945	109	677	04/1975	UT
FRANKLEY	3167	95325	SP007801	174	770	09/1985	UT
CANNON HILL PARK	3171	95490	SP067834	155	730	01/1984	UT
.. KINGSTANDING	3177	95646	SP084952	157	729	12/1985	UT
MINWORTH	3180	95802	SP164922	79	660	05/1975	UT
TUDOR GRANGE	3185	96006	SP147789	129	735	03/1981	UT
ELMDON MET OFFICE	3187	96893	SP167841	98	680	10/1985	UT
HINCKLEY	3198	98210	SP420927	99	655	09/1962	UT
ATHERSTONE	3201	99321	SP318980	71	674	04/1966	UT
.. HIGHTERS HEATH	3271	96712	SP086792	158	745	01/1982	UT
.. ROWAY LANE	3273	94599	SO986902	134	750	10/1976	UT
WALSALL WOOD	3275	94700	SK038042	140	720	02/1977	UT
.. NORTON GREEN	3280	96110	SP185749	101	710	02/1984	UT
.. SPRINGBROOK	3281	95861	SP107727	148	750	11/1985	UT
.. WARD END	3282		SP106882	99	680	08/1986	UT
.. LOWER GORNAL	3283		SO904906	107	715	07/1986	UT
BIRCHLEY HEATH WRW	3286	97217	SP285943	168	720	02/1991	UT
HOLLINSCLOUGH	3307	101204	SK066665	291	1273	09/1959	UT
ASHBOURNE,ST OSWALDS	3322	102367	SK173465	150	895	03/1991	LT
DERWENT RESERVOIR	3380	106295	SK175899	249	1275	04/1985	LT
BARBROOK	3404	107268	SK281770	323	940	10/1977	LT
OGSTON	3441	109141	SK380598	102	762	09/1963	LT
CAULDON LOW	3570	103493	SK058480	293	910	03/1985	UT
CHAPEL RESERVOIR	3572	558292	SK069795	354	910	02/1985	UT
STANLEY RESERVOIR	3573	103072	SJ929519	177	910	02/1981	UT
KIRK LANGLEY	3575	110330	SK293392	99	760	09/1980	LT
LONGCLIFFE	3576	108768	SK228553	366	950	11/1980	UT
SPONDON	3577	110525	SK395345	40	620	09/1985	LT
TIDESWELL	3578	107931	SK155746	255	1090	10/1980	LT
.. CARSINGTON DAM	3580	102435	SK242503	168	860	09/1986	UT
NARBOROUGH	3605	111398	SP549966	74	655	02/1971	LT
MOUNT ST. BERNARDS	3641	115296	SK459158	186	760	10/1985	LT
BROOKSBY	3680	113774	SK679154	70	620	07/1964	LT
WANLIP	3683	112545	SK598117	52	630	10/1985	LT
FLECKNEY	3686	111729	SP656946	99	640	12/1985	LT
WHISSENDINE	3687	112771	SK829144	104	650	12/1985	LT
COLWICK	3771	117867	SK615393	23	591	06/1966	LT
SUTTON-IN-ASHFIELD	3816	122707	SK510595	139	715	01/1969	LT
TICKHILL	3887	127564	SK602936	11	600	09/1986	LT
WORKSOP	3901	125215	SK608791	62	620	10/1985	LT
LANGAR	3996	119909	SK732338	30	550	07/1989	LT

KEY TO ABBREVIATIONS

SAAR - Standard Period Average Annual Rainfall 1941-70

AREA - Operational Area
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UT - Upper Trent LT - Lower Trent

.. Site owned by STW Plc, operated & maintained by NRA

TABLE 24
DAILY RAINFALL STATIONS: TRENT CATCHMENT
MET OFFICE NUMBER ORDER

STATION NAME	NRA REF	MET. OFFICE	NGR	ALTITUDE (m)	SAAR (mm)	START RECORD	START DATA	AREA	FREQ
CHAPEL RESERVOIR	3572	558292	SK069795	353	910	1986	ND	LT	I
BURSLEM WRW	3008	89361	SJ862487	122	850	1976	1977	UT	D
KEELE UNIVERSITY	3004	89542	SJ820446	179	805	1951	ND	UT	D
STRONGFORD W.R.W.	3068	89714	SJ878393	95	800	1978	1979	UT	D
HIXON WRW	3104	90273	SK002246	79	740	1984	1985	UT	D
SUGNALL HALL	3009	90358	SJ799312	143	735	1968	1968	UT	D
STAFFORD RIVERWAY	3016	91143	SJ930230	75	745	1981	1982	UT	D
BARNHURST W.R.W.	3096	91267	SJ900016	110	710	1978	1979	UT	D
SLADE HEATH P.S	3020	91403	SJ918071	104	693	1919	1961	UT	D
BELVIDE RES	3024	91773	SJ861103	112	733	1885	1886	UT	D
HOLLIES P.S	3026	91860	SJ816224	110	687	1963	1963	UT	D
PENKRIDGE,STAFFS A/C	3025	92233	SJ920116	101	689	1956	ND	UT	D
SLITTING MILL	3031	92923	SK033173	91	739	1931	1961	UT	D
MEIR P.S.	3037	93141	SJ937421	188	846	1882	1882	UT	D
FRADSWELL	3042	93358	SK007334	137	801	1946	ND	UT	M
BLITHFIELD RES	3048	93536	SK071226	83	716	1944	1961	UT	D
BLITHFIELD RES (TG)	3099	93546	SK075233	103	710	1982	ND	UT	I
BAGOT'S PARK	3101	93592	SK091269	128	730	1982	1982	UT	D
GENTLESHAW	3051	93765	SK049123	227	796	1949	1961	UT	M
HANCH RES.	3054	93864	SK103136	79	706	1918	1918	UT	D
GOLDTHORNE HILL	3277	94265	SO910966	180	720	1982	ND	UT	I
WILLENHALL S.WKS.	3151	94320	SO979983	119	683	1962	1962	UT	D
ROWAY LANE S.WKS	3273	94599	SO986902	134	750	1982	1982	UT	I
WALSALL,ALDRIDGE	3210	94720	SK058010	163	740	1963	ND	UT	D
RAY HALL WRW	3162	94889	SP025945	109	677	1965	1965	UT	I
WEST.BROM NURSERIES	3163	94894	SP018934	134	741	1965	1965	UT	D
ERDINGTON RES.	3214	95170	SP102917	135	725	1912	1961	UT	M
FRANKLEY	3167	95326	SP004801	174	770	1938	1961	UT	D
KINGSTANDING	3177	95646	SP084952	157	729	1944	1961	UT	M
SUTTON COLDFIELD	3276	95702	SP128974	129	720	1982	1961	UT	D
SPRINGBROOK WRW	3281	95861	SP107727	148	750	1985	ND	UT	I
DORRIDGE,WINDMILL FM	3183	96081	SP171733	130	720	1972	1972	UT	D
NORTON GREEN	3280	96110	SP185748	101	710	1983	ND	UT	I
B'HAM, HALL GREEN	3267	96672	SP109798	140	750	1980	1981	UT	D
HIGHTERS HEATH RES	3271	96712	SP086792	158	745	1933	1933	UT	M
ELMDON M.O.	3187	96893	SP167841	98	680	1981	ND	UT	D
WHITACRE NEW W.WKS	3284	97263	SP217911	73	665	1989	1989	UT	D
HUNTS GREEN	3274	97503	SP183975	82	660	1982	1982	UT	D
LITTLE HAY	3194	97900	SK123030	91	726	1927	1961	UT	D
HINCKLEY S.WKS	3198	98210	SP420927	99	655	1928	1962	UT	D
NUNEATON P.S.	3199	98408	SP361923	82	668	1933	1961	UT	D
HARTSHILL NEW S.WKS	3200	98544	SP333955	75	640	1972	1973	UT	D
NAILSTONE,CROWN FARM	3204	98814	SK426077	151	630	1971	1971	UT	D
STOKE GOLDING,CONVNT	3265	99063	SP409974	100	670	1979	1980	UT	D
MARKET BOSWORTH S.WK	3270	99219	SK392028	95	670	1981	1982	UT	D
COTON LANE WRW	3268	99712	SK193057	61	640	1980	1981	UT	M
ELFORD,WEBBS FARM	3285	99829	SK192104	67	625	1991	1991	UT	D
NORTON-JUXTA-TWYCROS	3055	100202	SK318006	127	660	1966	1966	UT	D
OVERSEAL S.WKS	3057	100449	SK291149	88	635	1968	1968	UT	D
CHILCOTE P.S.	3058	100498	SK284103	73	631	1935	1935	UT	D
BARTON-U-NEEDWOOD	3103	100748	SK199183	50	650	1982	1986	UT	D
OUTWOODS	3063	101049	SK227240	94	666	1935	1961	UT	M

KEY TO ABBREVIATIONS

NGR - National Grid Reference
SAAR - Standard Period Average Annual Rainfall 1941-70
ALT - Altitude
AREA - Operational Area — US - Upper Severn; UT - Upper Trent; LS - Lower Severn; LT - Lower Trent
FREQ - Frequency of Reading — M - Monthly; D - Daily; W - Weekly; I - Intermittent
START DATA - Start of Data on Computer Archive; ND - No Data on Archive

TABLE 24
DAILY RAINFALL STATIONS: TRENT CATCHMENT
MET OFFICE NUMBER ORDER

STATION NAME	NRA REF	MET. OFFICE	NGR	ALTITUDE (m)	SAAR (mm)	START RECORD	START DATA	AREA	FREQ
WINSHILL P.S.	3062	101089	SK264229	94	650	1919	1961	UT	M
CLAYMILLS WRW	3100	101151	SK265259	43	650	1982	1982	UT	D
ONECOTE,LOXLEY PK FM	3317	101838	SK045554	290	1110	1978	1979	UT	M
UPPER CASTERN	3320	102035	SK123526	259	1035	1968	1968	UT	D
ASHBOURNE W.WKS	3322	102521	SK187459	179	874	1962	ND	UT	D
TITTESWORTH W.WKS	3331	102848	SJ994585	183	1015	1964	1964	UT	D
WALL GRANGE P.STN	3334	103043	SJ966536	139	896	1882	1882	UT	D
CELLARHEAD,ROWNALL	3579	103047	SJ944492	228	930	1979	ND	UT	D
STANLEY RES.	3573	103072	SJ929519	177	910	1981	ND	UT	I
UTTOXETER S.WKS	3338	104024	SK095345	78	790	1969	1969	UT	D
MARCHINGTON P.O.	3339	104335	SK136307	76	735	1973	1973	UT	D
REPTON	3065	105428	SK302267	70	658	1940	1961	LT	D
DERBY,BRAYFIELD ROAD	3455	105608	SK335338	69	653	1958	1958	LT	D
STANTON-BY-BRIDGE WW	3067	105715	SK374271	44	675	1911	1961	LT	D
STAUNTON HARROLD RES	3066	105837	SK383239	85	636	1962	1962	LT	D
SHARDLOW HALL	3348	106070	SK438304	34	625	1973	1973	LT	D
SLIPPERY STONES	3553	106138	SK168954	290	1450	1978	1979	LT	M
DERWENT DAM	3380	106295	SK175899	249	1275	1960	1968	LT	D
FEATHERBED TOP	3369	106381	SK089928	507	1515	1934	ND	LT	M
WOOD COTTAGE	3462	106430	SK128896	310	1525	1972	1972	LT	D
YORKSHIRE BRIDGE	3379	106584	SK198853	168	1037	1926	1961	LT	D
UPPER BOOTH,G.CLOUGH	3385	106616	SK096854	304	1333	1944	ND	LT	M
EDALE MILL	3388	106686	SK134854	221	1241	1936	1962	LT	D
HOPE	3397	106852	SK169822	177	1032	1929	1961	LT	D
ABNEY	3582	106963	SK199799	290	1100	1991	1991	LT	D
UPPER BURBAGE NO.2	3399	107028	SK265829	411	983	1958	ND	LT	M
PARSONS HOUSE	3552	107047	SK273806	379	950	1978	ND	LT	M
MIDDLETON MOOR	3403	107124	SK205752	3061	1025	1974	1974	LT	D
BARBROOK RES.	3404	107268	SK281770	323	940	1910	1961	LT	D
EASTMOOR,THE PADDOCK	3563	107317	SK308714	290	850	1979	ND	LT	M
CHATSWORTH GARDENS	3407	107389	SK262701	133	842	1861	1878	LT	D
BUXTON,TERRACE SLOPE	3412	107494	SK058734	307	1284	1925	ND	LT	D
STANLEY MOOR	3413	107545	SK053714	351	1325	1973	1974	LT	D
PEAK F'EST,CONIES FM	3545	107821	SK118800	329	1200	1977	1978	LT	D
HARGATEWALL	3421	107875	SK117752	347	1186	1951	1988	LT	M
TIDESWELL	3578	107931	SK155746	255	1090	1986	ND	LT	I
MONYASH	3581	108248	SK151665	270	1120	1990	1990	LT	D
LONGCLIFFE RES	3576	108786	SK228553	366	950	1981	ND	UT	I
WHATSTANDWELL W.WKS	3434	108956	SK326554	75	859	1904	1936	LT	D
ASHOVER	3461	109084	SK349629	178	840	1969	1969	LT	D
OGSTON RES.	3441	109141	SK380598	102	762	1963	1964	LT	D
NEWTON	3442	109225	SK446595	171	760	1971	ND	LT	M
BELPER MEADOWS P.S.	3446	109641	SK340477	69	805	1962	1962	LT	D
MIDDLETON TOP	3567	109722	SK276552	303	910	1979	1980	LT	D
LITTLE EATON,LWR P.S	3449	110105	SK364406	52	719	1965	1965	LT	D
KIRK LANGLEY	3575	110330	SK293392	99	760	1980	ND	LT	I
MARKEATON PARK	3454	110371	SK331377	58	711	1935	ND	LT	D
SPONDON	3577	110518	SK389350	40	620	1910	1911	LT	D
FROLESWORTH,BRAMBLES	3684	110779	SP508903	113	660	1979	1980	LT	D
NARBOROUGH S.WKS	3605	111398	SP549966	74	655	1971	1971	LT	D
HOUGHTON-ON-THE-HILL	3606	111523	SK389035	165	670	1972	1972	LT	D
FLECKNEY	3686	111729	SP656946	101	640	1985	1985	LT	I

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STATION NAME	NRA REF	MET. OFFICE	NGR	ALTITUDE (m)	SAAR (mm)	START RECORD	START DATA	AREA	FREQ
WISTOW HALL	3608	111739	SP641957	94	649	1905	1961	LT	D
WIGSTON S.WKS	3609	111947	SP593967	78	651	1912	1912	LT	D
LEICESTER,SAFFRON LN	3612	112166	SK584021	59	625	1969	1969	LT	M
LEICESTER WATER CNTR	3679	112395	SK563071	100	670	1976	1977	LT	I
WANLIP WRW	3683	112545	SK598117	52	630	1980	1982	LT	D
LEESTHORPE	3617	112704	SK798136	125	650	1972	1972	LT	D
WHISSENDINE	3687	112771	SK829144	103	650	1985	1985	LT	I
WALTHAM ON THE WOLDS	3615	113259	SK804251	174	660	1872	1872	LT	M
FERNELEY SCHOOL	3624	113408	SK751210	111	640	1969	1969	LT	M
BROOKSBY HALL,AG.COL	3680	113774	SK679154	70	620	1975	1975	LT	D
LOWESBY-THE-CEDARS	3688	114060	SK724076	130	670	1987	1987	LT	D
BARKBY HALL	3626	114205	SK637098	69	625	1905	1961	LT	D
THORNTON RES.	3627	114337	SK473072	112	694	1856	1961	LT	D
ULVERSCROFT	3636	114807	SK497117	195	732	1931	1961	LT	D
NEWTOWN LINFORD	3634	114830	SK530095	119	675	1958	ND	LT	D
SWITHLAND RES.	3631	114895	SK555148	52	713	1886	1961	LT	W
BURTON-ON-THE-WOLDS	3629	115083	SK608215	79	640	1972	1972	LT	D
NANPANTAN RES	3632	115174	SK508171	82	702	1878	1882	LT	D
LOUGHBOROUGH	3635	115244	SK529209	41	665	1902	ND	LT	D
MT.ST.BERNARD'S ABBY	3641	115296	SK459158	186	760	1964	1964	LT	I
BLACKBROOK RES.	3644	115306	SK456178	107	694	1899	1899	LT	D
EAST LEAKE HILLS	3648	115831	SK567279	91	571	1963	1973	LT	M
SUTTON BONINGTON	3652	115902	SK507259	48	611	1908	ND	LT	D
KIRKBY S.WKS	3752	116094	SK484548	108	750	1968	1968	LT	D
PYE-BRIDGE WRW	3979	116173	SK439527	84	740	1978	1979	LT	D
NEWTHORPE S.WKS	3899	116429	SK477449	58	700	1971	1972	LT	D
ILKESTON S.WKS	3755	116527	SK483393	41	631	1934	1941	LT	D
WILFORD HILL RES.	3762	117286	SK579351	90	608	1907	1961	LT	M
WATNALL M.O.	3765	117626	SK503456	117	716	1941	ND	LT	D
SNEINTON P.STN	3769	117848	SK592393	25	615	1904	1962	LT	D
HOLME SLUICE NO.2	3771	117867	SK615393	23	591	1965	1965	LT	D
STOKE BARDOLPH S.WKS	3774	118171	SK635417	22	610	1970	1970	LT	D
BURTON JOYCE W.WKS	3776	118217	SK654443	20	637	1900	1961	LT	M
RAMSDALE HILL RES.	3777	118519	SK596483	153	695	1906	1941	LT	D
FARNSFIELD	3780	118731	SK639561	58	695	1967	1967	LT	D
SOUTHWELL,NOTTS.COL	3782	118920	SK696524	70	665	1972	ND	LT	D
WOOLSTHORPE GRANGE	3785	119386	SK838351	57	574	1960	1961	LT	D
HOSE	3791	119838	SK746287	61	610	1967	1967	LT	D
CROPWELL BISHOP	3905	119943	SK681356	35	550	1973	1974	LT	D
BARKESTONE,WILDER FM	3982	120067	SK781349	58	580	1978	1979	LT	D
FLAWBOROUGH HALL	3903	120262	SK782429	30	550	1976	1977	LT	D
ASLOCKTON S.WKS	3993	120439	SK726405	20	580	1981	1982	LT	D
COTHAM NO.2	3995	120636	SK796476	21	560	1982	1982	LT	D
NEWARK,RIVERSIDE RD	3902	120691	SK788523	17	570	1977	1978	LT	D
COLLINGHAM S.WKS	3801	121173	SK828629	9	580	1968	1968	LT	M
BROADWATERS FARM	3980	121285	SK754635	42	580	1977	1978	LT	D
TUXFORD,WESTWOOD	3815	121862	SK714707	73	610	1975	1975	LT	D
RAMPTON HOSPITAL	3806	122024	SK770773	26	560	1969	1969	LT	D
BRAMPTON,MANOR FARM	3986	122165	SK847795	5	580	1979	1980	LT	D
GAINSBOROUGH S.WKS	3814	122500	SK818876	7	595	1975	1975	LT	D
WALKERINGHAM	3812	122646	SK778930	11	580	1968	1968	LT	M
SUTTON-IN-ASHFIELD	3816	122707	SK510595	139	715	1915	1941	LT	D

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STATION NAME	NRA REF	MET. OFFICE	NGR	ALTITUDE (m)	SAAR (mm)	START RECORD	START DATA	AREA	FREQ
MANSFIELD W.R.W.	3818	122775	SK548621	85	695	1973	1973	LT	D
CLIPSTONE W.WKS	3820	122891	SK603643	69	657	1907	1941	LT	M
RAINWORTH,SPRING HIL	3824	123028	SK597592	90	645	1976	1977	LT	D
BOUGHTON P.STN	3823	123261	SK668692	43	626	1900	1941	LT	D
SHIREBROOK S.WKS	3826	123618	SK534674	78	680	1972	1972	LT	D
WARSOP,GLEADTHORPE	3828	123712	SK591699	46	613	1951	ND	LT	D
CLOWNE S.WKS	3838	123963	SK503755	115	690	1976	1977	LT	D
CLUMBER PARK	3836	124227	SK623750	47	640	1972	1972	LT	D
BABWORTH HALL	3841	124476	SK686810	30	583	1924	1961	LT	D
WISETON P.STN	3844	124691	SK711893	6	575	1965	ND	LT	D
HARDWICK GRANGE	3992	124936	SK485863	107	630	1981	1982	LT	D
MANTON W.R.W.	3901	125215	SK609792	27	620	1977	1978	LT	D
ABBEY LATHE S.WKS	3855	125416	SK538903	66	660	1974	1974	LT	D
CARLTON-IN-LINDRICK	3854	125581	SK589838	30	625	1961	1961	LT	D
FINNINGLEY MET.OFFCE	3908	125842	SK659989	10	580	1972	ND	LT	D
OWSTON FERRY	3869	126521	SE805019	11	570	1972	1972	LT	D
WILLOUGHTON MANOR	3994	126701	SK935932	46	640	1982	1982	LT	D
LAUGHTON	3859	126787	SK864982	23	620	1972	1972	LT	D
WARMSWORTH S.WKS	3874	127749	SK550998	21	600	1969	1969	LT	D
CANDY FARM P.STN	3878	127979	SK698031	1	575	1957	1961	LT	D
CROWLE,DIRTNESS P.S.	3882	128787	SE749098	3	568	1881	1941	LT	M
KEADBY P.STN	3884	128856	SE835112	6	611	1947	1961	LT	D

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STATION NAME	NRA REF	MET. OFFICE	NGR	ALTITUDE (m)	SAAR (mm)	START RECORD	START DATA	AREA	FREQ
CARREG WEN	1600	420649	SN829885	576	2400	1968	1973	US	I
MOEL CYNEDD	1153	420655	SN843877	358	2200	1968	1968	US	D
GARTH-FAWR	1071	420868	SN996791	366	1110	1962	1962	US	D
LLANIDLOES	1294	420983	SN948837	171	1220	1975	1975	US	D
BRYN-Y-FEDWEN	1605	421048	SN836952	509	1825	1971	ND	US	M
DOL BACHOG	1008	421090	SN884936	314	1597	1949	1962	US	D
WAUN-LLWYD,BARCUD	1610	421125	SN841910	442	2100	1971	ND	US	M
DOLYDD	1152	421140	SN873905	297	1780	1968	1968	US	D
CLYWEDOG DAM	1110	421234	SN911870	290	1480	1969	1971	US	D
LLANDINAM	1120	421484	SO022894	131	980	1971	1971	US	D
CARNO,28 TREMYNODFFA	1344	421954	SN960965	191	1280	1977	1978	US	D
DOLFOR	1324	422328	SO102870	312	1050	1975	1976	US	D
GREGYNOG HALL	1057	422493	SO085976	192	970	1965	1965	US	D
LOWER CEFN PERFA	1400	422693	SO129892	229	950	1982	1982	US	D
GARTHMYL LODGE	1403	423008	SO193990	85	790	1983	1983	US	D
MANAFON	1231	423292	SJ112024	134	960	1972	ND	US	D
BROADWAY HALL,C'STOK	1414	423499	SO299930	145	780	1990	ND	US	D
CHIRBURY,OAKLEE	1384	423879	SO261983	108	740	1982	1982	US	D
WELSHPOOL,B.FROCHAS	1503	424199	SJ195081	213	880	1972	1972	US	D
WELSHPOOL WRW	1221	424216	SJ233073	70	850	1972	1972	US	D
HOPE,BUTTINGTON VIEW	1341	424242	SJ259074	198	840	1977	1982	US	D
WERN VIEW	1239	424573	SJ252132	67	820	1976	1977	US	D
RHIWARGOR	1620	424744	SH963244	262	1828	1943	ND	US	M
YR-EITHIN	1642	424767	SH955269	488	1950	1978	ND	US	M
GADFA	1623	424813	SH928232	464	2273	1938	ND	US	M
AFON CEDIG,H.EGLWYS	1631	424927	SH993253	433	1867	1951	ND	US	M
BRYN GWYN	1633	424961	SH999196	400	1739	1879	ND	US	M
LAKE VYRNWY	1134	425001	SJ017188	303	1633	1944	ND	US	D
LLANFIHANGEL	1333	425345	SJ089167	274	1300	1975	1976	US	D
ABERCANNON FARM	1002	425785	SH962069	244	1771	1949	1961	US	D
CWM GOLEU	1340	426180	SJ133057	236	1040	1977	ND	US	D
LLANFYLLIN WRW	1334	426593	SJ154188	113	1080	1976	1976	US	D
LLANSANTFFRAID,WAEN	1366	426762	SJ235197	78	800	1979	1980	US	D
LLANGYNOG WRW	1700	426853	SJ053258	168	1450	1975	1976	US	D
HIRNANT	1640	426967	SJ048225	233	1490	1941	ND	US	M
RHIWLAS	1149	427166	SJ114260	228	1190	1944	1961	US	D
LLANGEDWYN	1053	427387	SJ174243	116	870	1961	1961	US	D
PENYGWELY RES,TY-UCH	1794	427444	SJ221319	322	1128	1987	1988	US	D
LLANYMYNECH	0	427745	SJ267211	75	750	1987	1987	US	W
LLANFORDA RES	1536	427859	SJ268296	213	938	1897	1961	US	D
OSWESTRY SCHOOL	0	427863	SJ385293	139	850	1985	1986	US	D
CRICKHEATH MEADOWS	1362	428051	SJ294230	69	740	1979	1980	US	D
PRESTON MONTFORD	1538	428553	SJ432144	61	675	1976	1981	US	D
DUDLESTON HEATH	1222	428890	SJ366357	99	790	1972	1972	US	D
RUYTON-ELEVEN-TOWNS	1050	429166	SJ392224	76	709	1960	1960	US	D
SHELTON	1122	429413	SJ465135	87	720	1970	1970	US	D
HANWOOD	1282	429987	SJ432095	79	710	1973	1973	US	D
WESTBURY	1233	430038	SJ355095	130	770	1972	1972	US	D
WILLOUGHBRIDGE	1288	430632	SJ752399	119	820	1981	1982	US	D
MARKET DRAYTON WRW	1072	430917	SJ669333	76	730	1978	1979	US	D
SANDFORD	1280	431004	SJ583340	84	740	1973	1973	US	D

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STOKE-ON-TERN	1404	431151	SJ642290	76	730	1984	ND	US	D
PEPLOW,HOME FARM	1345	431312	SJ636247	69	670	1978	1979	US	D
MORETON	1236	431584	SJ797170	88	680	1972	1972	US	D
NORBURY JUNCTION	0	431663	SJ794228	101	713	1910	1961	US	W
NEWPORT	1123	432251	SJ712204	64	660	1903	ND	US	D
SLEAP COTTS,CRUDGING	1407	432336	SJ630176	53	610	1985	1985	US	D
RUSHMOOR WRW	1339	432811	SJ617135	50	660	1979	1987	US	D
COCKSHUTT	1224	433056	SH436287	99	710	1974	1975	US	D
WEM W.R.W.	1363	433237	SJ518286	76	690	1979	1980	US	D
SHAWBURY MET-OFFICE	1150	433710	SJ553220	72	670	1944	1987	US	D
ALL STRETTON	1281	434078	SO457958	256	900	1973	1973	US	D
DORRINGTON	1229	434223	SJ481033	99	710	1972	1972	US	D
HARNAGE GRANGE	1041	434595	SJ569021	117	695	1935	1962	US	D
MUCH WENLOCK	1320	434942	SO619999	168	780	1975	1975	US	D
COALPORT	1293	435131	SJ707015	40	720	1974	1974	US	D
WESTON PARK	1544	435388	SJ806108	113	692	1873	1961	US	D
COSFORD W.WKS	1151	435509	SJ780046	59	668	1965	1965	US	D
HATTON GRANGE	1545	435528	SJ764043	80	713	1871	1899	US	D
PATTINGHAM	1238	435970	SO826992	122	680	1973	1973	US	D
HALFPENNY GREEN	1289	436070	SO818914	76	700	1974	1974	US	D
MORVILLE HALL	1405	436549	SO669940	91	696	1985	1985	US	D
HAMPTON LOADE	1003	436697	SO752870	70	660	1969	1969	LS	D
TRIMPLEY W.WKS	1548	437138	SO772789	41	730	1967	1967	US	D
BAYTON COMMON	1247	437158	SO710729	198	750	1972	1972	US	D
HAYLEY GREEN P.STA	1549	437487	SO941815	180	815	1959	1961	US	D
LYE WRW	1521	437694	SO919849	75	705	1944	1961	US	D
ASHWOOD P.STN	1553	438251	SO866878	63	656	1919	1961	US	D
ENVILLE HALL	1029	438304	SO825866	99	727	1960	1961	US	D
HAGLEY W.R.W	1273	438639	SO898799	81	750	1976	1977	US	D
KIDDERMIN.AGGBOROUGH	1411	438716	SO835759	61	660	1982	1988	LS	D
SHENSTONE	1316	438937	SO863735	76	650	1979	1980	US	D
HOLT LOCK	0	439253	SO821634	17	644	1880	1908	US	D
BROMSGROVE WRW	1173	439482	SO959685	67	683	1937	1961	US	D
DROITWICH,PETRSFIELD	1511	439672	SO906629	55	640	1973	1973	US	D
ELMBRIDGE	1253	439790	SO901678	56	645	1972	1972	US	D
LINCOMB LOCK	1116	439993	SO821693	19	673	1880	ND	US	D
BEVERE LOCK	0	440112	SO837595	16	642	1880	1961	LS	D
WORCESTER W.WKS	1557	440198	SO841565	17	651	1888	1961	US	D
DIGLIS LOCK	1108	440229	SO847533	15	633	1880	1908	LS	D
KNIGHTON,VICTORIA RD	1043	440707	SO287725	183	1009	1960	1961	US	D
BRAMPTON BRYAN	1067	440885	SO371762	131	869	1961	1961	US	D
TWO CROSSES	1048	441059	SO238866	434	1072	1961	1961	US	D
CLUN	1255	441305	SO309801	262	920	1972	1972	US	D
CLUNBURY	1066	441373	SO372805	158	825	1961	1961	US	D
LEINTHALL EARLS	1252	442025	SO444677	134	850	1976	1977	US	D
RATLINGHOPE,COATES	1012	442525	SO393954	328	890	1968	1968	US	D
CHURCH STRETTON WRW	1386	442927	SO438909	180	860	1980	1981	US	D
CRAVEN ARMS WRW	1271	443093	SO437811	111	780	1975	1976	US	D
OAKLY PARK	1142	443216	SO491762	91	775	1899	1899	US	D
LONGVILLE,WILDERHOPE	1795	443365	SO545928	229	760	1989	1989	US	D
WESTHOPE,GARDEN COTT	1148	443638	SO475863	186	772	1936	1961	US	D
LUDLOW WRW	1312	443891	SO516732	72	790	1978	1979	US	D

KEY TO ABBREVIATIONS

NGR - National Grid Reference
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ALT - Altitude
AREA - Operational Area — US - Upper Severn; LS - Lower Severn; UT - Upper Trent; LT - Lower Trent
FREQ - Frequency of Reading — M - Monthly; W - Weekly; D - Daily; I - Intermittent
START DATA - Start of Data on Computer Archive; ND - No Data on Archive

TABLE 24
DAILY RAINFALL STATIONS: SEVERN CATCHMENT
MET OFFICE NUMBER ORDER

STATION NAME	NRA REF	MET. OFFICE	NGR	ALTITUDE (m)	SAAR (mm)	START RECORD	START DATA	AREA	FREQ
CLEE STANTON	1410	444353	SO580788	255	850	1990	ND	US	D
KYRE	1022	444643	SO638620	99	747	1959	1961	US	D
TENBURY WRW	1313	444765	SO604685	73	700	1978	1979	US	D
BURWARTON	1416	445032	SO618853	253	890	1990	ND	US	D
HOPTON WAFERS	1392	445388	SO636764	169	870	1982	1982	US	D
EASTHAM	1277	445563	SO669680	88	710	1977	1978	US	D
KINGSWOOD	0	445778	SO744598	53	690	1961	1961	US	D
WHITBOURNE W.WKS	1519	445799	SO728573	30	700	1967	1967	US	D
COLWALL,EVENDINE LA.	0	446072	SO757412	148	720	1981	1982	LS	D
OLD STORRIDGE	1512	446330	SO750514	84	751	1962	1963	US	D
MONKWOOD GREEN	1272	446551	SO797602	50	670	1976	1982	US	D
GREAT MALVERN	0	446802	SO791470	44	710	1974	ND	LS	D
MALVERN	1563	446823	SO790461	62	747	1955	ND	LS	D
CLEVELODE FARM	0	446888	SO833460	30	660	1981	1982	LS	D
LONGDON,ST.MARY'S	1266	447413	SO837363	23	670	1974	1975	LS	D
TEWKESBURY P.STN	1564	447570	SO890337	14	612	1913	1961	LS	D
TEWKS.UPPER LODE	0	447576	SO881328	12	626	1880	1961	LS	D
WELFORD,NEW	1415	447652	SP639800	115	715	1990	ND	LS	D
STANFORD RES	1155	447787	SP596804	112	686	1942	1961	LS	D
LUTTERWORTH WRW	1397	448389	SP531830	107	670	1976	1977	LS	D
RUGBY	1565	448545	SP507749	117	652	1957	ND	LS	D
COVENTRY,WALSGRAVE	1401	449242	SP380798	75	660	1981	1982	LS	D
COVENTRY,BABLAKE SCH	0	449609	SP326797	93	670	1984	ND	LS	D
FINHAM WRW	1045	449958	SP334740	61	644	1960	1961	LS	D
STAVERTON	1049	450183	SP537611	168	709	1961	1961	LS	D
DRAYCOTE RES	1200	450489	SP469693	98	620	1971	1971	LS	D
FENNY COMPTON SCHOOL	1081	450732	SP418524	116	690	1969	1970	LS	D
SOUTHAM,76 BANBURY	1402	451117	SP416613	82	630	1983	1983	LS	D
LEAMINGTON SPA	1766	451517	SP309655	49	620	1980	ND	LS	I
HATTON	0	451683	SP243669	98	678	1938	1961	LS	W
MORETON MORRELL	1166	452001	SP306553	85	622	1954	ND	LS	D
WELLESBOURNE	1165	452036	SP271565	47	599	1950	ND	LS	D
WELLESBOURNE NO.2	0	452037	SP271565	47	600	1978	1979	LS	D
LOWER BRAILES SCHOOL	1204	452840	SP308393	128	680	1971	1971	LS	D
CHIPPING CAMPDEN WRW	1761	453096	SP164393	123	750	1981	1982	LS	D
BLOCKLEY	1574	453191	SP165348	137	745	1925	1928	LS	D
SHIPSTON-ON-STOUR	1087	453420	SP268411	67	625	1981	1982	LS	D
ILMINGTON	1203	453836	SP209436	119	680	1971	1971	LS	D
STRATFORD,MILCOTE	1086	453923	SP182529	47	600	1990	ND	LS	D
STRATFORD.EXP.	0	454099	SP164549	49	623	1941	ND	LS	D
LYE BR.(ALVECHURCH)	1201	454433	SP032717	104	750	1975	1976	LS	D
STUDLEY WRW	1016	454739	SP080625	61	680	1975	1976	LS	D
BROADWAY WRW	1210	455992	SP081378	69	705	1979	1980	LS	D
SUDELEY LODGE	1580	456197	SP041270	152	790	1976	1977	LS	D
DIDBROOK FIELDS	1593	456333	SP048320	80	715	1977	ND	LS	D
HAMPTON PARK WRW	1111	456523	SP030446	30	620	1957	1961	LS	D
ASTWOOD BANK	1581	456753	SP045611	139	700	1976	ND	LS	D
PERSHORE COLL.HORT.	1169	457134	SO959447	40	641	1952	ND	LS	D
HEWLETTS RES	1583	458331	SO973222	128	707	1890	1893	LS	D
BROCKHAMPTON WRW	1726	458427	SO944266	40	645	1983	1984	LS	D
DOWDESWELL RES NO.2	1140	458845	SO983198	100	740	1979	1980	LS	D
CHELTENHAM.MONTPEL	0	458905	SO946218	65	665	1903	ND	LS	D

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TABLE 24
DAILY RAINFALL STATIONS: SEVERN CATCHMENT
MET OFFICE NUMBER ORDER

STATION NAME	NRA REF	MET. OFFICE	NGR	ALTITUDE (m)	SAAR (mm)	START RECORD	START DATA	AREA	FREQ
WHITCOMBE RES	1522	459378	SP903151	84	732	1863	1882	LS	D
STAPLOW	1391	459695	SO693416	70	700	1982	1982	LS	D
LEDBURY WRW	1119	459794	SO701372	46	700	1976	1976	LS	D
UPTON BISHOP,T'WOOD	1796	460030	SO663272	108	720	1989	1989	LS	D
BROMSBERROW HEATH PS	1175	460147	SO738332	55	717	1908	1961	LS	D
STAUNTON WRW	1274	460418	SO785282	21	675	1973	1977	LS	D
TAYNTON	1516	460748	SO742216	25	755	1928	1961	LS	D
HARESCOMBE GRANGE	1587	460921	SO843105	170	770	1901	1961	LS	D
HEMPSTED(NETHERIDGE)	1146	460970	SO811157	12	665	1959	1961	LS	D
MISERDEN PARK	1141	461467	SO938088	232	941	1930	1961	LS	D
SHEEPSCOMBE	1251	461777	SO897104	134	860	1972	1972	LS	D
AVENING	1261	461940	ST885982	130	915	1973	1973	US	D
KINGSCOTE WIND.COTT.	0	462027	ST811967	229	910	1984	1984	US	D
WOODCHESTER,HOME GRD	1793	462125	SO838026	76	900	1987	1987	LS	D
WHITMINSTER	1518	462252	SO756093	10	776	1891	1961	LS	D
CINDERFORD CRUMP MED	1279	463377	SO646138	152	875	1977	1978	LS	D
SLING,MARSH LANE	1260	463587	SO585076	183	1010	1973	1973	LS	D
DOWN HOUSE,BROMYARD	1138	475361	SO671545	150	740	0	ND	US	D
BERKELEY	1178	420216	ST674995	8	790	0	ND	LS	D
THORNBURY CASTLE SCH	1177	419364	ST636906	34	825	0	ND	LS	D

KEY TO ABBREVIATIONS

NGR - National Grid Reference
SAAR - Standard Period Average Annual Rainfall 1941-70
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Table 25
CLIMATE STATION CATALOGUE

STATION NAME	AREA	MET. OFFICE REFERENCE NUMBER	NATIONAL GRID REFERENCE	ALTITUDE (m)	STATION TYPE	DATE OF FIRST RECORD
GREENFIELDS	UPPER SEVERN	431395	SJ 614 261	85	FULL	1981
DOLYDD	UPPER SEVERN	-	SN 873 905	297	Air Temperature & Wind Run	Real Time Only
CAERSWS	UPPER SEVERN	-	SO 040 925	137	Air Temperature & Wind Run	Real Time Only
VYRNWY	UPPER SEVERN	-	SJ 017 188	303	Air Temperature & Wind Run	Real Time Only
BISHOPS CASTLE	UPPER SEVERN	-	SO 338 873	251	Air Temperature & Wind Run	Real Time Only
HARTLEBURY	UPPER SEVERN	-	SO 846 696	73	Air Temperature & Wind Run	Real Time Only
LANGLEY	LOWER SEVERN	-	SP 005 282	165	Air Temperature	Real Time Only
LEDBURY	LOWER SEVERN	-	SO 701 372	38	Air Temperature & Wind Run	Real Time Only
WELLESBOURNE	LOWER SEVERN	-	SP 271 565	47	Air Temperature & Wind Run	Real Time Only
BRAUNSTON	LOWER SEVERN	-	SP 533 658	107	Air Temperature	Real Time Only
STONE	UPPER TRENT	-	SJ 878 321	107	Air Temperature & Wind Run	Real Time Only
FRANKLEY	UPPER TRENT	-	SP 007 801	174	Air Temperature & Wind Run	Real Time Only
WALSALL WOOD	UPPER TRENT	-	SK 038 042	140	Air Temperature & Wind Run	Real Time Only
HOLLINSCLOUGH	UPPER TRENT	-	SK 066 665	291	Air Temperature & Wind Run	Real Time Only
CLAY MILLS	UPPER TRENT	-	SK 265 259	43	Air Temperature & Wind Run	Real Time Only
TIDESWELL	LOWER TRENT	-	SK 155 746	255	Air Temperature & Wind Run	Real Time Only
BARBROOK	LOWER TRENT	-	SK 281 770	323	Air Temperature & Wind Run	Real Time Only
NARBOROUGH	LOWER TRENT	-	SP 549 966	74	Air Temperature & Wind Run	Real Time Only
BROOKSBY	LOWER TRENT	-	SK 679 154	70	Air Temperature & Wind Run	Real Time Only
WORKSOP MANTON	LOWER TRENT	-	SK 608 791	62	Air Temperature & Wind Run	Real Time Only

Table 26
Groundwater Observation Borehole Network - Trent Catchment

NAME OF BOREHOLE	REF NO.	GRID REF	AQUIFER	GROUNDWATER UNIT	UNIT CODE	START OF RECORD	AREA
Little Grange Farm	1035	SJ 9260 3910	SS	Forsbrook	F.3.6	17.06.80	UT
Hardiwick Farm	1034	SJ 9580 4360	SS	Forsbrook	F.3.6	17.06.80	UT
Meadowside Farm	1003	SJ 9480 4150	SS	Forsbrook	F.3.6	04.02.74	UT
Moddershall	1036	SJ 9307 3661	SS	Spot	F.3.7	17.06.80	UT
Wheatsheaf	1039	SJ 9300 3850	SS	Spot	F.3.7	20.06.80	UT
Rough Close	1004	SJ 9260 3910	SS	Spot	F.3.7	02.02.73	UT
Squirrels Leap	8005	SJ 9268 3745	SS	Spot	F.3.7	04.02.76	UT
Fair Oak	1006	SJ 7651 3322	SS	Bishops Wood	F.4.1	13.10.66	UT
Bishops Offley	1030	SJ 7835 2990	SS	Bishops Wood	F.4.1	23.05.80	UT
Greatwood Farm	1033	SJ 7800 3120	SS	Bishops Wood	F.4.1	17.06.80	UT
Croxton (Ginger Lane)	1023	SJ 7885 3182	SS	Bishops Wood	F.4.1	07.04.77	UT
Croxton Bank	1056	SJ 7830 3270	SS	Bishops Wood	F.4.1	01.02.87	UT
Shutt Lane	1059	SJ 7860 3300	SS	Bishops Wood	F.4.1	12.08.88	UT
Windmill Lane	1060	SJ 7820 3220	SS	Bishops Wood	F.4.1	12.08.88	UT
Podmore	1022	SJ 7840 3550	MM	Minor Aquifer	24-UT	13.10.66	UT
Broughton Hall	1032	SJ 7650 3400	MM	Minor Aquifer	24-UT	13.08.80	UT
Stabhill	1029	SJ 8499 3665	SS	Hatton	F.4.2	19.02.79	UT
Sheldon-U-Harley	1043	SJ 8220 3940	SS	Hatton	F.4.2	30.06.81	UT
Upper Hatton Wood	1057	SJ 8310 3770	SS	Hatton	F.4.2	20.05.88	UT
Standon	1062	SJ 8210 3480	SS	Hatton	F.4.2	20.05.88	UT
Wing House	1044	SJ 8610 3670	SS	Tittensor	F.4.3	30.06.81	UT
Brickhouse Farm	1031	SJ 9526 2466	SS	Hopton	F.4.6	17.06.80	UT
Stone	1005	SJ 9526 2466	SS	Oulton	F.4.4	29.11.74	UT
Buildings Farm	1026	SJ 9550 2014	SS	Teddesley	F.4.8	13.07.78	UT
Bednall Head	1008	SJ 9706 1749	SS	Teddesley	F.4.8	14.10.72	UT
Teddesley Park	1024	SJ 9659 1632	SS	Teddesley	F.4.8	12.05.77	UT
Brocton Reserve Pond	1046	SJ 9680 1880	SS	Teddesley	F.4.8	08.09.82	UT
Brocton Reserve BH	1045	SJ 9680 1880	SS	Teddesley	F.4.8	08.09.82	UT
Woolgarston	1009	SJ 9410 1390	SS	Teddesley	F.4.8	26.11.73	UT
Sherbrooke Valley	1047	SJ 9885 1665	SS	Rugeley	F.4.7	20.01.83	UT
Dry Pits	1051	SJ 9855 1888	SS	Rugeley	F.4.7	20.03.87	UT
Hilton Colliery	1010	SJ 9405 0434	SS	Coven	F.4.9	29.01.73	UT
Codsall WRW	1025	SJ 8840 0370	SS	Coven	F.4.9	13.07.78	UT
Four Crosses	1007	SJ 9580 0968	SS	Coven	F.4.9	04.07.69	UT
Coven Lane	1048	SJ 8980 0450	SS	Coven	F.4.9	31.10.83	UT
Cat and Kittens	1050	SJ 9230 0500	SS	Coven	F.4.9	14.03.84	UT
Ibstock	1212	SK 4047 0905	SS	Coalville	F.0.2	05.05.72	UT
Royle Farm	1014	SK 2540 1900	SS	Burton	F.0.4	24.11.72	UT
Repton Park Farm	1015	SK 3130 2400	SS	Burton	F.0.4	03.12.73	UT
Branston	1019	SK 2345 2163	SS	Burton	F.0.4	17.01.69	UT
Clays Lane	1053	SK 2280 2180	SD	Minor Aquifer	15-UT	01.01.86	UT
Green Lane (No 1)	1054	SK 2000 2050	SD	Burton Gravels	15-UT	01.01.86	UT
Green Lane (No 2)	1055	SK 2000 2050	SD	Burton Gravels	15-UT	01.01.86	UT
Grangewood	1021	SK 2731 1419	SS	Measham	F.0.5	31.01.67	UT
Whitehouse	1018	SK 2731 1419	SS	Measham	F.0.5	28.10.66	UT
Barnsheath	1028	SK 3280 1010	SS	Measham	F.0.5	21.09.78	UT
Newton Regis	1211	SK 2818 0737	SS	Warton	F.0.6	27.02.70	UT
Untd Biscuits (Ashby)	1027	SK 3517 1785	CM	Swadlincote	D.0.2	12.11.78	UT
Bog Lane	1042	SK 3732 2434	N	Melbourne	D.0.3	25.03.81	UT
Pipe Hall	1064	SK 0996 0975	SS	Lichfield	F.5.1	01.01.91	UT
Wiltall	1013	SK 1175 0898	SS	Lichfield	F.5.1	27.08.69	UT
Whittington	1223	SK 1550 0650	SS	Lichfield	F.5.1	20.05.81	UT
Stubbers Green	1221	SK 0510 0740	SS	Shenstone	F.5.2	02.09.76	UT
Nuttalls Farm	1203	SK 0670 0120	SS	Shenstone	F.5.2	20.08.75	UT
Shireoak	1202	SK 0601 0423	SS	Shenstone	F.5.2	11.12.70	UT
Weeford Flats	1200	SK 1440 0464	SS	Shenstone	F.5.2	06.07.73	UT
Sutton Park	1222	SP 1040 9610	SS	Sutton	F.5.3	20.05.71	UT
Upper Trinity	1214	SP 0833 8625	SS	Birmingham	F.5.4	07.07.71	UT
Dares Brewery	1215	SP 0761 8519	SS	Birmingham	F.5.4	07.07.71	UT
Nechells	1207	SP 0930 8920	SS	Birmingham	F.5.4	03.11.71	UT

KEY TO ABBREVIATIONS

SD Superficial Deposits
SS Sherwood Sandstones
CM Coal Measures
N Namurian Millstone Grit
ML Magnesian Limestone [Lower]
MM Minor Aquifer e.g. Mercia Mudstones
LL Lincolnshire Limestone
D Dinantian Carboniferous Limestone

Table 26
Groundwater Observation Borehole Network - Trent Catchment

NAME OF BOREHOLE	REF NO.	GRID REF	AQUIFER	GROUNDWATER UNIT	UNIT CODE	START OF RECORD	AREA
Joseph Harris	1205	SP 0699 9140	SS	Birmingham	F.5.4	03.05.72	UT
Perry Barr	1206	SP 0590 9130	SS	Birmingham	F.5.4	20.12.72	UT
Constitution Hill	1208	SP 0670 8760	SS	Birmingham	F.5.4	29.05.74	UT
Longbridge	1210	SP 0072 7755	SS	Longbridge	F.8.8	30.10.73	UT
Cowburns	1213	SP 3609 9102	SS	Nuneaton	F.0.7	21.01.72	UT
Robinsons End	1217	SP 3175 9106	CM	Arley	D.0.1	29.11.72	UT
Charity Farm	1218	SP 2640 9700	CM	Arley	D.0.1	24.05.74	UT
Abbey Green Farm	1448	SJ 9790 5740	SS	Leek	F.3.8	06.07.82	UT
High Up Farm	1445	SJ 9734 5816	SS	Leek	F.3.8	22.12.77	UT
St Edwards	1407	SJ 9775 5362	SS	Leek	F.3.8	24.12.70	UT
Highgate Farm	1445	SJ 9625 5867	SS	Leek	F.3.8	01.07.86	UT
Tean	1447	SK 0090 3980	SS	Tean	F.3.5	05.05.77	UT
Stubwood	1408	SK 0970 4000	SS	Greatgate	F.3.4	09.11.66	UT
Sunnybank Farm	1446	SK 0360 4065	SS	Greatgate	F.3.4	12.11.76	UT
Alton	1456	SK 0676 4136	SS	Alton	F.3.3	01.08.86	UT
Wooton Lodge	1405	SK 0676 4136	SS	Alton	F.3.3	05.05.72	UT
Burton Shutts	1412	SK 2539 4431	SS	Shirley	F.3.1	12.06.72	UT
Eggington Creamery	1409	SK 2610 2969	SS	Kirk Langley	F.2.3	30.09.66	UT
Sandy Lane	1401	SK 3002 3839	SS	Kirk Langley	F.2.3	03.11.66	LT
Offiler's Brewery	1415	SK 3522 3508	SS	Derby North	F.2.1	28.11.68	LT
Alstonfield	1420	SK 1290 5550	D	Alstonfield	D.3.3	16.05.74	UT
Landcroft Farm	1441	SK 0945 5927	D	Alstonfield	D.3.3	23.03.77	UT
Dowlow	1427	SK 1050 6790	D	Alstonfield	D.3.3	06.10.72	UT
Brassington	1435	SK 2226 5420	D	Alstonfield	D.3.3	12.12.75	UT
Two Dale Barn	1437	SK 1940 5580	D	Alstonfield	D.3.3	04.08.77	UT
Wardlow	1421	SK 0860 4770	D	Alstonfield	D.3.3	17.05.74	UT
Oddo House Farm	1431	SK 2179 6069	D	Matlock	D.3.4	11.04.69	LT
Nutseats Quarry	1433	SK 2368 6584	D	Matlock	D.3.4	11.03.76	LT
Ryder Point	1419	SK 2630 5650	D	Matlock	D.3.4	03.02.76	LT
Hallam Shafts	1454	SK 2930 5480	D	Matlock	D.3.4	20.12.83	LT
Dalehead Farm	1430	SK 2077 6897	D	Buxton	D.3.5	30.04.76	LT
Great Hucklow	1424	SK 1778 7762	D	Buxton	D.3.5	11.04.69	LT
Peak Forest	1426	SK 1200 7880	D	Buxton	D.3.5	21.08.73	LT
Bee Low	1444	SK 0850 7900	D	Buxton	D.3.5	12.10.77	LT
Victory Quarry	1443	SK 0751 7677	D	Buxton	D.3.5	15.03.77	LT
Highcliffe Farm	1442	SK 0820 7135	D	Buxton	D.3.5	15.12.76	LT
Bull i'thorn	1423	SK 1280 6656	D	Buxton	D.3.5	11.04.69	UT
Big Moor	1416	SK 2808 7460	N	Hathersage	D.2.3	11.11.48	LT
Cherry Tree	1713	SE 7154 1000	SS	Doncaster	F.1.1	20.08.68	LT
Stainforth	1715	SE 6411 1029	SS	Doncaster	F.1.1	01.05.69	LT
Swinnow Wood	1716	SE 6307 9355	SS	Doncaster	F.1.1	23.12.69	LT
Blaxton	1718	SE 6869 0072	SS	Doncaster	F.1.1	02.04.70	LT
Pighill Thorne	1719	SE 7022 1593	SS	Doncaster	F.1.1	22.10.71	LT
Rooks Farm	1720	SK 7062 9976	SS	Doncaster	F.1.1	04.09.74	LT
Boston Park	1717	SE 6776 0456	SS	Doncaster	F.1.1	22.10.67	LT
Armthorpe	1807	SE 6340 0480	SS	Doncaster	F.1.1	09.03.81	LT
Branton	1809	SE 6370 0070	SS	Doncaster	F.1.1	09.03.81	LT
Haworth	1810	SK 6110 9210	SS	Doncaster	F.1.1	09.03.81	LT
Bescarr	1811	SE 5990 0110	SS	Doncaster	F.1.1	09.03.81	LT
Serlby Park	1861	SK 6333 8988	SS	Ranskill	F.1.2	01.01.91	LT
Danes Hill	1725	SK 6736 8646	SS	Ranskill	F.1.2	11.11.69	LT
Crossley Hill	1722	SK 6100 8374	SS	Ranskill	F.1.2	03.12.69	LT
Kilton Forest	1727	SK 6001 8096	SS	Ranskill	F.1.2	18.08.71	LT
Barnby Moor	1728	SK 6650 8470	SS	Ranskill	F.1.2	30.08.74	LT
Grange Farm	1801	SK 6611 8475	SS	Ranskill	F.1.2	24.08.81	LT
Fenton Lane	1862	SK 7973 8302	SS	Clumber	F.1.3	01.01.91	LT
Lady Well Lane	1863	SK 7480 7800	SS	Clumber	F.1.3	01.01.91	LT
Morris Dancers	1730	SK 6448 7257	SS	Clumber	F.1.3	28.10.69	LT
Gamston	1747	SK 7033 7655	SS	Clumber	F.1.3	28.10.69	LT
Dutchess Plantation	1729	SK 5824 7520	SS	Clumber	F.1.3	19.11.69	LT
Manton Lodge	1734	SK 6295 7740	SS	Clumber	F.1.3	11.02.77	LT

AQUIFER: KEY TO ABBREVIATIONS

SD Superficial Deposits
SS Sherwood Sandstones
CM Coal Measures
N Namurian Millstone Grit
ML Magnesian Limestone [Lower]
MM Minor Aquifer e.g. Mercia Mudstones
LL Lincolnshire Limestone
D Dinantian Carboniferous Limestone

Table 26
Groundwater Observation Borehole Network - Trent Catchment

NAME OF BOREHOLE	REF NO.	GRID REF	AQUIFER	GROUNDWATER UNIT UNIT	CODE	START OF RECORD	AREA
BP Bothamsall	1853	SK 6630 7420	SS	Clumber	F.1.3	01.10.87	LT
Fanny Kays Cottage	1855	SK 6720 7990	SS	Clumber	F.1.3	01.10.87	LT
Bilsthorpe	1736	SK 6423 6142	SS	Clipstone	F.1.4	12.08.87	LT
Coxmoor	1731	SK 5215 5763	SS	Clipstone	F.1.4	28.10.69	LT
Clipstone Forest	1793	SK 6040 6230	SS	Clipstone	F.1.4	19.06.79	LT
Watch Hill	1735	SK 6135 5910	SS	Clipstone	F.1.4	28.10.69	LT
Peafield	1732	SK 5632 6440	SS	Clipstone	F.1.4	28.10.69	LT
Holly Lodge	1816	SK 5550 5580	SS	Clipstone	F.1.4	23.06.75	LT
BP Egmanton	1854	SK 7546 6816	SS	Clipstone	F.1.4	01.10.87	LT
Catfoot Lane	1820	SK 6060 4590	SS	Blidworth	F.1.6	23.06.75	LT
Loudham Grange	1831	SK 6480 4700	SS	Blidworth	F.1.6	24.06.75	LT
Cliff Farm	1826	SK 6780 4680	SS	Blidworth	F.1.6	16.05.75	LT
Hill Farm	1818	SK 6590 4900	SS	Blidworth	F.1.6	08.07.75	LT
Mill Farm	1829	SK 6300 5000	SS	Blidworth	F.1.6	08.07.75	LT
Meridian	1739	SK 6140 4920	SS	Blidworth	F.1.6	15.12.67	LT
Oxton Hill Reservoir	1812	SK 6490 5180	SS	Blidworth	F.1.6	04.06.75	LT
Oxton	1738	SK 6249 5189	SS	Blidworth	F.1.6	28.10.69	LT
Loath Hill	1814	SK 6330 5410	SS	Blidworth	F.1.6	09.09.75	LT
New Hall Reservoir	1813	SK 6620 5460	SS	Blidworth	F.1.6	29.04.75	LT
Kirklington	1835	SK 6820 5670	SS	Blidworth	F.1.6	15.12.76	LT
Eakring	1753	SK 6792 5898	SS	Blidworth	F.1.6	15.10.75	LT
Kelham Hills	1756	SK 7586 5686	SS	Blidworth	F.1.6	15.10.75	LT
Kighill	1740	SK 5545 5316	SS	Blidworth	F.1.6	28.10.69	LT
Ramsdale Reservoir	1821	SK 5960 4830	SS	Blidworth	F.1.6	16.06.75	LT
Blidworth Lodge	1828	SK 5860 5330	SS	Blidworth	F.1.6	16.05.75	LT
Oxton Bogs GB	1839	SK 6140 5130	SS	Blidworth	F.1.6	09.07.79	LT
Oxton Bogs TW (26)	1849	SK 6140 5160	SS	Blidworth	F.1.6	20.03.81	LT
Oxton Bogs TW (28)	1842	SK 6160 5140	SS	Blidworth	F.1.6	25.06.80	LT
Oxton Bogs TW (32)	1843	SK 6170 5110	SS	Blidworth	F.1.6	12.01.81	LT
Oxton Bogs TW (33)	1844	SK 6150 5120	SS	Blidworth	F.1.6	25.06.80	LT
Fox Covert	1823	SK 5860 5050	SS	Blidworth	F.1.6	15.07.75	LT
Forest Farm	1781	SK 6240 5710	SS	Blidworth	F.1.6	09.12.75	LT
York House	1744	SK 5730 4040	SS	Nottingham	F.1.7	26.01.73	LT
Castlegate	1782	SK 5723 3968	SS	Nottingham	F.1.7	24.01.77	LT
John Players	1742	SK 5542 4079	SS	Nottingham	F.1.7	15.10.76	LT
Shipstones	1743	SK 5568 4208	SS	Nottingham	F.1.7	09.12.63	LT
Hazel Hill	1737	SK 5663 4637	SS	Nottingham	F.1.7	29.01.70	LT
Mapperley Reservoir	1848	SK 5869 4310	SS	Nottingham	F.1.7	13.10.82	LT
Spring Farm	1796	SK 7032 3800	SS	Nottingham	F.1.7	07.12.78	LT
Station Street	1856	SK 5768 3938	SS	Nottingham	F.1.7	18.07.88	LT
Island Street	1857	SK 5800 3955	SS	Nottingham	F.1.7	18.07.88	LT
City Hospital	1858	SK 5670 4415	SS	Nottingham	F.1.7	11.04.89	LT
Woodland Farm	1657	SK 7693 3228	SS	Nottingham	F.1.7	11.03.80	LT
Hall Gardens	1746	SK 5071 3723	SS	Beeston	F.1.8	07.03.72	LT
Lowes Nurseries	1785	SK 5172 3826	SS	Beeston	F.1.8	10.01.78	LT
Barton Transport	1802	SK 5246 3623	SS	Beeston	F.1.8	12.11.80	LT
East Leake	1655	SK 5584 2841	SS	Beeston	F.1.8	03.08.79	LT
Stainton Littlewood	1767	SK 5549 9430	ML	Maltby	E.1.2	16.01.73	LT
Gildingwells	1759	SK 5580 8500	ML	Maltby	E.1.2	14.12.73	LT
Hodhill	1766	SK 5207 6635	ML	Bolsover	E.1.3	08.02.72	LT
Whitwell Highwood	1763	SK 5150 7660	ML	Bolsover	E.1.3	15.01.73	LT
Marlpit Lane	1762	SK 4840 7090	ML	Bolsover	E.1.3	22.02.74	LT
Southward Lane	1760	SK 5248 8018	ML	Bolsover	E.1.3	08.01.73	LT
Penniment Farm	1764	SK 5081 6202	ML	Mansfield	E.1.4	23.01.73	LT
Kirkby-in-Ashfield	1771	SK 4900 5610	ML	Mansfield	E.1.4	12.06.73	LT
Stanton	1765	SK 4800 6030	ML	Mansfield	E.1.4	23.01.73	LT
End Cottage	1769	SK 5127 4184	ML	Hucknall	E.1.5	06.01.69	LT
Croxton Park	1650	SK 8162 2620	LL	Waltham	G.9.2	25.01.73	LT
Hareko	1652	SK 5941 0555	MM	Minor Aquifer	24-S	02.09.71	LT
Whitwick	1653	SK 4305 1586	SS	Diseworth	F.0.1	18.03.75	LT
Micklin Farm	1654	SK 4439 1957	SS	Diseworth	F.0.1	14.07.72	LT

AQUIFER: KEY TO ABBREVIATIONS

SD Superficial Deposits
SS Sherwood Sandstones
CM Coal Measures
N Namurian Millstone Grit
ML Magnesian Limestone [Lower]
MM Minor Aquifer e.g. Mercia Mudstones
LL Lincolnshire Limestone
D Dinantian Carboniferous Limestone

Table 26
Groundwater Observation Borehole Network - Severn Catchment

NAME OF BOREHOLE	REF NO.	GRID REF	AQUIFER	GROUNDWATER UNIT	UNIT CODE	START OF RECORD	AREA
Perry Farm	0315	SJ 3468 3036	SS	Whittington*	F.6.1	03.10.75	US
-	-		SS	Knockin*	F.6.2	-	US
-	-		SS	Alberbury*	F.6.3	-	US
The Knolls	0214	SJ 4227 1733	SS	Ensdon*	F.6.4	13.01.83	US
Broadoak	0050	SJ 4977 1752	SS	Merrington*	F.6.5	12.01.83	US
-	-		SS	Stanton*	F.6.6	-	US
Heathlanes	0169	SJ 6195 2105	SS	Radmoor*	F.6.7	16.07.71	US
Atcham	0012	SJ 5420 0920	SS	Longdon*	F.6.8	06.03.74	US
Woore	0147	SJ 7320 4240	SS	Market Drayton*	F.7.1	14.07.82	UT
Four Alls	0134	SJ 6792 3217	SS	Market Drayton	F.7.1	09.06.71	US
Heathcote	0168	SJ 6537 2834	SS	Wistanwick*	F.7.2	02.01.73	US
Cherrington	0075	SJ 6668 1974	SS	Sambrook*	F.7.3	16.07.71	US
Childs Ercall	2061	SJ 6651 2336	SS	Sambrook	F.7.3	13.01.83	US
Cheswell	0495	SJ 7270 1710	SS	Adeney	F.7.4	09.10.81	US
Egmond Marsh	0496	SJ 7250 0050	SS	Adeney	F.7.4	09.10.81	US
Coley Farm	0556	SJ 7813 1942	SS	Aqualate	F.7.5	01.01.91	US
Lizard Wood No 1	0229	SJ 7800 0935	SS	Cosford	F.7.6	27.01.78	US
Lizard Wood No 2	0230	SJ 7800 0935	SS	Cosford	F.7.6	27.01.78	US
Shifnal	0360	SJ 7544 0668	SS	Cosford	F.7.6	08.07.77	US
Shifnal	0457	SJ 7728 1330	SS	Cosford	F.7.6	26.06.81	US
Shifnal	0458	SJ 7740 1344	SS	Cosford	F.7.6	22.05.73	US
Wrottesley	8003	SJ 8260 0095	SS	Cosford	F.7.6	02.07.84	US
Astol	0010	SJ 7365 0008	SS	Worfield	F.7.7	17.08.77	US
Chesterton	0076	SO 7750 9730	SS	Worfield	F.7.7	15.08.73	US
Claverley (Well)	0081	SO 7740 9310	SS	Worfield	F.7.7	15.08.73	US
Cranmere Farm	0098	SO 7560 9750	SS	Worfield	F.7.7	23.08.76	US
Harrington BH	0158	SJ 7480 0160	SS	Worfield	F.7.7	26.02.76	US
Havenhills	0160	SJ 7357 0324	SS	Worfield	F.7.7	02.12.77	US
Lea Farm (Albrighton)	0218	SJ 8070 0325	SS	Worfield	F.7.7	03.06.77	US
Nor Hill	0277	SO 8110 9980	SS	Worfield	F.7.7	15.08.73	US
Nurton Hill Farm	0284	SO 8320 9970	SS	Worfield	F.7.7	15.08.73	US
Stanmore Cottage	0375	SO 7460 9230	SS	Worfield	F.7.7	21.04.75	US
Stanmore BH (Upper)	0508	SO 7460 9320	SS	Worfield	F.7.7	17.04.84	US
Stanmore BH (Lower)	0509	SO 7460 9320	SS	Worfield	F.7.7	27.04.84	US
Hatton Grange	0499	SJ 7608 0425	SS	Worfield	F.7.7	18.06.80	US
Hatton Grange (Shallow)	0500	SJ 7610 0425	SS	Worfield	F.7.7	18.02.82	US
Patshall	0517	SJ 8135 0095	SS	Worfield	F.7.7	01.07.87	US
Blackbrook	0518	SO 8345 9715	SS	Worfield	F.7.7	01.07.87	US
Blackbrook Maer	0036	SJ 7730 3880	SS	Wellings	F.7.8	21.09.73	UT
Clowes Wood	1065	SJ 7741 3880	SS	Wellings	F.7.8	01 01.91	UT
Check Hill	0074	SO 8610 8860	SS	Wombourne	F.8.1	10.07.78	US
Furnace Grange	0138	SO 8450 9650	SS	Wombourne	F.8.1	28.11.32	US
Greensforge Farm	0145	SO 8600 8800	SS	Wombourne	F.8.1	15.08.73	US
Little Moor(Pattingham)	0224	SO 8310 9800	SS	Wombourne	F.8.1	21.03.77	US
Sandy Acre (Seisdon)	0353	SO 8430 9510	SS	Wombourne	F.8.1	28.11.32	US
Shipley Common	0361	SO 8430 9540	SS	Wombourne	F.8.1	11.04.73	US
Seisdon Tip No 1	0460	SO 8414 9532	SS	Wombourne	F.8.1	07.06.82	US
Heath Barn	0164	SO 8560 8210	SS	Stourbridge	F.8.2	01.11.76	US
Kings Lodge	0209	SO 8440 8540	SS	Stourbridge	F.8.2	19.08.24	US
Kinver-Old Waterworks	0213	SO 8480 8330	SS	Stourbridge	F.8.2	28.06.76	US
Old Barn (A449T)	0287	SO 8570 8170	SS	Stourbridge	F.8.2	19.12.78	US
Prestwood Hospital	0325	SO 8680 8600	SS	Stourbridge	F.8.2	09.10.23	US
Roundhills WRW	0340	SO 8710 8390	SS	Stourbridge	F.8.2	05.02.79	US
Swinford Common	0389	SO 8980 8320	SS	Stourbridge	F.8.2	29.09.77	US
Turbine Cottage	0400	SO 8680 8190	SS	Stourbridge	F.8.2	15.05.78	US
Whittington	0427	SO 8580 8270	SS	Stourbridge	F.8.2	31.07.73	US
Norton Obs BH No 14A	0475	SO 8989 8223	SS	Stourbridge	F.8.2	27.03.81	US
Norton Obs BH No 14B	0476	SO 8991 8223	SS	Stourbridge	F.8.2	26.03.81	US
Norton Obs Bh No 5	0477	SO 8941 8182	SS	Stourbridge	F.8.2	20.07.81	US
Norton Obs BH No 4	0483	SO 8872 8189	SS	Stourbridge	F.8.2	29.10.81	US

AQUIFER: KEY TO ABBREVIATIONS

SS Sherwood Sandstones
PC Permo-Carboniferous
CM Coal Measures
DE Devonian
MM Minor Aquifer

* Indicates additional observation boreholes which are monitored as part of the Shropshire Groundwater Scheme

Table 26
Groundwater Observation Borehole Network - Severn Catchment

NAME OF BOREHOLE	REF NO.	GRID REF	AQUIFER	GROUNDWATER UNIT	UNIT CODE	START OF RECORD	AREA
Barnett Hill	0019	SO 8910 7730	SS	Kidderminster	F.8.3	02.06.76	US
Barrowhill	0022	SO 9090 7510	SS	Kidderminster	F.8.3	19.05.76	US
Beech Tree Lane	0025	SO 8640 8070	SS	Kidderminster	F.8.3	18.04.79	US
Blakeways	0039	SO 8630 7340	SS	Kidderminster	F.8.3	16.05.73	US
Broom House	0054	SO 9020 7830	SS	Kidderminster	F.8.3	16.11.73	US
Clent	0082	SO 9357 7746	SS	Kidderminster	F.8.3	03.06.80	US
Five Ways (01)	0130	SO 8720 8040	SS	Kidderminster	F.8.3	17.11.76	US
Hagley Treherns Farm	0151	SO 9070 8110	SS	Kidderminster	F.8.3	15.05.73	US
Hillfields Farm	0175	SO 8160 7960	SS	Kidderminster	F.8.3	25.04.73	US
Hillpool	0176	SO 8960 7590	SS	Kidderminster	F.8.3	02.04.66	US
Iverley House Farm	0199	SO 8710 8150	SS	Kidderminster	F.8.3	17.11.76	US
Kingsford Farm	0210	SO 8200 8170	SS	Kidderminster	F.8.3	12.08.74	US
Lodge Farm	0235	SO 8900 7360	SS	Kidderminster	F.8.3	31.10.73	US
Longmoor Farm	0237	SO 8840 7270	SS	Kidderminster	F.8.3	31.10.73	US
Norton Borehole OB1	0282	SO 8961 8155	SS	Kidderminster	F.8.3	23.04.74	US
Windmill Pool	0298	SO 8940 7890	SS	Kidderminster	F.8.3	29.01.74	US
Pavillion	0306	SO 8880 7860	SS	Kidderminster	F.8.3	12.01.76	US
Rednall Farm	0333	SO 9060 7810	SS	Kidderminster	F.8.3	16.07.62	US
Whitehouse Farm	0425	SO 8626 7997	SS	Kidderminster	F.8.3	25.04.73	US
Yieldingtree Farm	0454	SO 8990 7730	SS	Kidderminster	F.8.3	02.03.64	US
Yieldingtree Cottages	0453	SO 9000 7750	SS	Kidderminster	F.8.3	16.11.73	US
Norton Obs BH No 17A	0469	SO 9003 8098	SS	Kidderminster	F.8.3	14.01.81	US
Norton Obs BH No 17B	0470	SO 9004 8098	SS	Kidderminster	F.8.3	28.01.81	US
Norton Obs BH No 17C	0471	SO 9003 8098	SS	Kidderminster	F.8.3	14.01.81	US
Norton Obs BH No 13A	0472	SO 9041 8149	SS	Kidderminster	F.8.3	28.01.81	US
Norton Obs BH No 13B	0473	SO 9039 8149	SS	Kidderminster	F.8.3	11.02.81	US
Norton Obs BH No 13C	0474	SO 9038 8149	SS	Kidderminster	F.8.3	12.03.81	US
Norton Obs BH No 20	0478	SO 8995 8131	SS	Kidderminster	F.8.3	06.08.81	US
Norton Obs BH No 6	0479	SO 8917 8180	SS	Kidderminster	F.8.3	25.08.81	US
Norton Obs BH No 11A	0480	SO 8933 8157	SS	Kidderminster	F.8.3	13.07.81	US
Norton Obs BH No 11B	0481	SO 8933 8157	SS	Kidderminster	F.8.3	13.07.81	US
Norton Obs BH No 11C	0482	SO 8933 8157	SS	Kidderminster	F.8.3	13.07.81	US
Iverley Lane (Upper)	0493	SO 8840 8010	SS	Kidderminster	F.8.3	04.12.81	US
Norton D (Reservoir)	0489	SO 8979 8161	SS	Kidderminster	F.8.3	02.12.81	US
Iverley Lane (Upper)	0494	SO 8840 8010	SS	Kidderminster	F.8.3	04.12.81	US
Norton E (Rchrg Hole	0490	SO 8936 8173	SS	Kidderminster	F.8.3	14.12.81	US
Norton C (Layby)	0491	SO 8994 8168	SS	Kidderminster	F.8.3	02.12.81	US
Quales Carpets	0329	SO 8230 7270	SS	Stourport	F.8.4	08.03.74	US
The Woodlands	0441	SO 8450 7100	SS	Stourport	F.8.4	17.01.73	US
Wribbenhall	0526	SO 7960 7580	SS	Stourport	F.8.4	26.09.88	US
Astley	0008	SO 7900 6770	SS	Astley	F.8.5	07.02.73	US
Birkmyre Structons Heath	0034	SO 7740 6570	SS	Astley	F.8.5	07.02.73	US
The Courtlands	0095	SO 7940 6470	SS	Astley	F.8.5	01.10.74	US
Little Witley (Haven N)	0227	SO 7840 6350	SS	Astley	F.8.5	07.02.73	US
Rectory Lane Shrawley	0331	SO 7990 6560	SS	Astley	F.8.5	18.10.74	US
Sankyn Green BH	0350	SO 7940 6470	SS	Astley	F.8.5	05.02.75	US
Shrawley No 2	0364	SO 7990 6620	SS	Astley	F.8.5	04.09.74	US
St Marys Church	0372	SO 8050 6470	SS	Astley	F.8.5	10.10.74	US
Yells Farm (St Michaels)	0373	SO 7700 6680	SS	Astley	F.8.5	22.08.73	US
Upper Fudges (Shrawley)	0404	SO 8000 6550	SS	Astley	F.8.5	10.10.74	US
Bishops Wood Substation	0035	SO 8360 6830	SS	Ombersley	F.8.6	11.02.74	US
Chadey (Caves Farm)	0073	SO 8510 6130	SS	Ombersley	F.8.6	06.02.73	US
Hardebury	0159	SO 8460 6950	SS	Ombersley	F.8.6	09.08.78	US
Lower Acton Farm	0239	SO 8470 6750	SS	Ombersley	F.8.6	15.11.73	US
Northampton	0279	SO 8370 6530	SS	Ombersley	F.8.6	14.08.73	US
Ombersley Bh No 1	0291	SO 8370 6290	SS	Ombersley	F.8.6	13.03.73	US
Ombersley Well	0292	SO 8370 6260	SS	Ombersley	F.8.6	21.11.73	US
Pipstile Farm	0317	SO 8350 6460	SS	Ombersley	F.8.6	15.11.73	US
Awford Lane	0456	SO 8450 6570	SS	Ombersley	F.8.6	04.03.73	US
Cow Lane DT	0466	SO 8460 6600	SS	Ombersley	F.8.6	04.03.81	US
Ombersley BH No 2	0485	SO 8390 6360	SS	Ombersley	F.8.6	22.07.81	US

AQUIFER: KEY TO ABBREVIATIONS

SS Sherwood Sandstones
CM Coal Measures
PC Permo-Carboniferous
DE Devonian
MM Minor Aquifer

Table 26
Groundwater Observation Borehole Network - Severn Catchment

NAME OF BOREHOLE	REF NO.	GRID REF	AQUIFER	GROUNDWATER UNIT UNIT	CODE	START OF RECORD	AREA
Burcott Lane	0059	SO 9680 7160	SS	Bromsgrove	F.8.7	04.07.78	US
Fairfield No 1	0124	SO 9540 7560	SS	Bromsgrove	F.8.7	17.01.73	US
Fairfield No 2	0125	SO 9560 7560	SS	Bromsgrove	F.8.7	19.02.75	US
Sanders Park	0349	SO 9530 7080	SS	Bromsgrove	F.8.7	12.07.78	US
Stoke Prior	0379	SO 9840 6950	SS	Bromsgrove	F.8.7	19.02.75	US
Tickeridge Farm	0392	SO 9420 7070	SS	Bromsgrove	F.8.7	24.09.74	US
Anthonys Cross	0004	SO 7200 2350	SS	Oxenhall	F.9.1	29.01.73	LS
Beehive Cottage	0026	SO 7210 2510	SS	Oxenhall	F.9.1	29.01.73	LS
Botloes Farm	0043	SO 7200 2880	SS	Oxenhall	F.9.1	22.08.74	LS
Brand Green	0047	SO 7400 2820	SS	Oxenhall	F.9.1	12.03.73	LS
Compton House	0090	SO 7350 2870	SS	Oxenhall	F.9.1	16.08.76	LS
Hayes Farm	0162	SO 7260 2920	SS	Oxenhall	F.9.1	19.02.73	LS
Hilltop	0177	SO 7310 2630	SS	Oxenhall	F.9.1	07.05.73	LS
Keeper Cottage	0204	SO 7430 2930	SS	Oxenhall	F.9.1	29.04.74	LS
Lock Cottage	0232	SO 7130 2660	SS	Oxenhall	F.9.1	19.03.73	LS
New Barns	0266	SO 7310 2800	SS	Oxenhall	F.9.1	25.06.73	LS
Pella Farm	0307	SO 7030 2800	SS	Oxenhall	F.9.1	12.11.73	LS
Poolhill	0318	SO 7290 2930	SS	Oxenhall	F.9.1	29.01.73	LS
Redmarley Village Well	0334	SO 7520 3060	SS	Oxenhall	F.9.1	29.01.73	LS
Stores Cottage	0381	SO 7170 1970	SS	Oxenhall	F.9.1	30.04.73	LS
Summerville Cottage	0384	SO 7310 2930	SS	Oxenhall	F.9.1	15.02.74	LS
Waterdine	0411	SO 7070 2820	SS	Oxenhall	F.9.1	22.10.73	LS
Wyatts Cottage	0448	SO 7030 2530	SS	Oxenhall	F.9.1	08.02.74	LS
Donnington Hall	0108	SO 7160 3380	SS	Bromsberrow	F.9.2	29.10.73	LS
Easingthorpe Hall	0116	SO 7440 5720	SS	Mardley	F.9.5	04.06.80	US
The Laurels	0217	SO 7560 6000	SS	Mardley	F.9.5	04.06.80	US
Aylton	0015	SO 6620 3780	DE	Minor Aquifer	24-LS	11.03.80	LS
Stocks Farm	0376	SO 7217 5115	DE	Minor Aquifer	24-LS	22.05.80	US
Snead Green House	0370	SO 8623 6784	MM	Minor Aquifer	24-LS	16.11.78	US
Cannop Cross	0067	SO 6090 1160	CM	Forest of Dean	D.9.2	13.02.79	LS
Sallow Vallets	0348	SO 6040 0139	CM	Forest of Dean	D.9.2	08.06.79	LS
Tiddington	0393	SP 2250 5990	SS	Avon(Confined)	F.9.4	08.10.79	LS
Alcester Road	0524	SP 1940 5510	SS	Avon(Confined)	F.9.4	06.09.88	LS
Flowers	0525	SP 1990 5560	SS	Avon(Confined)	F.9.4	06.09.88	LS
New House Farm	0269	SP 3316 8567	PC	Coventry	D.9.3	09.06.71	LS
Courtaulds	0512	SP 3489 8260	PC	Coventry	D.9.3	21.06.84	LS
Jaguar (Radford)	0513	SP 3326 8083	PC	Coventry	D.9.3	21.06.84	LS
Coventry Dairy	0520	SP 3489 8016	PC	Coventry	D.9.3	01.09.87	LS
Rolls Royce (Quinton Rd)	0521	SP 3359 7829	PC	Coventry	D.9.3	01.09.87	LS
Stoney Road	0522	SP 3332 7813	PC	Coventry	D.9.3	01.10.88	LS
Peugeot (Little Stoke)	0523	SP 3510 7830	PC	Coventry	D.9.3	01.01.90	LS
Montgomery Platings	0519	SP 3409 7904	PC	Coventry	D.9.3	03.09.87	LS
Ram Hall	1219	SP 2470 7830	PC	Meriden	D.9.4	05.09.73	LS
Church Lane	0078	SP 2970 8508	PC	Meriden	D.9.4	28.04.72	LS
Broad Lane	0049	SP 3062 7870	PC	Kenilworth	D.9.5	28.04.72	LS
Ivy Farm	0202	SP 3083 7673	PC	Kenilworth	D.9.5	28.04.72	LS

AQUIFER: KEY TO ABBREVIATIONS

SS Sherwood Sandstones
PC Permo-Carboniferous
CM Coal Measures
DE Devonian
MM Minor Aquifer

NOTES :-

HYDROMETRY & DATA GROUP
Severn-Trent Region (July 1992)

REGIONAL OFFICE: Sapphire East, Solihull

Team Leader - Hydrometry & Data	Jim Waters BEM
Hydrologist - Hydrometry	Richard Iredale
Assistant Hydrologist - Hydrometry	Mick Jackson
Senior Hydrologist - Data	Dave Grimshaw
Hydrologist - Data	Andrew Pimperton
Assistant Hydrologist - Data	Alison Hamer
Assistant Hydrologist - Data	Bob Marshall

UPPER SEVERN OFFICE: Hafren House, Shrewsbury

Hydrometric Officer	James Payne
Assistant Hydrometric Officers	Roger Dutton
	Dave Lindsay
	Ken Parker
	Rob Turner
	Kate Bason
Foley House, Kidderminster	Mike Averill

LOWER SEVERN OFFICE: Riversmeet House, Tewkesbury

Hydrometric Officer	Phil Davies
Assistant Hydrometric Officers	Garth Lowe
	Bob Palmer
	Will Spendlove
Brooke House, Warwick	Jerry Clewer

LOWER TRENT OFFICE: Trentside, Nottingham

Hydrometric & Quality. Monitoring Instr. Officer	Dr John Adams
Assistant Hydrometric Officers	Jim Carpenter
	Fred Dixon
	Dave Goodall
	Clive Hallam
	Keith Hallam
Hydrometric Technician	Trevor Wardle

UPPER TRENT OFFICE: Sentinel House, Lichfield

Hydrometric Officer	Tony Burrows
Assistant Hydrometric Officers	Bill Huskins
	Don Simmonds
	Mike Vaughan
Hydrometric Technician	Steve Gallagher

NRA

Severn-Trent Region