

NATIONAL RIVERS AUTHORITY
YORKSHIRE REGION

RIVER FLOW & RAINFALL STATISTICS
UPDATED TO 31ST DECEMBER 1992

National Rivers Authority
Northumbria & Yorkshire Region
Olympia House
Gelder Lane
Gelder Road
Leeds
LS12 6DD

August 1993

National Rivers Authority
Information Centre
Lead Office
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NATIONAL RIVERS AUTHORITY
YORKSHIRE REGION

RIVER FLOW AND RAINFALL STATISTICS UPDATED TO 31ST DECEMBER 1992

This publication combines the 1992 annual reports on River Flow Statistics and on Rainfall. It is in two sections:-

- (i) River Flow Statistics updated to 31st December 1992.
- (ii) Annual Rainfall Report 1992.

IMPORTANT NOTICE

The published data are the best available in August 1993. Please consult the Resource Planning and Hydrometry Section about the accuracy of the data, and the possibility of revision, before using these records for detailed investigations. The Section would also be pleased to be notified of any errors which may be discovered.

Telephone: Leeds 440191

NRA Northumbria & Yorkshire Region
August 1993

RIVER FLOW STATISTICS
UPDATED TO 31ST DECEMBER 1992

Introduction

This publication contains summary data for 1992 and analyses of long period river flow records.

The data should be used with some caution. All the published river flows are "net" or "as measured". No adjustments have been made in respect of abstractions from, or discharges to, the river upstream of the flow measuring station, or for changes in storage of reservoirs etc. Records allowing for such adjustments are usually available from the appropriate Division of Yorkshire Water plc or from NRA Northumbria and Yorkshire Region Resource Planning and Hydrometry Section.

Records have been included for some stations which were designed primarily to measure low flows. At higher flows, the measuring weir is completely drowned and, if the normal level-to-flow conversion is used, flows will be significantly over-estimated. Downstream records are available from some sites and these can be analysed to identify periods of drowning.

Continuing attempts are made to improve the accuracy of data and, at some sites, level records may be reworked in the future using a revised stage-discharge curve. Where this is likely, it is indicated on the long period summary page for the station. Any other comments about the data are also made on the summary page.

Short records should be treated with particular caution. Where the long period records are based on only a few years' data there will be large changes in the summary statistics as each year's data are added.

Long period analyses of stations now closed have been included.

The following stations were still being commissioned and performance-assessed at the end of 1992 and records are not included in this year's volume.

Calder at Caldene Bridge
Cod Beck at Dalton
Crimple at Black Stones Farm
Derwent at Low Marishes
Driffield Canal at Snakeholm Lock
Foulness at Holme House
West Beck at Snakeholm Lock
Wharfe at Tadcaster

Further Information

The records published here are a summary of some of the data held by the Resource Planning and Hydrometry Section. Further information is available on river flows, rainfall and climate.

River flow records are available as mean daily flows, or 15 minute levels or flows. The data can be produced as hard copy listings of hydrographs, or on computer files.

Current meter measurements of flow have been made at numerous sites additional to the permanent river gauging network, usually at times of fairly low flow. Methods for estimating flows at ungauged catchments are also being developed and tested.

Daily rainfall figures are available for the majority of rainfall stations. There is also a limited amount of data from continuously recording gauges. More detailed information is available from the climate stations for which summaries are published.

DEFINITIONS OF TERMS USED IN RIVER FLOW STATISTICS

Mean Daily Flow is calculated by averaging the instantaneous flows occurring through the "hydrological day" (9.00am to 9.00am GMT) obtained from the record of water levels at 15 minute intervals.

Mean Flow is the arithmetic average of all the mean daily flows occurring during a period of record.

Median Flow is the central value of the whole range of mean daily flows measured in a period of record (i.e. 50% of the flow will exceed it and 50% be less than it).

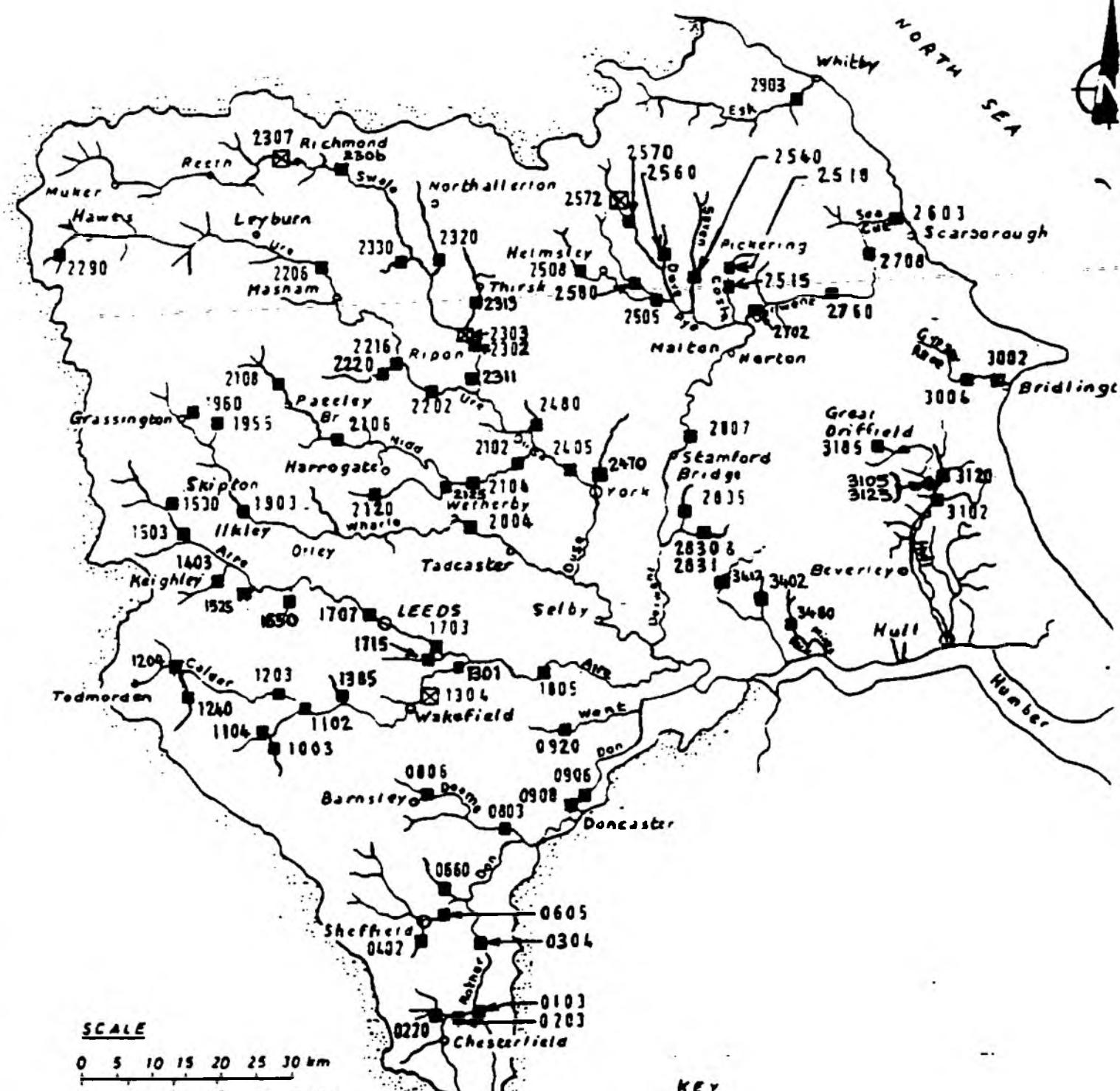
Modal Flow is the estimated most frequently occurring mean daily flow during a period of record.

Seven Day Minimum Flow in a year is the average daily value of the lowest total flow over any seven consecutive days in the year.

Dry Weather Flow, the definition adopted within the Yorkshire Region is that the Dry Weather Flow (D.W.F.) of a river is the average of the annual "Seven Day Minimum Flows" for all the years in the period of record of flows.

Cumecs is an abbreviation of "cubic metres per second", which is the unit of flow normally used by the Resource Planning and Hydrometry Section.

LOCATION OF RIVER FLOW GAUGING STATIONS



EXISTING STATION ■ 2290
DISCONTINUED STATION ✕ 2307

SCHEDULE OF RIVER FLOW MEASURING STATIONS

RIVER	LOCATION	NRA No.	MAP REF.	AREA	TYPE	START OF LEVELS	START OF FLOWS	STATION CLOSED
AIRE	KILDWICK	1503	SE 013 457	282.0	VELAR	02-Jun-67	01-Jan-70	
AIRE	ARMLEY	1707	SE 281 340	692.0	VABCW	12-Feb-60	01-Jan-72	
AIRE	FLEET WEIR	1703	SE 381 285		CRUMP	06-Sep-85	06-Sep-85	
AIRE	BEAL	1805	SE 534 255	1930.0	VABCW	23-Oct-30	01-Oct-76	
BEDALE BECK	LEEMING	2330	SE 306 902	160.3	FLATV	20-Apr-83	21-Apr-83	
BIELBY BECK	THORNTON LOCK	2830	SE 760 444	103.1	FLATV	13-Apr-83	14-Apr-83	
BLACKBURN BROOK	ASHLows WORKS	0660	SE 392 913	42.8	FLATV	08-Jan-81	09-Jan-81	
BLACKFOSS BECK	SANDHILLS BRIDGE	2835	SE 725 475	46.0	FLATV	19-Jul-74	19-Jul-74	
BRADFORD BECK	SHIPLEY	1650	SE 151 375	58.0	FLATV	19-Sep-83	20-Sep-83	
BROMPTON BECK	SNAINTON INGS FARM	2760	SE 936 794	12.9	CRUMP	13-Feb-81	14-Feb-81	
CALDER	CALDENE BRIDGE	1204	SE 012 260		MPULS	05-Sep-89	05-Sep-89	
CALDER	ELLAND	1203	SE 124 219	342.0	CRUVA	13-Aug-53	01-Jan-72	
CALDER	NEWLAND	1304	SE 365 220	899.0	VELAR	25-Apr-57	01-Jan-72	31-Dec-75
CALDER	METHLEY	1301	SE 408 257		MPULS	16-May-86	16-May-86	
COD BECK	DALTON	2313	SE 422 766		ELMAG	01-Mar-89	01-Mar-89	
COLNE	LONGROYD BRIDGE	1104	SE 136 161	72.3	FLATV	26-Oct-78	01-Nov-78	
COLNE	COLNE BRIDGE	1102	SE 174 199	245.0	CRUVA	13-Dec-63	01-Jan-65	
COSTA BECK	GATEHOUSES	2518	SE 774 836	7.6	CRUMP	12-Jun-69	01-Jan-71	
CRIMPLE	BURN BRIDGE	2120	SE 284 519	8.1	FLATV	21-Jan-72	21-Jan-72	
CRIMPLE	BLACK STONES FARM	2125	SE 402 530		FLATV	03-Jan-91		
CUNDALL BECK	BAT BRIDGE	2311	SE 419 724		FLATV	19-Nov-86	01-Jan-87	
DEARNE	BARNESLEY	0806	SE 350 073	119.0	COBCW	21-Jan-60	01-Mar-60	
DEARNE	ADWICK	0803	SE 477 020	311.0	CRUVA	30-Oct-63	01-Jan-76	
DERWENT	WEST AYTON	2708	SE 990 853	127.0	COTPW	05-Nov-64	01-Jan-67	
DERWENT	LOW MARISHES	2702	SE 833 774		ELMAG	24-Aug-89	24-Aug-89	
DERWENT	BUTTERCRAMBE	2807	SE 731 587	1586.0	CRUMP	03-Sep-73	04-Sep-73	
DIBB	GRIMWITH	1955	SE 058 639	25.5	FLATV	14-Oct-80	15-Oct-80	
DOE LEA	STAVELEY	0103	SK 443 746	67.9	RECFL	23-Jul-70	23-Jul-70	
DON	HADFIELDS	0605	SK 390 910	373.0	VABCW	02-Nov-56	01-Oct-65	
DON	DONCASTER	0908	SE 570 040	1260.0	VELAR	13-Apr-59	01-Jul-59	
DOVE	KIRKBY MILLS	2560	SE 705 855	59.2	FLATV	17-Jan-72	18-Jan-72	
DRIFFIELD CANAL	SNAKEHOLM LOCK	3123	TA 066 556		ELMAG	07-Oct-86	07-Oct-88	
EASTBURN BECK	CROSSHILLS	1525	SE 021 452		FLATV	25-Feb-88	25-Feb-88	
ELLER BECK	SKIPTON	1530	SD 984 502	35.3	COCRU	15-Oct-80	18-Jun-81	
ELMSWELL BECK	LITTLE DRIFFIELD	3185	TA 009 576	136.0	THPLW	18-Mar-80	20-Mar-80	
ESK	SLEIGHTS	2903	NZ 865 081	308.0	VABCW	01-Jan-70	01-Jan-83	
ESK	BRIGGSWATH	2902	NZ 873 082		MPULS	09-Oct-92		
FOSS	HUNTINGTON	2470	SE 612 543		ELMAG	15-Apr-87	15-Apr-87	
FOSTON BECK	FOSTON MILL	3120	TA 093 548	57.2	THPLW	01-Apr-59	01-Mar-76	
FOULNESS	HOLME HOUSE FARM	3412	SE 780 373		FLATV	07-Dec-90		
GYPSY RACE	BOYNTON	3004	TA 137 677	240.0	FLATV	28-Jan-81	30-Jan-81	
GYPSY RACE	BRIDLINGTON	3002	TA 165 675	254.0	CRUMP	30-Dec-70	01-Jan-71	31-Dec-85
HEBDEN BECK	HEBDEN	1960	SE 025 643	6.8	CRUVN	20-Aug-65	01-Mar-66	
HODGE BECK	BRANSDALE	2572	SE 627 944	18.9	COTPW	09-Apr-36	01-Jan-57	27-Feb-79
HODGE BECK	CHERRY FARM	2570	SE 652 902	37.1	FLATV	01-Nov-73	01-Jan-77	

ABBREVIATIONS USED IN TYPE

BCW BROAD CRESTED WEIR

CO COMPOUND WEIR

CRE CRENULATED WEIR

CRUMP / CRU CRUMP WEIR

FLATV / FLV FLAT VEE WEIR

RECFL RECTANGULAR FLUME

THPLW / TPW THIN PLATE WEIR

TRAFL TRAPEZOIDAL FLUME

VELAR / VA VELOCITY AREA

VN VEE NOTCH WEIR

20FLV FLAT VEE WEIR WITH

1 IN 20 CROSS SLOPES

SCHEDULE OF RIVER FLOW MEASURING STATIONS

RIVER	LOCATION	NRA No.	MAP REF.	AREA	TYPE	START OF LEVELS	START OF FLOWS	STATION CLOSED
HOLME	QUEENS MILL	1003	SE 142 157	97.4	FLATV	15-Nov-79	17-Nov-79	
HULL	HEMPHOLME	3102	TA 080 498	378.0	THPLW	31-Jul-61	01-Oct-62	
KYLE	NEWTON-ON-OUSE	2480	SE 509 602	167.6	FLATV	25-Oct-78	01-May-79	
LAVER	RIPON	2220	SE 301 710	87.5	CRUMP	11-Oct-77	12-Oct-77	
MARKET WEIGHTON CANAL	WHOLSEA GRANGE	3402	SE 845 344		FLATV	01-Jan-89	01-Jan-89	
MIRE BECK	NORTH CAVE	3480	SE 890 316		FLATV	17-Dec-85	01-Jan-86	
NIDD	GOUTHWAITE	2108	SE 141 683	114.0	THPLW	01-Oct-45	01-Jan-46	
NIDD	BIRSTWITH	2106	SE 230 603	217.6	VELAR	13-Mar-75	13-Mar-75	
NIDD	HUNSINGORE	2104	SE 428 530	484.0	VABCW	07-May-34	01-Jan-42	
NIDD	SKIP BRIDGE	2102	SE 482 561	516.0	FLATV	01-May-79	01-May-79	
OULTON BECK	FARRER LANE	1715	SE 365 281		FLATV	19-Feb-85	01-Nov-86	
OUSE	SKELTON	2405	SE 568 554	3315.0	VELAR	19-Sep-56	26-Sep-69	
PICKERING BECK	INGS BRIDGE	2515	SE 791 819	68.6	CRUMP	28-Sep-74	14-Jul-77	
POCKLINGTON CANAL FEEDER	THORNTON LOCK	2831	SE 760 444		CRUMP	13-Apr-83	14-Apr-83	
RICCAL	CROOK HOUSE FARM	2580	SE 661 810	57.6	FLATV	13-Nov-74	13-Jul-77	
ROTHER	WHITTINGTON	0203	SK 394 744	165.0	FLVVA	28-Jul-60	01-Oct-63	
ROTHER	WOODHOUSE MILL	0304	SK 432 857	352.0	VELAR	20-May-61	01-Oct-61	
RYBURN	RIPPONDEN	1240	SE 035 189	33.0	20FLV	31-Mar-81	01-Apr-81	
RYE	BROADWAY FOOT	2508	SE 560 883	131.7	CRUMP	23-Aug-74	24-Aug-74	
RYE	NESS	2505	SE 694 792	238.7	FLATV	07-Aug-74	07-Aug-74	
S.YORKS NAVIGATION	LONG SANDALL LOCK	0906	SE 602 067		CREVA	11-Aug-83	11-Aug-83	
SEA CUT	SCARBOROUGH	2603	TA 028 908	33.2	COBCW	11-Sep-65	01-Jan-66	
SEVEN	NORMANBY	2540	SE 737 821	121.6	CRUMP	01-Jul-74	14-Jul-77	
SHEAF	HIGHFIELD	0402	SE 357 863	49.1	FLATV	08-Jan-81	09-Jan-81	
SKELL	ALMA WEIR	2216	SE 316 709		20FLV	17-Jul-84	18-Jul-84	
SNAIZEHOLME BECK	LOW HOUSES	2290	SD 833 883	10.2	FLATV	11-May-66	01-Jun-66	
SPEN BECK	NORTHTORPE	1385	SE 225 210	46.3	CRUMP	21-Jun-82	22-Jun-82	
SWALE	RICHMOND	2307	NZ 146 006	381.0	VELAR	24-May-60	01-Jan-66	31-Dec-80
SWALE	CATTERICK BRIDGE	2306	SE 226 993		VELAR	17-Dec-92		
SWALE	LECKBY	2303	SE 415 748	1350.0	VELAR	20-Oct-55	01-Oct-68	31-Dec-84
SWALE	CRAKEHILL	2302	SE 425 733	1363.0	CRUVA	21-May-80	30-May-80	
URE	KILGRAM	2206	SE 190 860	510.0	VELAR	05-Jul-67	05-Jul-67	
URE	WESTWICK	2202	SE 356 671	914.0	VABCW	04-Oct-55	01-Jan-59	
WENT	WALDEN STUBBS	0920	SE 551 163	83.7	FLATV	17-Oct-79	19-Oct-79	
WEST BECK	SNAKEHOLME LOCK	3105	TA 066 555		ELMAG	07-Oct-88	07-Oct-88	
WHARFE	ADDINGHAM	1903	SE 092 494	427.0	CRUVA	01-Jan-74	01-Jan-74	
WHARFE	ILKLEY	1902	SE 112 481	443.0	VELAR	06-Apr-60	01-Oct-60	30-Sep-75
WHARFE	FLINT MILL	2004	SE 422 473	759.0	VABCW	09-Jun-36	01-Oct-65	
WHARFE	TADCASTER	2002	SE 477 441		MPULS	17-Aug-90		
WHITTING	SHEEPBRIDGE	0220	SK 376 747	50.2	CRUMP	04-Jun-76	04-Jun-76	
WISKE	KIRBY WISKE	2320	SE 375 844	215.5	FLATV	25-Mar-80	26-Mar-80	
WORTH	KEIGHLEY	1403	SE 063 408	71.7	FLATV	16-Dec-80	17-Dec-80	

ABBREVIATIONS USED IN TYPE

BCW BROAD CRESTED WEIR

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RECFL RECTANGULAR FLUME

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VN VEE NOTCH WEIR

20FLV FLAT VEE WEIR WITH

1 IN 20 CROSS SLOPES

NATIONAL RIVERS AUTHORITY : STATION:- 8911503 RIVER AIRE KILDWICK

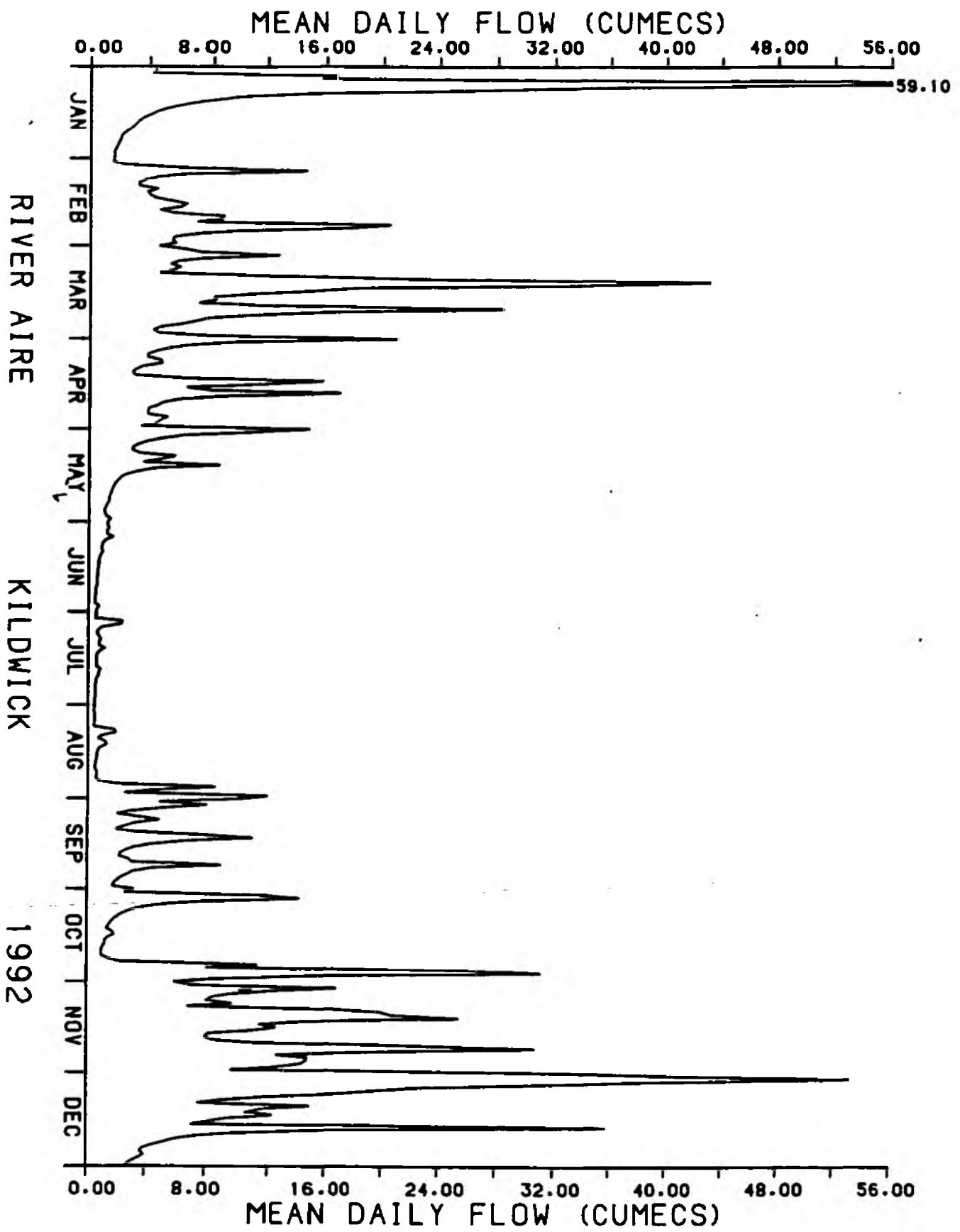
ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMECS) CALENDAR YEAR:- 1992

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	31/31	29/29	31/31	30/30	31/31	30/30	31/31	31/31	30/30	31/31	30/30	31/31
CUMEC DAYS	312.9	192.5	377.0	191.8	95.71	23.32	23.06	58.41	119.6	179.7	432.1	430.6
MINIMUM	1.608	1.566	4.255	2.913	1.039	0.420	0.432	0.414	1.748	0.987	6.811	2.653
MAXIMUM	59.10	20.46	43.20	17.02	10.76	1.683	2.370	12.05	10.86	31.12	33.07	53.26
MEAN	10.09	6.636	12.16	6.393	3.087	0.777	0.744	1.884	3.987	5.796	14.40	13.89
MEDIAN	4.080	5.607	8.220	4.858	2.195	0.669	0.573	0.644	3.206	2.304	12.70	9.366

ANNUAL FLOW STATISTICS

TOTAL NUMBER OF DAYS OF RECORD:- 366/366

TOTAL FLOW:-	2437. CUMEC DAYS	MINIMUM MEAN DAILY FLOW:-	0.414	CUMECs
MEAN FLOW:-	6.657 CUMECs	MAXIMUM MEAN DAILY FLOW:-	59.10	CUMECs
MEDIAN FLOW:-	3.896 CUMECs	MAXIMUM INSTANTANEOUS FLOW:-	67.62	CUMECs b/1
		SEVEN DAY MINIMUM FLOW:-	0.448	CUMECs 1-7/8
PERCENTAGE OF TIME:-	10	20	30	40
FLOW NOT EXCEEDED:-	0.571	0.965	1.683	2.656
	50	60	70	80
	3.856	4.976	7.073	9.731
	90			15.50



NATIONAL RIVERS AUTHORITY : STATION:- 8911503 RIVER AIRE

KILDWICK

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 23 OUT OF 23 PERIOD:- 1970 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:- 6.236 CUMECMS

MEDIAN FLOW:- 3.109 CUMECMS

MODAL FLOW:- 0.635 CUMECMS

MINIMUM MEAN DAILY FLOW:- 0.180 CUMECMS ON 23/ 8/1976

MAXIMUM MEAN DAILY FLOW:- 79.90 CUMECMS ON 27/10/1980

MAXIMUM INSTANTANEOUS FLOW:- 94.50 CUMECMS ON 27/10/1980 AT 01:45

DRY WEATHER FLOW:- 0.440 CUMECMS

MODAL FLOW CALCULATED WITH A 9.1% CLASS INTERVAL

Current meter gaugings indicate that flows below 1 cumec are being underestimated.

A new calibration is being prepared and low flow records will be reprocessed.

NATIONAL RIVERS AUTHORITY : STATION:- 89115D3 RIVER AIRE

KILDWICK

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 23 OUT OF 23 PERIOD:- 1970 TO 1992 SEASON:- JAN TO DEC

'FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION:- 8911707 RIVER AIRE

ARMLEY

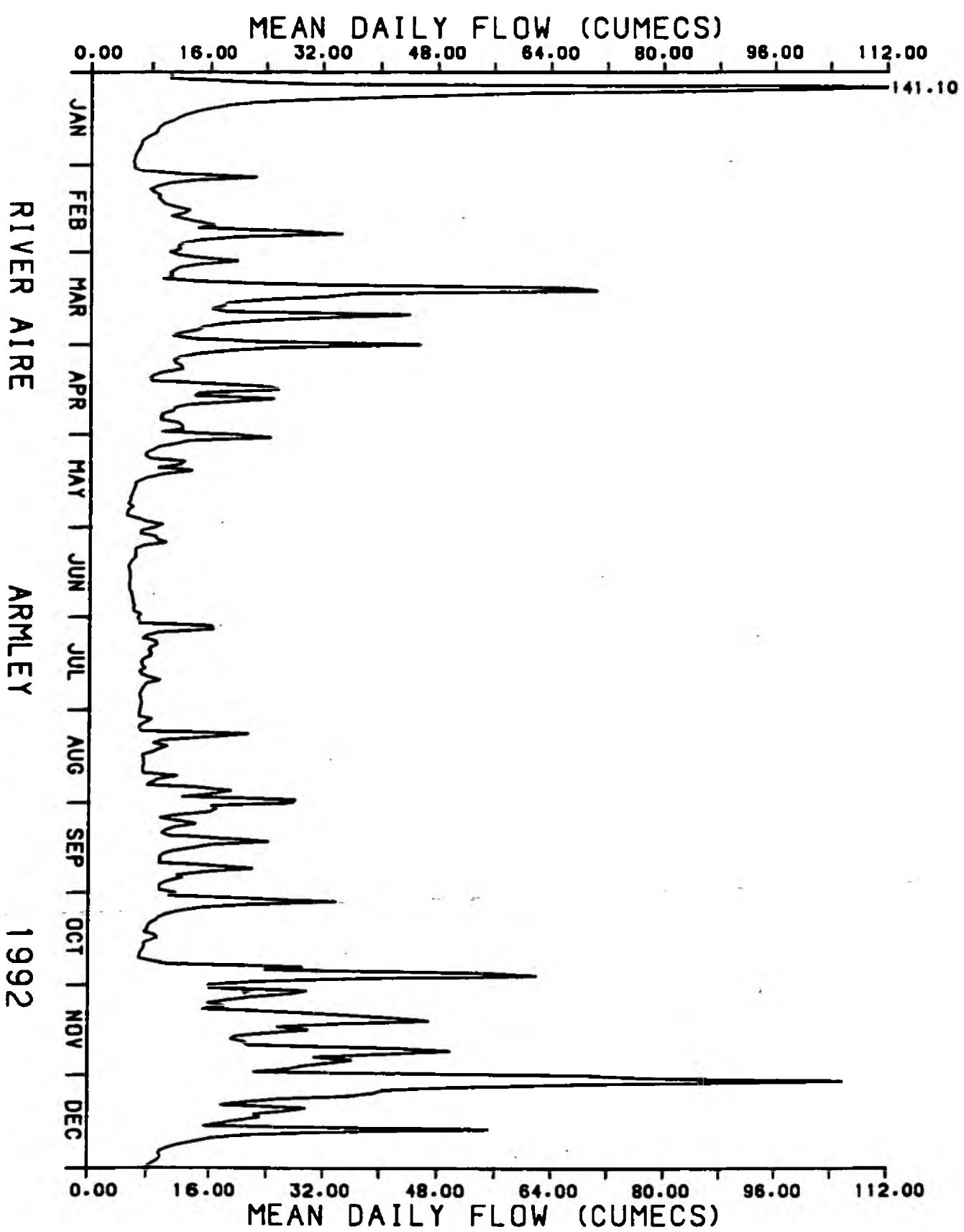
ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMECS) CALENDAR YEAR:- 1992

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	31/31	29/29	31/31	30/30	31/31	30/30	31/31	31/31	30/30	31/31	30/30	31/31
CUMEC DAYS	664.5	380.6	712.8	416.3	262.7	190.2	254.4	342.4	392.4	505.6	884.9	862.9
MINIMUM	5.812	5.894 ¹	9.471	8.114	5.115	5.300	6.785	6.754	9.517	6.880	15.09	7.866
MAXIMUM	141.1	34.69	70.48	25.79	24.67	10.21	16.68	28.11	24.45	61.93	68.83	105.9
MEAN	21.44	13.13	22.99	13.88	8.474	6.340	8.207	11.05	13.08	16.31	29.50	27.84
MEDIAN	10.37	11.85	17.55	12.09	7.599	5.976	7.282	8.499	11.73	9.613	27.22	20.90

ANNUAL FLOW STATISTICS

TOTAL NUMBER OF DAYS OF RECORD:- 366/366

TOTAL FLOW:-	5870. CUMEC DAYS	MINIMUM MEAN DAILY FLOW:-	5.115 CUMECs
MEAN FLOW:-	16.04 CUMECs	MAXIMUM MEAN DAILY FLOW:-	141.1 CUMECs
MEDIAN FLOW:-	10.81 CUMECs	MAXIMUM INSTANTANEOUS FLOW:-	181.3 CUMECs 5/1
		SEVEN DAY MINIMUM FLOW:-	5.399 CUMECs 21-27/5
PERCENTAGE OF TIME:-	10 20 30 40 50 60 70 80 90		
FLOW NOT EXCEEDED:-	6.201 7.192 8.301 9.510 10.80 12.36 16.06 21.40 30.45		



NATIONAL RIVERS AUTHORITY : STATION:- 8911707 RIVER AIRE

ARMLEY

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 21 OUT OF 21 PERIOD:- 1972 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:- 15.32 CUMECS

MEDIAN FLOW:- 9.714 CUMECS

MODAL FLOW:- 5.566 CUMECS

MINIMUM MEAN DAILY FLOW:- 1.529 CUMECS ON 5/ 9/1976

MAXIMUM MEAN DAILY FLOW:- 171.9 CUMECS ON 28/12/1978

MAXIMUM INSTANTANEOUS FLOW:- 181.3 CUMECS ON 05/ 1/1992 AT 20:45

DRY WEATHER FLOW:- 3.756 CUMECS

MODAL FLOW CALCULATED WITH A 2.9% CLASS INTERVAL

From 1986 weed growth has affected the rating considerably.

A new rating is being prepared which will significantly decrease summer flows.

Flows will be reprocessed from 1986.

NATIONAL RIVERS AUTHORITY : STATION:- 8911707 RIVER AIRE

ARMLEY

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 21 OUT OF 21 PERIOD:- 1972 TO 1992 SEASON:- JAN TO DEC

FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION:- 8911703 RIVER AIRE FLEET WEIR

FLEET WEIR

ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMECS) CALENDAR YEAR:- 1992

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	31/31	29/29	31/31	30/30	31/31	30/30	31/31	31/31	30/30	31/31	30/30	31/31
CUMEC DAYS	760.4	434.5	779.9	482.6	316.6	192.4	203.8	264.4	338.0	497.8	929.2	971.1
MINIMUM	7.420	7.833 ¹	11.02	10.20	6.032	4.930	4.280	4.387	7.221	6.052	15.50	10.27
MAXIMUM	145.8	38.51	74.85	30.47	27.59	12.22	17.05	23.36	21.29	65.32	74.62	114.2
MEAN	24.53	14.98	25.16	16.09	10.21	6.412	6.575	8.528	11.27	16.06	30.97	31.33
MEDIAN	12.16	13.54	18.87	14.09	9.478	5.358	5.596	6.111	9.902	8.588	28.01	23.48

ANNUAL FLOW STATISTICS

TOTAL NUMBER OF DAYS OF RECORD:- 366/366

TOTAL FLOW:- 6171. CUMEC DAYS MINIMUM MEAN DAILY FLOW:- 4.280 CUMECDS

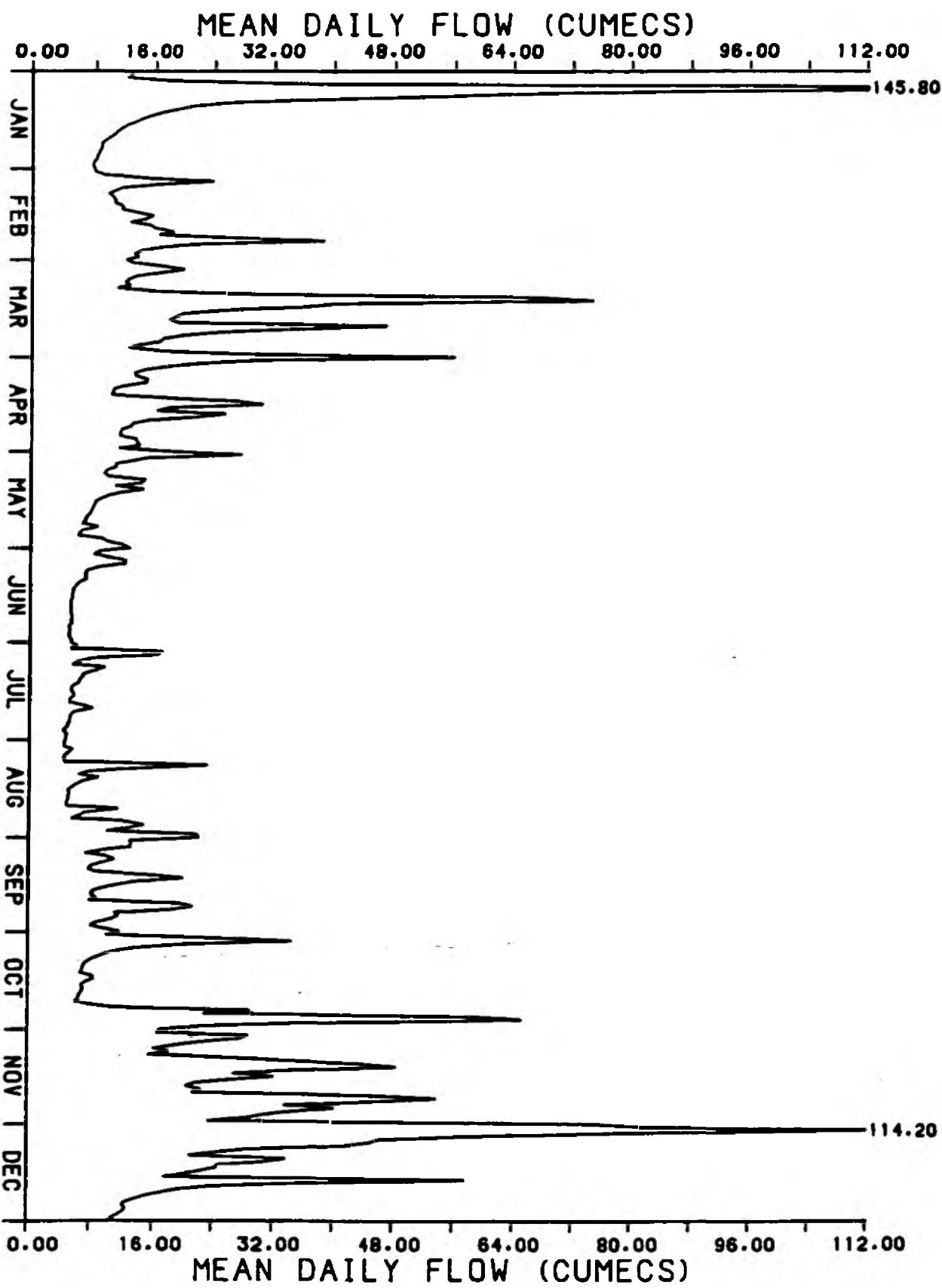
MEAN FLOW:- 16.86 CUMECS MAXIMUM MEAN DAILY FLOW:- 145.8 CUMECS

MAXIMUM INSTANTANEOUS FLOW:- 190.7 CUMECS

MAXIMUM INSTANTANEOUS FLOW:- 190.7 CUMECs 51
SEVEN DAY MINIMUM FLOW:- 4.587 CUMECs 277-28

PERCENTAGE OF TIME:-	10	20	30	40	50	60	70	80	90
FLOW NOT EXCEEDED:-	5.288	6.812	8.076	9.936	11.93	13.75	16.92	22.19	33.82

RIVER AIRE
FLEET WEIR
1992



NATIONAL RIVERS AUTHORITY : STATION:- 8911703 RIVER AIRE

FLEET WEIR

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 7 OUT OF 7 PERIOD:- 1986 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:- 17.17 CUMECMS

MEDIAN FLOW:- 10.96 CUMECMS

MODAL FLOW:- 5.177 CUMECMS

MINIMUM MEAN DAILY FLOW:- 3.787 CUMECMS ON 9/10/1989

MAXIMUM MEAN DAILY FLOW:- 145.8 CUMECMS ON 5/ 1/1992

MAXIMUM INSTANTANEOUS FLOW:- 196.1 CUMECMS ON 15/ 4/1986 AT 20:15

DRY WEATHER FLOW:- 4.614 CUMECMS

MODAL FLOW CALCULATED WITH A 2.6% CLASS INTERVAL

NATIONAL RIVERS AUTHORITY : STATION:- 8911703 RIVER AIRE

FLEET WEIR

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 7 OUT OF 7 PERIOD:- 1986 TO 1992 SEASON:- JAN TO DEC

FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION:- 8911805 RIVER AIRE BEAL

ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMECS) CALENDAR YEAR:- 1992

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	31/31	29/29	31/31	30/30	31/31	30/30	31/31	31/31	30/30	31/31	30/30	31/31
CUMEC DAYS	1353.	672.8	1295.	838.1	582.6	394.7	369.1	482.8	630.9	1009.	1859.	2033.
MINIMUM	13.56	14.35	17.49	16.45	10.38	8.325	5.398	6.330	13.25	10.95	31.79	19.45
MAXIMUM	229.5	56.17	129.2	59.50	50.70	33.11	39.65	40.62	42.66	162.9	122.9	225.8
MEAN	43.65	23.20	41.79	27.94	18.79	13.16	11.91	15.57	21.03	32.54	61.96	65.58
MEDIAN	22.75	21.64	31.31	24.52	17.01	9.958	10.35	11.53	18.36	16.58	55.35	48.28

ANNUAL FLOW STATISTICS

TOTAL NUMBER OF DAYS OF RECORD:- 366/366

TOTAL FLOW:- 11520. CUMEC DAYS MINIMUM MEAN DAILY FLOW:- 5.398 CUMECs

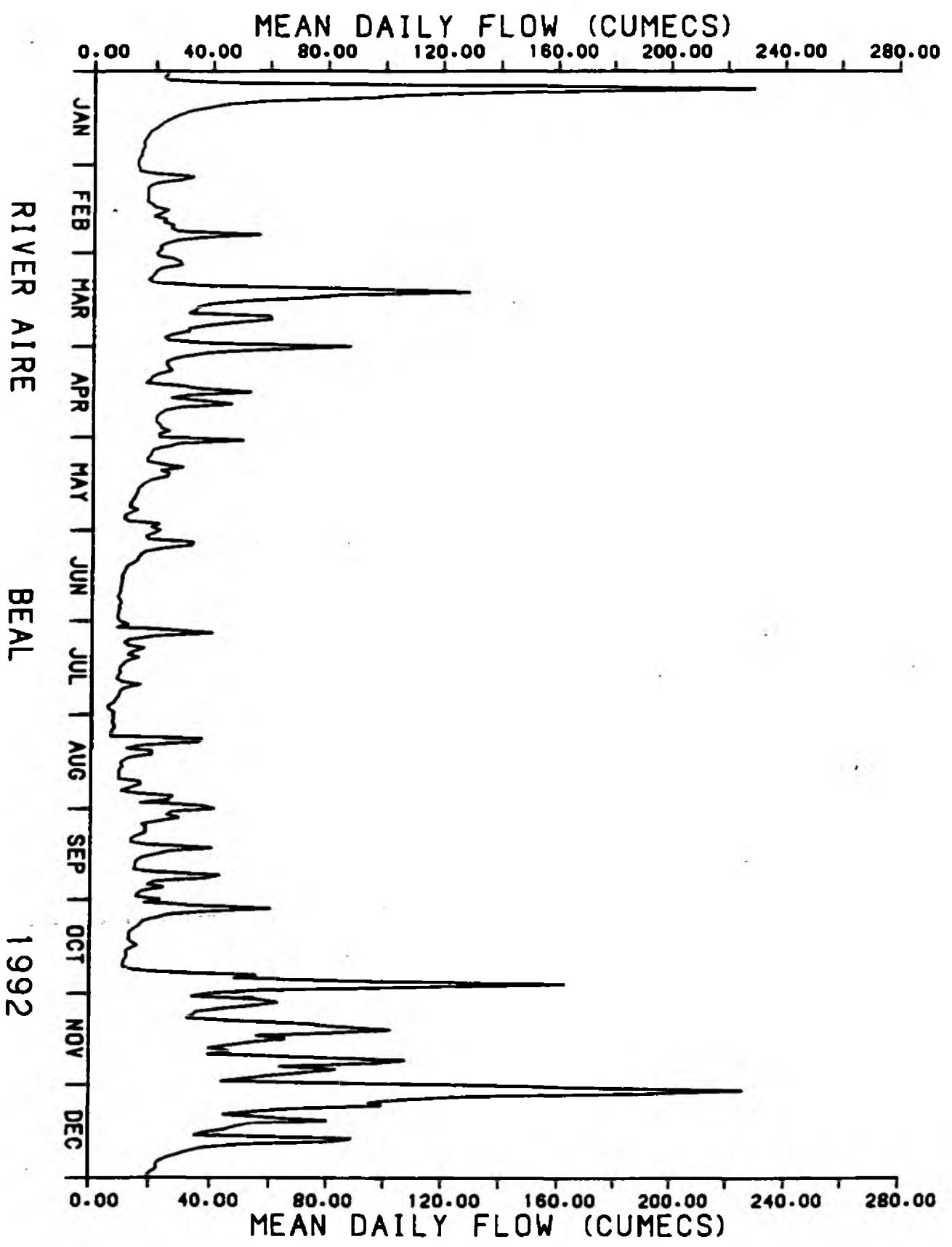
MEAN FLOW:- 31.48 CUMECs MAXIMUM MEAN DAILY FLOW:- 229.5 CUMECs

MEDIAN FLOW:- 21.25 CUMECs MAXIMUM INSTANTANEOUS FLOW:- 250.8 CUMECs 5/1

SEVEN DAY MINIMUM FLOW:- 6.700 CUMECs 28/7-3/8

PERCENTAGE OF TIME:- 10 20 30 40 50 60 70 80 90

FLOW NOT EXCEEDED:- 9.607 12.62 15.44 17.99 21.20 24.35 31.29 39.87 60.82



NATIONAL RIVERS AUTHORITY : STATION:- 8911805 RIVER AIRE BEAL

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 16 OUT OF 16 PERIOD:- 1977 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:- 35.83 CUMECs

MEDIAN FLOW:- 22.67 CUMECs

MODAL FLOW:- 11.88 CUMECs

MINIMUM MEAN DAILY FLOW:- 4.343 CUMECs ON 17/ 8/1984

MAXIMUM MEAN DAILY FLOW:- 245.7 CUMECs ON 29/12/1978

MAXIMUM INSTANTANEOUS FLOW:- 251.0 CUMECs ON 21/12/1991 AT 03:30

DRY WEATHER FLOW:- 8.309 CUMECs

MODAL FLOW CALCULATED WITH A 2.6% CLASS INTERVAL

NATIONAL RIVERS AUTHORITY : STATION:- 8911805 RIVER AIRE

BEAL

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 15 OUT OF 16 PERIOD:- 1977 TO 1992 SEASON:- JAN TO DEC

FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION:- 8912330 BEDALE BECK LEEMING

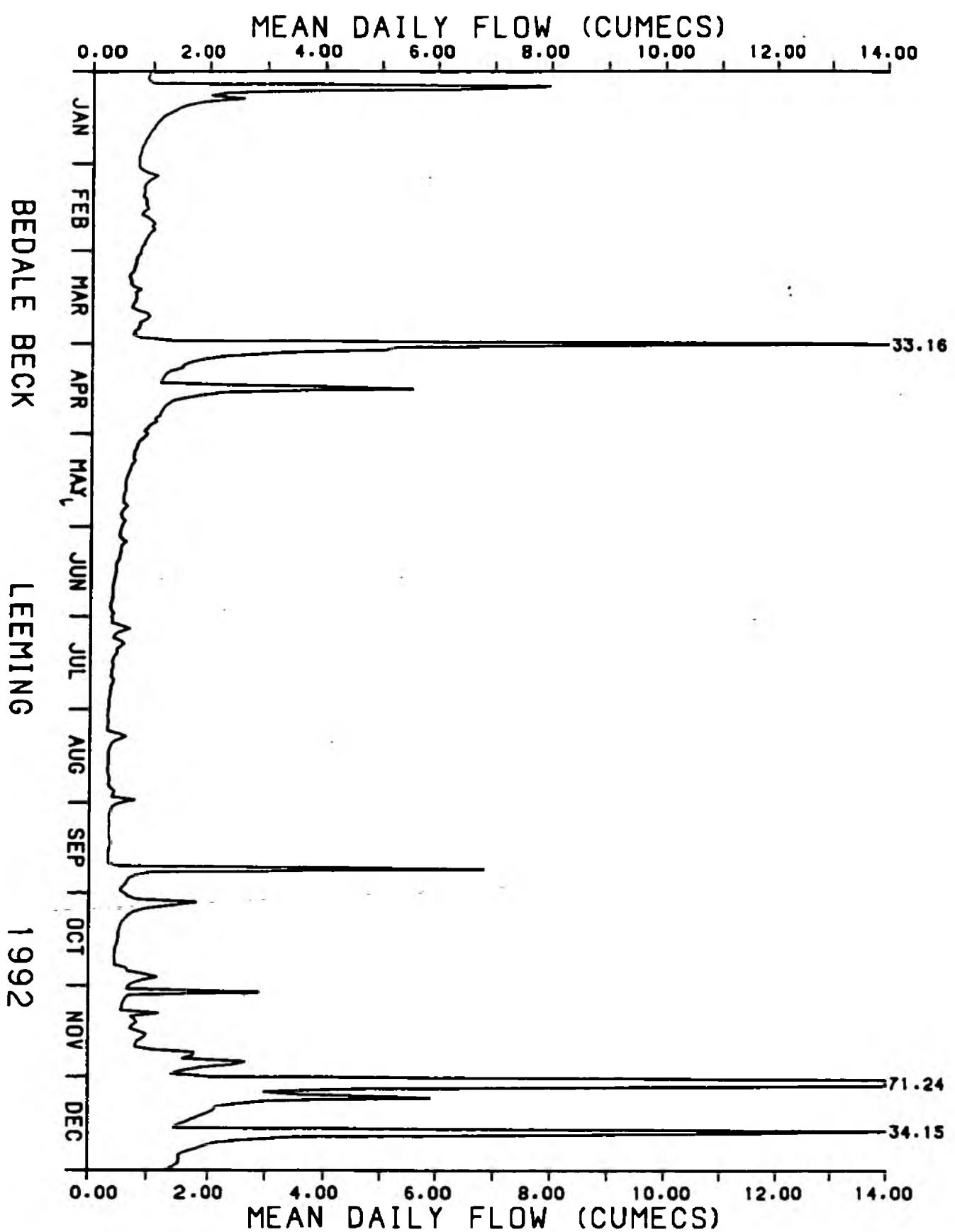
ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMECS) CALENDAR YEAR:- 1992

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	31/31	29/29	31/31	30/30	31/31	30/30	31/31	31/31	30/30	31/31	30/30	31/31
CUMEC DAYS	48.12	25.42	55.50	55.83	19.55	12.94	12.61	11.55	19.78	21.34	35.40	224.0
MINIMUM	0.727	0.728	0.616	0.856	0.501	0.335	0.310	0.297	0.322	0.437	0.551	1.314
MAXIMUM	7.984	1.087	33.16	5.562	0.863	0.604	0.672	0.778	6.851	1.805	2.911	71.24
MEAN	1.552	0.877	1.790	1.861	0.631	0.431	0.407	0.373	0.659	0.688	1.180	7.224
MEDIAN	1.012	0.865	0.708	1.292	0.589	0.420	0.384	0.325	0.362	0.597	0.858	2.094

ANNUAL FLOW STATISTICS

TOTAL NUMBER OF DAYS OF RECORD:- 366/366

TOTAL FLOW:-	542.0	CUMEC DAYS	MINIMUM MEAN DAILY FLOW:-	0.297	CUMECs				
MEAN FLOW:-	1.481	CUMECs	MAXIMUM MEAN DAILY FLOW:-	71.24	CUMECs				
MEDIAN FLOW:-	0.701	CUMECs	MAXIMUM INSTANTANEOUS FLOW:-	103.5	CUMECs 2/12				
			SEVEN DAY MINIMUM FLOW:-	0.306	CUMECs 1-7/8				
PERCENTAGE OF TIME:-	10	20	30	40	50	60	70	80	90
FLOW NOT EXCEEDED:-	0.340	0.390	0.504	0.597	0.700	0.795	0.914	1.196	1.895



NATIONAL RIVERS AUTHORITY : STATION:- 8912330 BEDALE BECK LEEMING

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 9 OUT OF 9 PERIOD:- 1984 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:- 1.943 CUMECMS

MEDIAN FLOW:- 0.840 CUMECMS

MODAL FLOW:- 0.348 CUMECMS

MINIMUM MEAN DAILY FLOW:- 0.234 CUMECMS ON 30/ 9/1989

MAXIMUM MEAN DAILY FLOW:- 82.28 CUMECMS ON 26/ 8/1986

MAXIMUM INSTANTANEOUS FLOW:- 121.3 CUMECMS ON 26/ 8/1986 AT 22:15

DRY WEATHER FLOW:- 0.339 CUMECMS

MODAL FLOW CALCULATED WITH A 11.1% CLASS INTERVAL

The high flow record is suspect.

This weir is subject to drowning caused by backing up from the River Swale.

A downstream chart is available.

NATIONAL RIVERS AUTHORITY : STATION:- 8912330 BEDALE BECK

LEEMING

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 9 OUT OF 9 PERIOD:- 1984 TO 1992 SEASON:- JAN TO DEC

FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION:- 8912830 BIELBY BECK THORNTON LOCK

ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMECS) CALENDAR YEAR:- 1992

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	31/31	29/29	31/31	30/30	31/31	30/30	31/31	31/31	30/30	31/31	30/30	31/31
CUMEC DAYS	6.862	5.814	6.886	11.30	4.775	0.978	2.198	1.048	2.369	6.769	11.63	26.42
MINIMUM	0.086	0.086	0.075	0.209	0.065	0.015	0.032	0.020	0.028	0.076	0.130	0.429
MAXIMUM	0.733	0.686	2.238	1.049	0.393	0.077	0.232	0.080	0.393	0.946	1.121	2.590
MEAN	0.221	0.200	0.222	0.377	0.154	0.033	0.071	0.034	0.079	0.218	0.388	0.852
MEDIAN	0.132	0.173	0.112	0.295	0.154	0.027	0.055	0.031	0.033	0.124	0.345	0.744

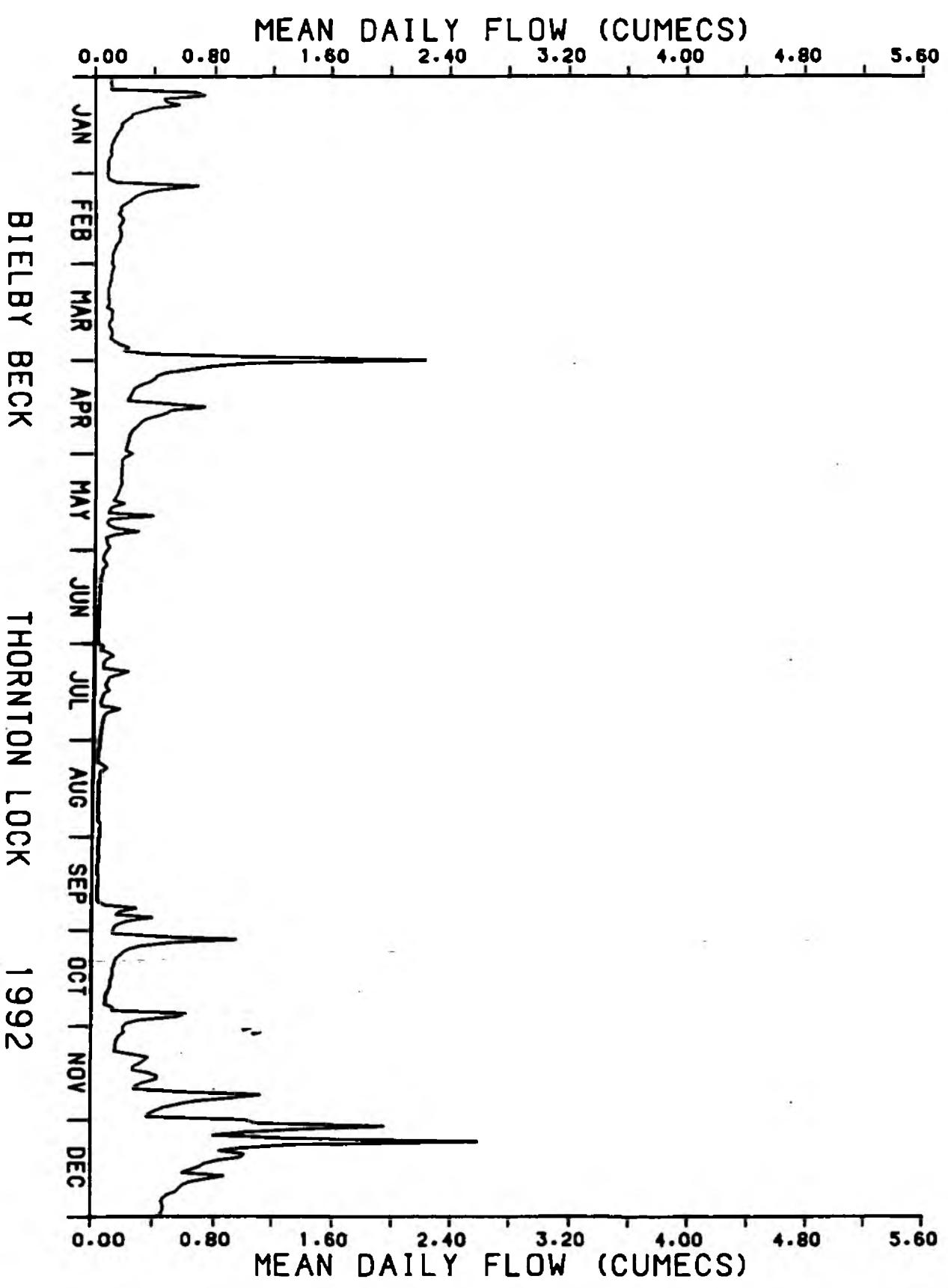
ANNUAL FLOW STATISTICS

TOTAL NUMBER OF DAYS OF RECORD:- 366/366

TOTAL FLOW:-	87.05	CUMEC DAYS	MINIMUM MEAN DAILY FLOW:-	0.015	CUMECs
MEAN FLOW:-	0.238	CUMECs	MAXIMUM MEAN DAILY FLOW:-	2.590	CUMECs
MEDIAN FLOW:-	0.126	CUMECs	MAXIMUM INSTANTANEOUS FLOW:-	4.879	CUMECs 7/12
			SEVEN DAY MINIMUM FLOW:-	0.019	CUMECs 23-29/6

PERCENTAGE OF TIME:- 10 20 30 40 50 60 70 80 90

FLOW NOT EXCEEDED:- 0.030 0.040 0.078 0.102 0.125 0.173 0.230 0.359 0.569



NATIONAL RIVERS AUTHORITY : STATION:- 8912830 BIELBY BECK

THORNTON LOCK

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 9 OUT OF 9 PERIOD:- 1984 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:- 0.332 CUMECs

MEDIAN FLOW:- 0.171 CUMECs

MODAL FLOW:- 0.028 CUMECs

MINIMUM MEAN DAILY FLOW:- 0.008 CUMECs ON 25/ 7/1990

MAXIMUM MEAN DAILY FLOW:- 4.903 CUMECs ON 29/ 1/1984

MAXIMUM INSTANTANEOUS FLOW:- 6.493 CUMECs ON 21/ 1/1985 AT 23:00

DRY WEATHER FLOW:- 0.034 CUMECs

MODAL FLOW CALCULATED WITH A 12.5% CLASS INTERVAL

NATIONAL RIVERS AUTHORITY : STATION:- 8912830 BIELBY BECK

THORNTON LOCK

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 9 OUT OF 9 PERIOD:- 1984 TO 1992 SEASON:- JAN TO DEC

FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION:- 8910660 BLACKBURN BROOK ASHLOWS WORKS

ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMECs) CALENDAR YEAR:- 1992

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	31/31	29/29	31/31	30/30	31/31	30/30	31/31	31/31	30/30	31/31	30/30	31/31
CUMEC DAYS	5.246	1.814	4.877	2.884	1.540	3.846	4.358	3.679	4.042	6.990	12.66	14.63
MINIMUM	0.037	0.036	0.031	0.038	0.009	0.020	0.021	0.002	0.019	0.035	0.087	0.094
MAXIMUM	0.766	0.121	0.535	0.206	0.209	0.798	0.846	1.096	0.473	0.988	1.184	1.874
MEAN	0.169	0.063	0.157	0.096	0.050	0.128	0.141	0.119	0.135	0.225	0.422	0.472
MEDIAN	0.076	0.060	0.096	0.087	0.032	0.063	0.077	0.032	0.075	0.141	0.354	0.268

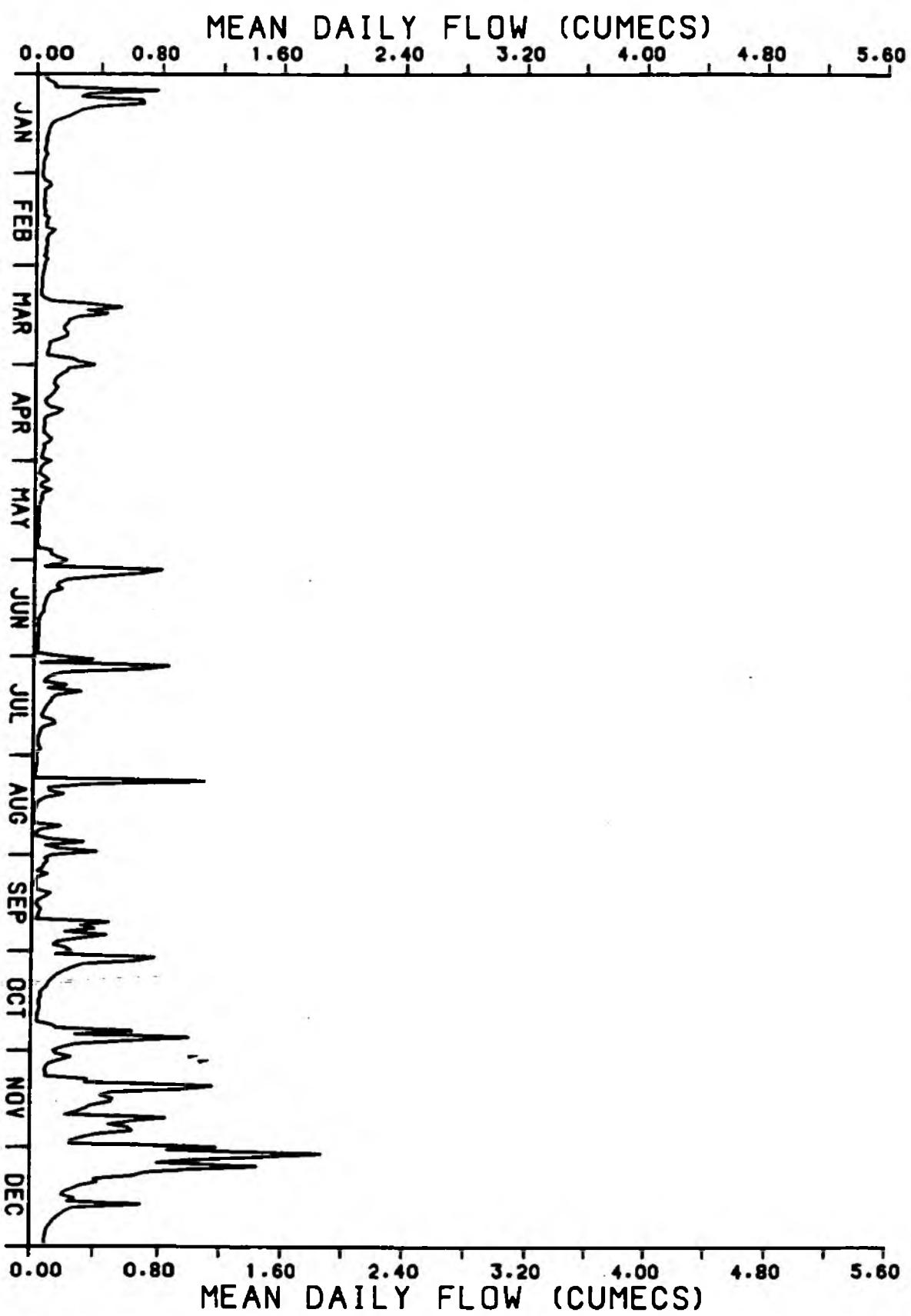
ANNUAL FLOW STATISTICS

TOTAL NUMBER OF DAYS OF RECORD:- 366/366

TOTAL FLOW:-	66.56	CUMEC DAYS	MINIMUM MEAN DAILY FLOW:-	0.002	CUMECs
MEAN FLOW:-	0.182	CUMECs	MAXIMUM MEAN DAILY FLOW:-	1.874	CUMECs
MEDIAN FLOW:-	0.087	CUMECs	MAXIMUM INSTANTANEOUS FLOW:-	5.095	CUMECs 2/12
			SEVEN DAY MINIMUM FLOW:-	0.012	CUMECs 15-21/8

PERCENTAGE OF TIME:-	10	20	30	40	50	60	70	80	90
FLOW NOT EXCEEDED:-	0.026	0.039	0.051	0.065	0.087	0.114	0.168	0.257	0.440

BLACKBURN BROOK ASHLAWS WORKS 1992



NATIONAL RIVERS AUTHORITY : STATION:- 8910660 BLACKBURN BROOK ASHLOWS WORKS

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 12 OUT OF 12 PERIOD:- 1981 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:- 0.258 CUMECs

MEDIAN FLOW:- 0.102 CUMECs

MODAL FLOW:- 0.022 CUMECs

MINIMUM MEAN DAILY FLOW:- 0.001 CUMECs ON 2/ 8/1981

MAXIMUM MEAN DAILY FLOW:- 19.01 CUMECs ON 22/ 6/1982

MAXIMUM INSTANTANEOUS FLOW:- 41.14 CUMECs ON 22/ 6/1982 AT 23:00

DRY WEATHER FLOW:- 0.013 CUMECs

MODAL FLOW CALCULATED WITH A 11.1% CLASS INTERVAL

The high flow record is suspect.

This weir is subject to drowning caused by backing up from the River Don.

A downstream chart record is available.

NATIONAL RIVERS AUTHORITY : STATION:- 8910660 BLACKBURN BROOK ASHLOWS WORKS

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 12 OUT OF 12 PERIOD:- 1981 TO 1992 SEASON:- JAN TO DEC

'FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION:- 8912835 BLACKFOSS BECK SANDHILLS BRIDGE

ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMECS) CALENDAR YEAR:- 1992

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	31/31	29/29	31/31	30/30	31/31	30/30	31/31	31/31	30/30	31/31	30/30	31/31
CUMEC DAYS	4.771	4.747	9.885	10.26	2.775	1.487	1.584	1.225	1.992	6.773	13.86	30.86
MINIMUM	0.073	0.083	0.081	0.130	0.061	0.030	0.035	0.029	0.032	0.069	0.146	0.240
MAXIMUM	0.513	0.680	4.721	1.025	0.143	0.084	0.091	0.066	0.230	1.401	2.981	6.494
MEAN	0.154	0.164	0.319	0.342	0.090	0.050	0.051	0.040	0.066	0.218	0.462	0.995
MEDIAN	0.111	0.135	0.101	0.233	0.082	0.046	0.045	0.037	0.037	0.099	0.330	0.600

ANNUAL FLOW STATISTICS

TOTAL NUMBER OF DAYS OF RECORD:- 366/366

TOTAL FLOW:- 90.22 CUMEC DAYS MINIMUM MEAN DAILY FLOW:- 0.029 CUMECs

MEAN FLOW:- 0.246 CUMECs MAXIMUM MEAN DAILY FLOW:- 6.494 CUMECs

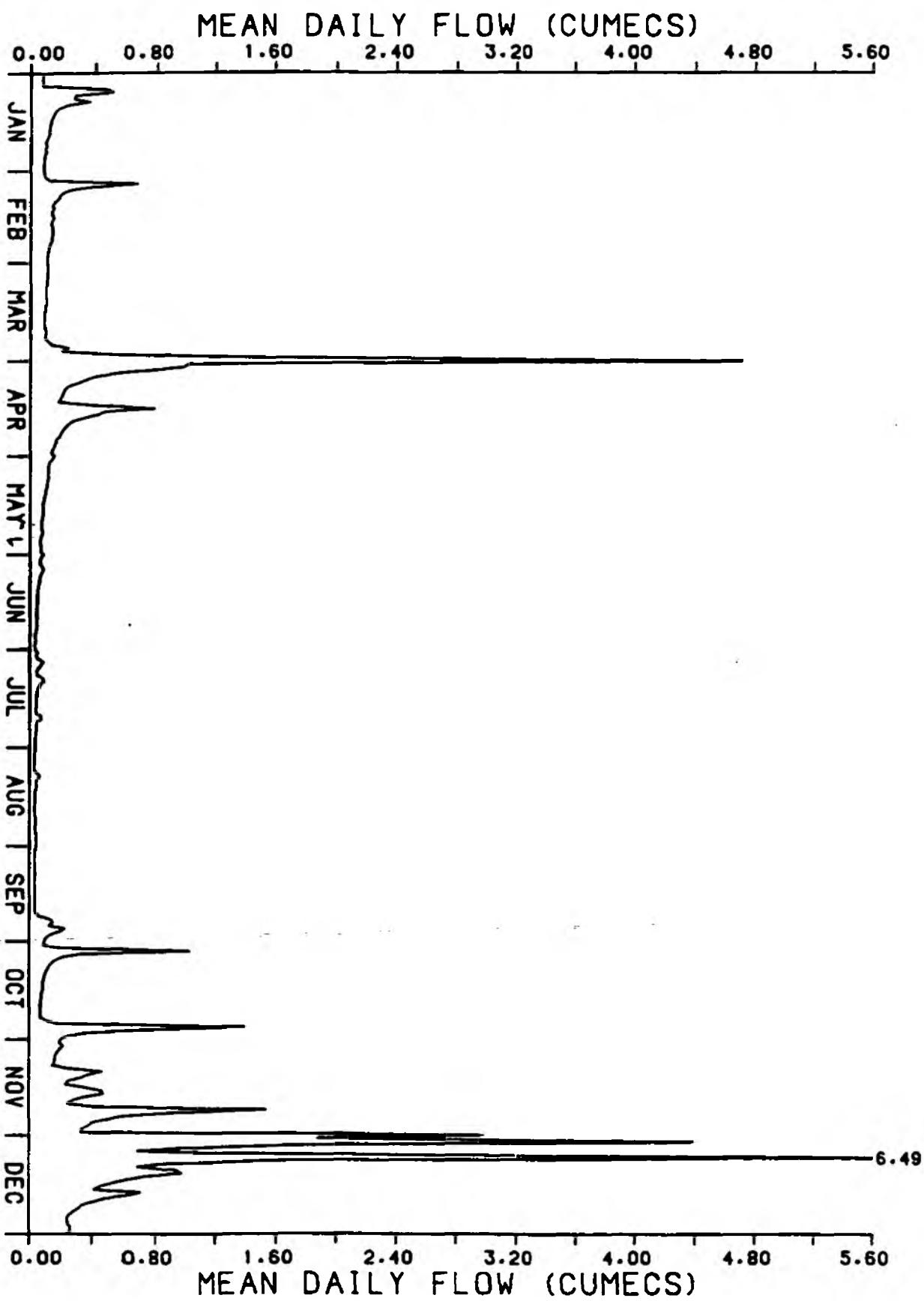
MEDIAN FLOW:- 0.101 CUMECs MAXIMUM INSTANTANEOUS FLOW:- 10.54 CUMECs 7/12

SEVEN DAY MINIMUM FLOW:- 0.032 CUMECs 1-7/8

PERCENTAGE OF TIME:- 10 20 30 40 50 60 70 80 90

FLOW NOT EXCEEDED:- 0.037 0.044 0.069 0.083 0.100 0.124 0.175 0.256 0.468

BLACKFOSS BECK SANDHILLS BRIDGE 1992



NATIONAL RIVERS AUTHORITY : STATION:- 8912835 BLACKFOSS BECK SANDHILLS BRIDGE

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 18 OUT OF 18 PERIOD:- 1975 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:- 0.380 CUMECMS
MEDIAN FLOW:- 0.159 CUMECMS
MODAL FLOW:- 0.078 CUMECMS
MINIMUM MEAN DAILY FLOW:- 0.004 CUMECMS ON 20/ 8/1976
MAXIMUM MEAN DAILY FLOW:- 10.50 CUMECMS ON 9/12/1983
MAXIMUM INSTANTANEOUS FLOW:- 15.91 CUMECMS ON 21/ 1/1985 AT 01:15
DRY WEATHER FLOW:- 0.046 CUMECMS

MODAL FLOW CALCULATED WITH A 12.5% CLASS INTERVAL

The high flow record should be used with caution.

This weir is known to be subject to drowning during large floods.

A limited downstream chart is available.

NATIONAL RIVERS AUTHORITY : STATION:- 8912835 BLACKFOSS BECK SANDHILLS BRIDGE

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 18 OUT OF 18 PERIOD:- 1975 TO 1992 SEASON:- JAN TO DEC

'FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION:- 8911650 BRADFORD BECK SHIPLEY

ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMECS) CALENDAR YEAR:- 1992

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	31/31	29/29	31/31	30/30	31/31	30/30	31/31	31/31	30/30	31/31	30/30	31/31
CUMEC DAYS	31.96	15.33	30.28	19.90	12.23	10.92	7.885	11.96	11.14	18.63	29.65	26.80
MINIMUM	0.326	0.321	0.375	0.439	0.249	0.196	0.168	0.176	0.215	0.198	0.471	0.328
MAXIMUM	11.54	1.413	2.658	1.314	0.980	1.111	0.947	1.720	1.436	3.836	3.189	3.759
MEAN	1.031	0.529	0.977	0.663	0.394	0.364	0.254	0.386	0.371	0.601	0.988	0.865
MEDIAN	0.488	0.492	0.722	0.592	0.366	0.317	0.213	0.232	0.301	0.289	0.904	0.590

ANNUAL FLOW STATISTICS

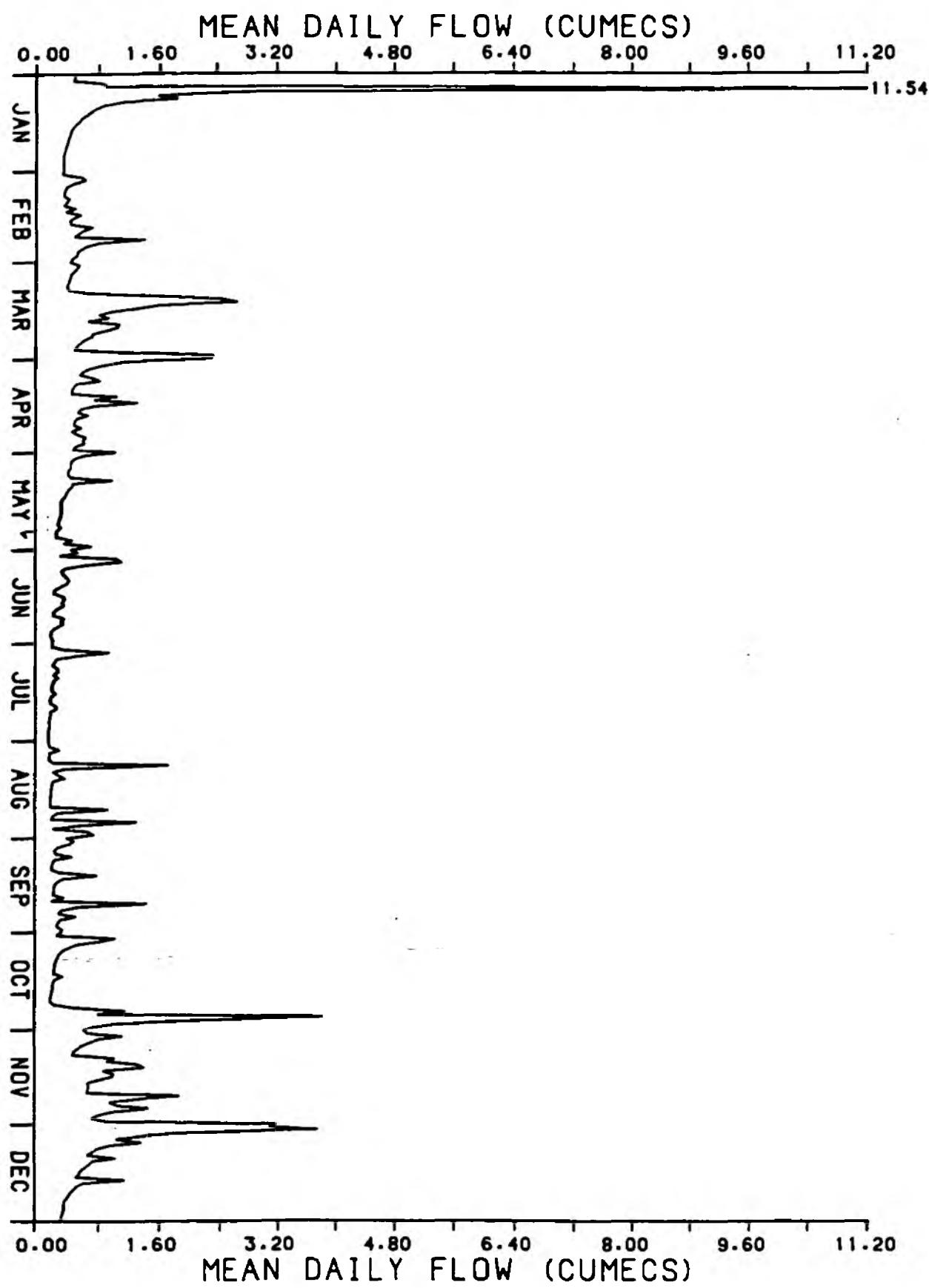
TOTAL NUMBER OF DAYS OF RECORD:- 366/366

TOTAL FLOW:-	226.7	CUMEC DAYS	MINIMUM MEAN DAILY FLOW:-	0.168	CUMECs
MEAN FLOW:-	0.619	CUMECs	MAXIMUM MEAN DAILY FLOW:-	11.54	CUMECs
MEDIAN FLOW:-	0.430	CUMECs	MAXIMUM INSTANTANEOUS FLOW:-	31.18	CUMECs
			SEVEN DAY MINIMUM FLOW:-	0.175	CUMECs

PERCENTAGE OF TIME:- 10 20 30 40 50 60 70 80 90

FLOW NOT EXCEEDED:- 0.218 0.255 0.313 0.364 0.429 0.512 0.618 0.792 1.083

BRADFORD BECK SHIPLEY 1992



NATIONAL RIVERS AUTHORITY : STATION:- 8911650 BRADFORD BECK SHIPLEY

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 9 OUT OF 9 PERIOD:- 1984 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:- 0.660 CUMECMS

MEDIAN FLOW:- 0.382 CUMECMS

MODAL FLOW:- 0.193 CUMECMS

MINIMUM MEAN DAILY FLOW:- 0.119 CUMECMS ON 27/ 8/1984

MAXIMUM MEAN DAILY FLOW:- 12.51 CUMECMS ON 25/ 8/1986

MAXIMUM INSTANTANEOUS FLOW:- 39.69 CUMECMS ON 27/ 6/1991 AT 12:00

DRY WEATHER FLOW:- 0.164 CUMECMS

MODAL FLOW CALCULATED WITH A 5.3% CLASS INTERVAL

NATIONAL RIVERS AUTHORITY : STATION:- 8911650 BRADFORD BECK SHIPLEY

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 9 OUT OF 9 PERIOD:- 1984 TO 1992 SEASON:- JAN TO DEC

'FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION:- 8912760 BROMPTON BECK SNAINTON INGS FARM

ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMECS) CALENDAR YEAR:- 1992

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	31/31	29/29	31/31	30/30	31/31	30/30	31/31	31/31	30/30	31/31	30/30	31/31
CUMEC DAYS	3.389	3.416	3.317	10.57	7.465	4.031	2.926	2.020	1.855	3.352	5.695	12.87
MINIMUM	0.088	0.100 ¹	0.092	0.162	0.161	0.106	0.073	0.055	0.054	0.070	0.157	0.261
MAXIMUM	0.129	0.128	0.139	0.402	0.344	0.160	0.115	0.082	0.073	0.177	0.247	0.512
MEAN	0.109	0.118	0.107	0.352	0.241	0.134	0.094	0.065	0.062	0.108	0.190	0.415
MEDIAN	0.109	0.120	0.109 ¹	0.363	0.230	0.140	0.094	0.063	0.062	0.096	0.182	0.414

ANNUAL FLOW STATISTICS

TOTAL NUMBER OF DAYS OF RECORD:- 366/366

TOTAL FLOW:- 60.91 CUMEC DAYS MINIMUM MEAN DAILY FLOW:- 0.054 CUMEC

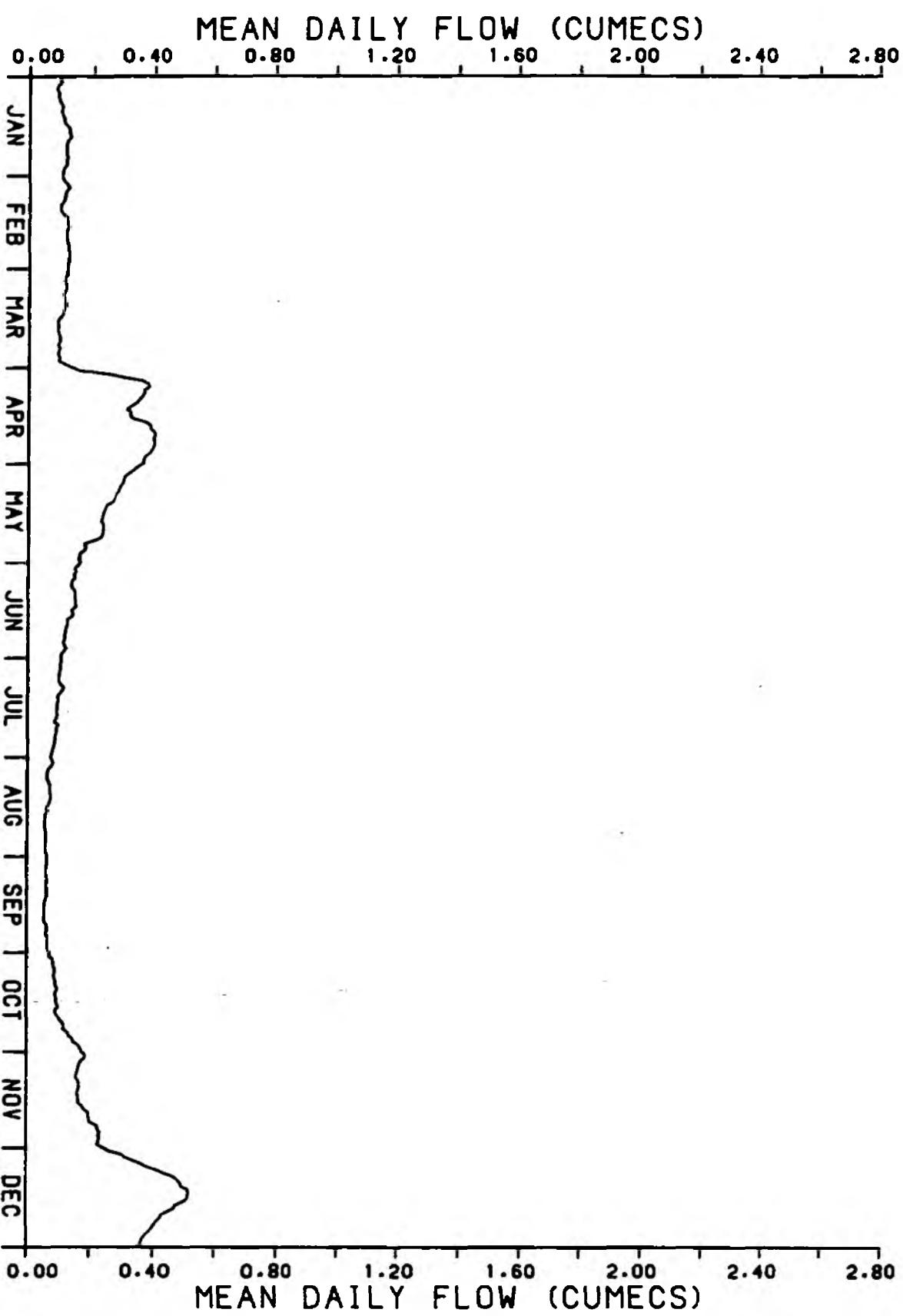
MEAN FLOW:- 0.166 CUMEC MAXIMUM MEAN DAILY FLOW:- 0.512 CUMEC

MEDIAN FLOW:- 0.118 CUMEC MAXIMUM INSTANTANEOUS FLOW:- 0.538 CUMEC 13/12
SEVEN DAY MINIMUM FLOW:- 0.055 CUMEC 14-20/9

PERCENTAGE OF TIME:- 10 20 30 40 50 60 70 80 90

FLOW NOT EXCEEDED:- 0.063 0.087 0.097 0.108 0.118 0.132 0.167 0.241 0.363

BROMPTON BECK SNAINTON INGS FARM 992



NATIONAL RIVERS AUTHORITY : STATION:- 8912760 BROMPTON BECK

SNAINTON INGS FARM

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 12 OUT OF 12 PERIOD:- 1981 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:- 0.235 CUMECs

MEDIAN FLOW:- 0.172 CUMECs

MODAL FLOW:- 0.116 CUMECs

MINIMUM MEAN DAILY FLOW:- 0.000 CUMECs ON 8/10/1990

MAXIMUM MEAN DAILY FLOW:- 1.118 CUMECs ON 7/ 1/1982

MAXIMUM INSTANTANEOUS FLOW:- 1.167 CUMECs ON 08/ 1/1982 AT 20:00

DRY WEATHER FLOW:- 0.065 CUMECs

MODAL FLOW CALCULATED WITH A 11.1% CLASS INTERVAL

NATIONAL RIVERS AUTHORITY : STATION:- 8912760 BROMPTON BECK

SNAINTON INGS FARM

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 12 OUT OF 12 PERIOD:- 1981 TO 1992 SEASON:- JAN TO DEC

FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION:- 8911203 RIVER CALDER ELLAND

ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMECS) CALENDAR YEAR:- 1992

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	31/31	29/29	31/31	30/30	31/31	30/30	31/31	31/31	30/30	31/31	30/30	31/31
CUMEC DAYS	304.5	140.9	341.8	210.5	152.1	95.38	85.05	131.3	171.3	261.6	541.0	496.6
MINIMUM	2.844	2.813	4.178	3.632	2.685	2.183	1.944	1.883	3.273	2.816	8.969	3.783
MAXIMUM	79.65	10.39	27.01	18.46	11.14	8.199	7.203	17.17	11.49	37.66	49.39	66.27
MEAN	9.822	4.857	11.03	7.016	4.907	3.179	2.743	4.235	5.711	8.440	18.03	16.02
MEDIAN	5.318	4.393	9.786	6.023	4.044	2.662	2.521	2.756	4.827	4.365	16.62	10.81

ANNUAL FLOW STATISTICS

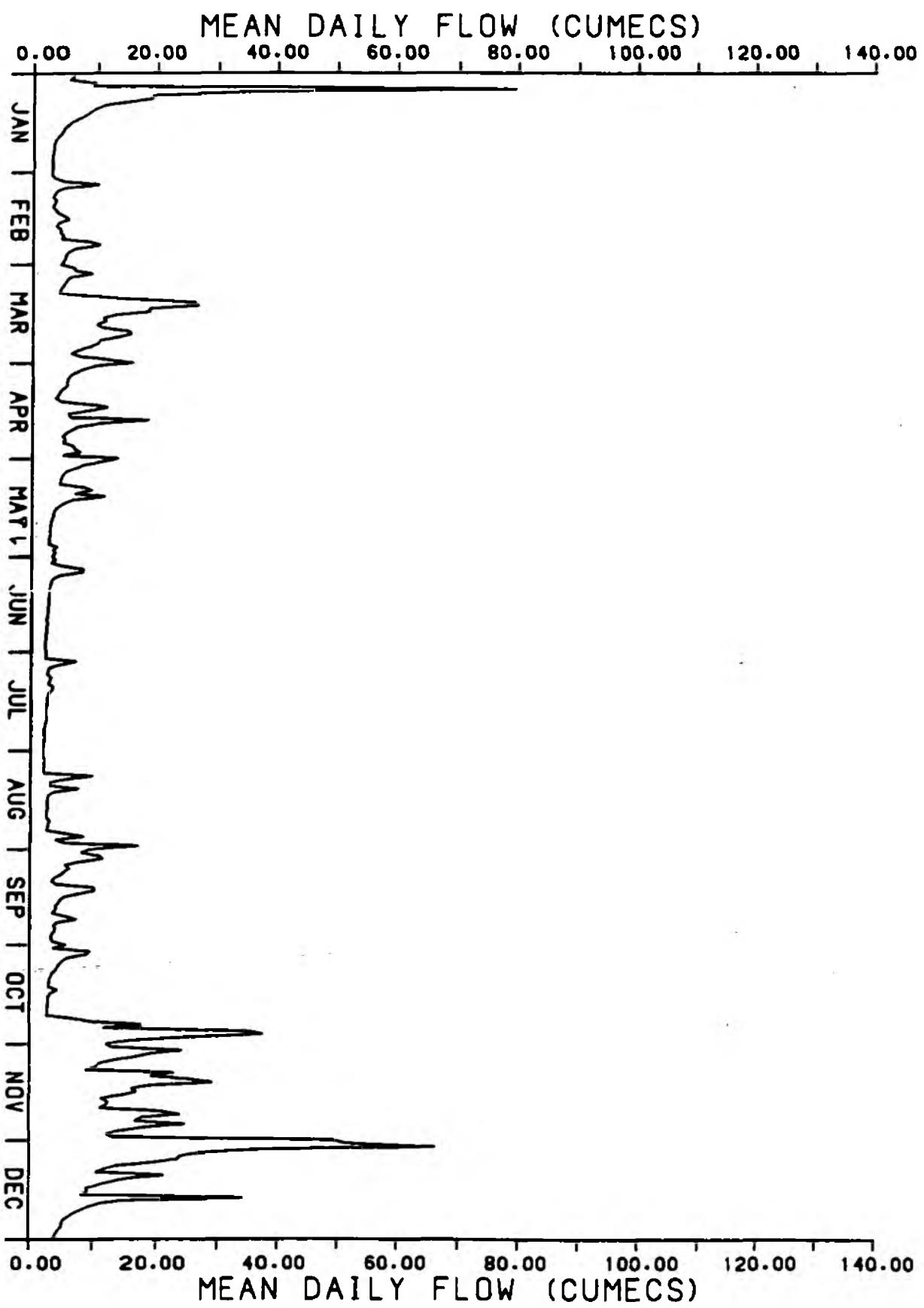
TOTAL NUMBER OF DAYS OF RECORD:- 366/366

TOTAL FLOW:-	2932. CUMEC DAYS	MINIMUM MEAN DAILY FLOW:-	1.883 CUMECs
MEAN FLOW:-	8.011 CUMECs	MAXIMUM MEAN DAILY FLOW:-	79.65 CUMECs
MEDIAN FLOW:-	4.981 CUMECs	MAXIMUM INSTANTANEOUS FLOW:-	117.1 CUMECs 5/1
		SEVEN DAY MINIMUM FLOW:-	2.029 CUMECs 27/7-2/8

PERCENTAGE OF TIME:- 10 20 30 40 50 60 70 80 90

FLOW NOT EXCEEDED:- 2.523 2.894 3.400 4.104 4.960 6.039 8.444 11.09 16.74

RIVER CALDER
ELLAND
1992



NATIONAL RIVERS AUTHORITY : STATION:- 8911203 RIVER CALDER

ELLAND

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 21 OUT OF 21 PERIOD:- 1972 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:- 8.688 CUMECs

MEDIAN FLOW:- 5.163 CUMECs

MODAL FLOW:- 2.834 CUMECs

MINIMUM MEAN DAILY FLOW:- 1.230 CUMECs ON 26/ 8/1984

MAXIMUM MEAN DAILY FLOW:- 226.5 CUMECs ON 28/12/1978

MAXIMUM INSTANTANEOUS FLOW:- 411.3 CUMECs ON 27/10/1980 AT 19:00

DRY WEATHER FLOW:- 2.120 CUMECs

MODAL FLOW CALCULATED WITH A 5.3% CLASS INTERVAL

This weir was breached in January 1982.

It has been rebuilt and a calibration is being prepared.

The new rating applies from 1982 and records will be reprocessed from that date.

NATIONAL RIVERS AUTHORITY : STATION:- 8911203 RIVER CALDER ELLAND

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 21 OUT OF 21 PERIOD:- 1972 TO 1992 SEASON:- JAN TO DEC

'FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION:- 8911304 RIVER CALDER

NEWLAND

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 4 OUT OF 4 PERIOD:- 1972 TO 1975 SEASON:- JAN TO DEC

1 MEAN FLOW:- 14.03 CUMECMS

MEDIAN FLOW:- 10.05 CUMECMS

MODAL FLOW:- 4.512 CUMECMS

MINIMUM MEAN DAILY FLOW:- 2.710 CUMECMS ON 6/7/1975

MAXIMUM MEAN DAILY FLOW:- 142.3 CUMECMS ON 22/1/1975

MAXIMUM INSTANTANEOUS FLOW:- 220.9 CUMECMS ON 22/1/1975 AT 22:30

DRY WEATHER FLOW:- 4.033 CUMECMS

MODAL FLOW CALCULATED WITH A 2.8% CLASS INTERVAL

NATIONAL RIVERS AUTHORITY : STATION:- 8911304 RIVER CALDER NEWLAND

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 4 OUT OF 4 PERIOD:- 1972 TO 1975 SEASON:- JAN TO DEC

'FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION:- 8911301 RIVER CALDER METHLEY

ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMECS) CALENDAR YEAR:- 1992

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	5/31	25/29	31/31	30/30	31/31	30/30	5/31	26/31	0/30	28/31	30/30	31/31
CUMEC DAYS	219.4	304.7	694.7	471.6	356.2	279.8	69.87	332.6	0.000	577.9	1115.	1123.
MINIMUM	13.44	9.540	9.880	10.05	7.490	5.220	6.820	5.850	0.000	7.860	18.87	12.06
MAXIMUM	152.0	21.61	60.25	26.40	23.87	27.42	22.29	27.61	0.000	95.40	93.75	147.1
MEAN	43.87	12.19	22.41	15.72	11.49	9.328	13.97	12.79	0.000	20.64	37.16	36.21
MEDIAN	17.10	11.67	19.30	14.54	10.55	7.395	11.39	11.77	0.000	10.97	34.94	25.30

ANNUAL FLOW STATISTICS

TOTAL NUMBER OF DAYS OF RECORD:- 272/366

TOTAL FLOW:- 5544. CUMEC DAYS MINIMUM MEAN DAILY FLOW:- 5.220 CUMECs

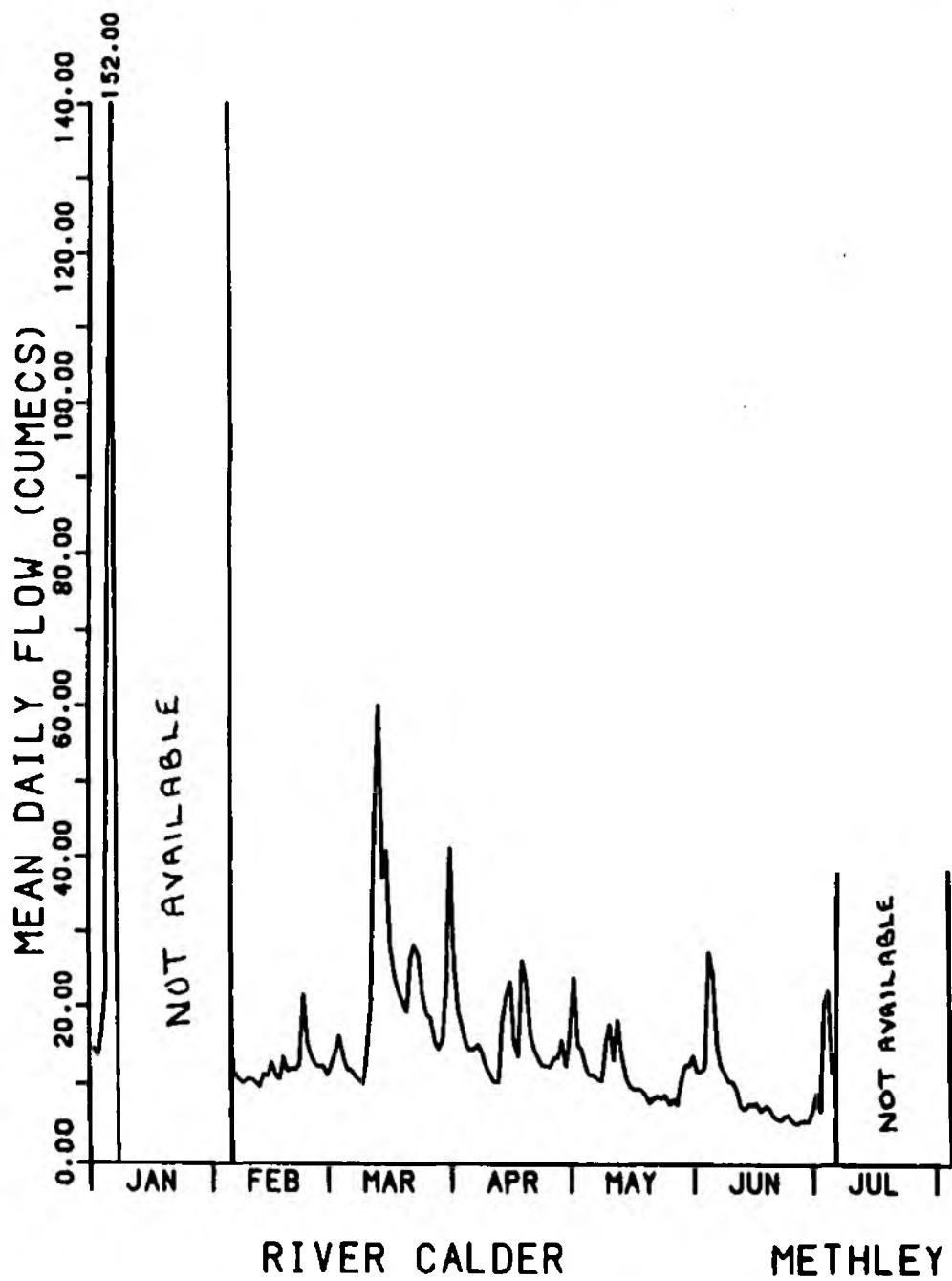
MEAN FLOW:- 20.38 CUMECs MAXIMUM MEAN DAILY FLOW:- 152.0 CUMECs

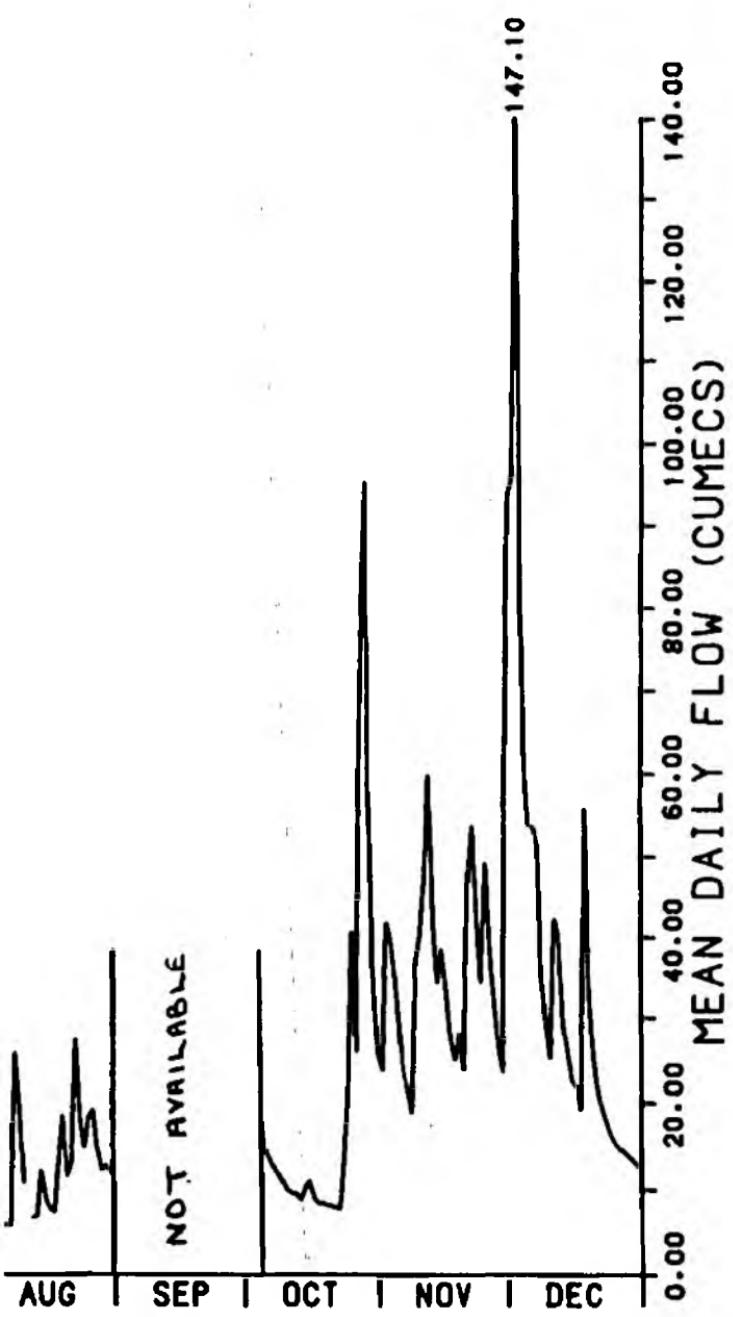
MEDIAN FLOW:- 13.91 CUMECs MAXIMUM INSTANTANEOUS FLOW:- 0.000 CUMECs

SEVEN DAY MINIMUM FLOW:- 5.787 CUMECs

PERCENTAGE OF TIME:- 10 20 30 40 50 60 70 80 90

FLOW NOT EXCEEDED:- 7.490 9.540 11.17 12.33 13.87 16.08 21.01 26.40 40.34





1992

NATIONAL RIVERS AUTHORITY : STATION:- 8911301 RIVER CALDER METHLEY

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 6 OUT OF 6 PERIOD:- 1987 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:- 18.60 CUMECs

MEDIAN FLOW:- 12.38 CUMECs

MODAL FLOW:- 8.157 CUMECs

MINIMUM MEAN DAILY FLOW:- 4.450 CUMECs ON 1/8/1990

MAXIMUM MEAN DAILY FLOW:- 190.4 CUMECs ON 21/12/1991

MAXIMUM INSTANTANEOUS FLOW:- N/A

DRY WEATHER FLOW:- 5.747 CUMECs

MODAL FLOW CALCULATED WITH A 4.2% CLASS INTERVAL

NATIONAL RIVERS AUTHORITY : STATION:- 8911301 RIVER CALDER

METHLEY

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 6 OUT OF 6 PERIOD:- 1987 TO 1992 SEASON:- JAN TO DEC

'FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION:- 8911104 RIVER COLNE LONGROYD BRIDGE

ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMECS) CALENDAR YEAR:- 1992

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	31/31	29/29	31/31	30/30	31/31	30/30	31/31	31/31	30/30	31/31	30/30	31/31
CUMEC DAYS	48.19	18.39	35.47	24.99	18.56	13.56	12.29	17.95	23.22	39.50	75.46	71.46
MINIMUM	0.374	0.391	0.341	0.376	0.323	0.216	0.227	0.228	0.407	0.365	0.944	0.404
MAXIMUM	17.25	1.349	3.420	2.012	1.116	1.356	1.323	1.805	2.122	7.643	11.04	10.60
MEAN	1.554	0.634	1.144	0.833	0.599	0.452	0.397	0.579	0.774	1.274	2.515	2.305
MEDIAN	0.687	0.595	0.927	0.721	0.580	0.373	0.357	0.404	0.676	0.559	2.129	1.171

ANNUAL FLOW STATISTICS

TOTAL NUMBER OF DAYS OF RECORD:- 366/366

TOTAL FLOW:- 399.1 CUMEC DAYS MINIMUM MEAN DAILY FLOW:- 0.216 CUMECs

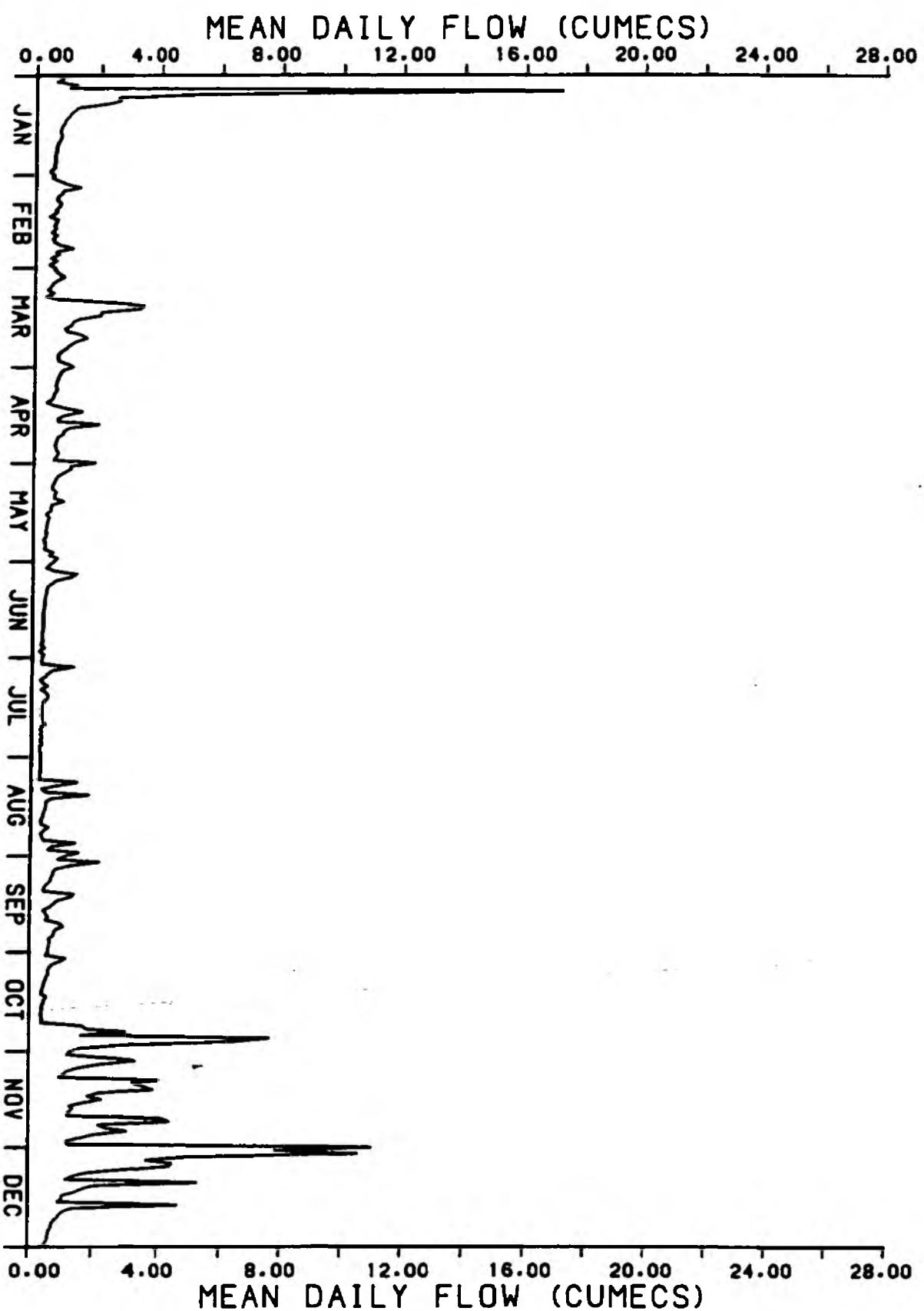
MEAN FLOW:- 1.090 CUMECs MAXIMUM MEAN DAILY FLOW:- 17.25 CUMECs

MEDIAN FLOW:- 0.646 CUMECs MAXIMUM INSTANTANEOUS FLOW:- 32.20 CUMECs 8/1
SEVEN DAY MINIMUM FLOW:- 0.280 CUMECs 1-7/8

PERCENTAGE OF TIME:- 10 20 30 40 50 60 70 80 90

FLOW NOT EXCEEDED:- 0.333 0.397 0.484 0.575 0.646 0.726 0.930 1.270 2.068

RIVER COLNE
LONGROYD BRIDGE 1992



NATIONAL RIVERS AUTHORITY : STATION:- 8911104 RIVER COLNE

LONGROYD BRIDGE

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 14 OUT OF 14 PERIOD:- 1979 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:- 1.442 CUMECs
MEDIAN FLOW:- 0.761 CUMECs
MODAL FLOW:- 0.429 CUMECs
MINIMUM MEAN DAILY FLOW:- 0.107 CUMECs ON 25/ 8/1984
MAXIMUM MEAN DAILY FLOW:- 26.65 CUMECs ON 21/12/1991
MAXIMUM INSTANTANEOUS FLOW:- 38.87 CUMECs ON 21/ 3/1981 AT 19:45
DRY WEATHER FLOW:- 0.319 CUMECs

MODAL FLOW CALCULATED WITH A 11.1% CLASS INTERVAL

NATIONAL RIVERS AUTHORITY : STATION:- 8911104 RIVER COLNE

LONGROYD BRIDGE

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 14 OUT OF 14 PERIOD:- 1979 TO 1992 SEASON:- JAN TO DEC

'FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION:- 8911102 RIVER COLNE COLNE BRIDGE

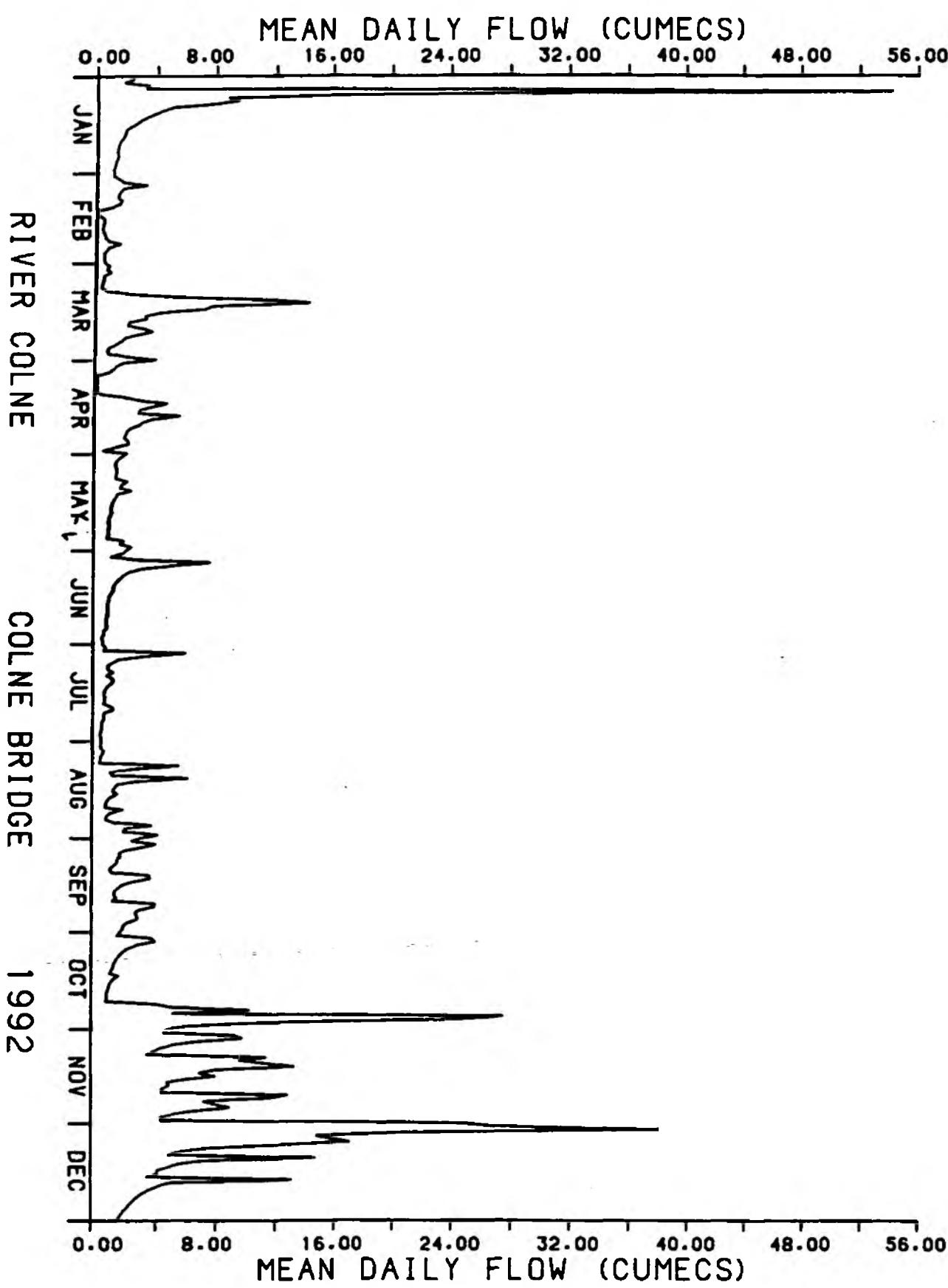
ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMECS) CALENDAR YEAR:- 1992

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	31/31	29/29	31/31	30/30	31/31	30/30	31/31	31/31	30/30	31/31	30/30	31/31
CUMEC DAYS	157.5	26.88	90.58	55.67	39.85	44.89	33.75	53.72	67.53	136.0	234.6	257.4
MINIMUM	1.007	0.028 ¹	0.315	0.048	0.790	0.513	0.464	0.483	1.085	0.939	3.377	1.628
MAXIMUM	54.34	3.292	14.30	5.542	2.293	7.533	5.919	6.116	4.031	27.54	24.99	38.08
MEAN	5.081	0.927	2.922	1.856	1.286	1.496	1.089	1.733	2.251	4.387	7.821	8.302
MEDIAN	2.009	0.597	2.002	1.876	1.218	0.916	0.777	1.276	1.949	1.740	6.846	4.853

ANNUAL FLOW STATISTICS

TOTAL NUMBER OF DAYS OF RECORD:- 366/366

TOTAL FLOW:-	1198.	CUMEC DAYS	MINIMUM MEAN DAILY FLOW:-	0.028	CUMECs				
MEAN FLOW:-	3.274	CUMECs	MAXIMUM MEAN DAILY FLOW:-	54.34	CUMECs				
MEDIAN FLOW:-	1.620	CUMECs	MAXIMUM INSTANTANEOUS FLOW:-	91.16	CUMECs 5/1				
			SEVEN DAY MINIMUM FLOW:-	0.176	CUMECs 5-11/4				
PERCENTAGE OF TIME:-	10	20	30	40	50	60	70	80	90
FLOW NOT EXCEEDED:-	0.563	0.850	1.067	1.313	1.619	2.015	2.893	4.168	7.098



NATIONAL RIVERS AUTHORITY : STATION:- 8911102 RIVER COLNE

COLNE BRIDGE

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 28 OUT OF 28 PERIOD:- 1965 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:- 4.435 CUMECMS

MEDIAN FLOW:- 2.443 CUMECMS

MODAL FLOW:- 0.774 CUMECMS

MINIMUM MEAN DAILY FLOW:- 0.028 CUMECMS ON 13/ 2/1992

MAXIMUM MEAN DAILY FLOW:- 118.6 CUMECMS ON 28/12/1978

MAXIMUM INSTANTANEOUS FLOW:- 272.1 CUMECMS ON 16/10/1967 AT 03:15

DRY WEATHER FLOW:- 0.664 CUMECMS

MODAL FLOW CALCULATED WITH A 5.0% CLASS INTERVAL

Future adjustment of the rating may slightly reduce high flows.

NATIONAL RIVERS AUTHORITY : STATION:- 8911102 RIVER COLNE

COLNE BRIDGE

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 28 OUT OF 28 PERIOD:- 1965 TO 1992 SEASON:- JAN TO DEC

'FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION:- 8912518 COSTA BECK GATEHOUSES

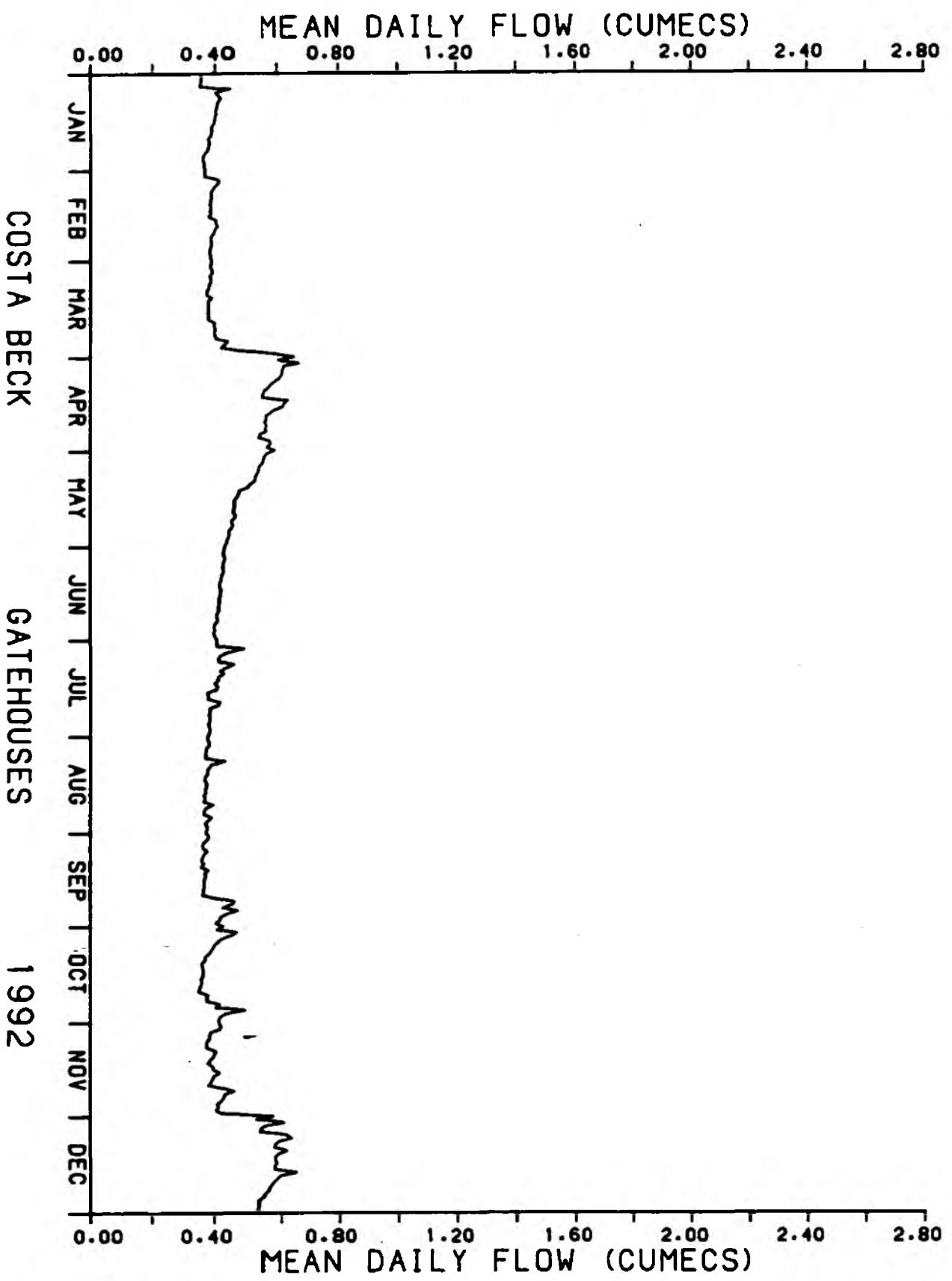
ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMECS) CALENDAR YEAR:- 1992

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	31/31	29/29	31/31	30/30	31/31	30/30	31/31	31/31	30/30	31/31	30/30	31/31
CUMEC DAYS	11.98	11.34	12.70	17.37	14.92	12.47	12.56	11.69	11.69	12.17	12.25	17.75
MINIMUM	0.351	0.368 ¹	0.375	0.527	0.431	0.397	0.376	0.365	0.357	0.349	0.375	0.527
MAXIMUM	0.444	0.414	0.658	0.672	0.555	0.434	0.487	0.434	0.473	0.496	0.574	0.658
MEAN	0.386	0.391	0.410	0.579	0.481	0.416	0.405	0.377	0.390	0.393	0.408	0.573
MEDIAN	0.386	0.390	0.389	0.570	0.465	0.415	0.406	0.373	0.371	0.380	0.400	0.576

ANNUAL FLOW STATISTICS

TOTAL NUMBER OF DAYS OF RECORD:- 366/366

TOTAL FLOW:-	158.9	CUMEC DAYS	MINIMUM MEAN DAILY FLOW:-	0.349	CUMECs				
MEAN FLOW:-	0.434	CUMECs	MAXIMUM MEAN DAILY FLOW:-	0.672	CUMECs				
MEDIAN FLOW:-	0.405	CUMECs	MAXIMUM INSTANTANEOUS FLOW:-	1.029	CUMECs 22/9				
			SEVEN DAY MINIMUM FLOW:-	0.357	CUMECs 15-21/10				
PERCENTAGE OF TIME:-	10	20	30	40	50	60	70	80	90
FLOW NOT EXCEEDED:-	0.368	0.378	0.384	0.392	0.405	0.416	0.434	0.512	0.567



NATIONAL RIVERS AUTHORITY : STATION:- 8912518 COSTA BECK

GATEHOUSES

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 22 OUT OF 22 PERIOD:- 1971 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:- 0.568 CUMECs

MEDIAN FLOW:- 0.540 CUMECs

MODAL FLOW:- 0.484 CUMECs

MINIMUM MEAN DAILY FLOW:- 0.283 CUMECs ON 11/ 9/1990

MAXIMUM MEAN DAILY FLOW:- 1.661 CUMECs ON 8/12/1990

MAXIMUM INSTANTANEOUS FLOW:- 2.495 CUMECs ON 08/12/1990 AT 03:15

DRY WEATHER FLOW:- 0.413 CUMECs

MODAL FLOW CALCULATED WITH A 7.7% CLASS INTERVAL

This weir is subject to occasional drowning caused by weed growth in the channel downstream.
When this is known to have occurred, level and flow data have been omitted from the record.

NATIONAL RIVERS AUTHORITY : STATION:- 8912518 COSTA BECK

GATEHOUSES

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 22 OUT OF 22 PERIOD:- 1971 TO 1992 SEASON:- JAN TO DEC

'FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION:- 8912120 RIVER CRIMPLE BURN BRIDGE

ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMECS) CALENDAR YEAR:- 1992

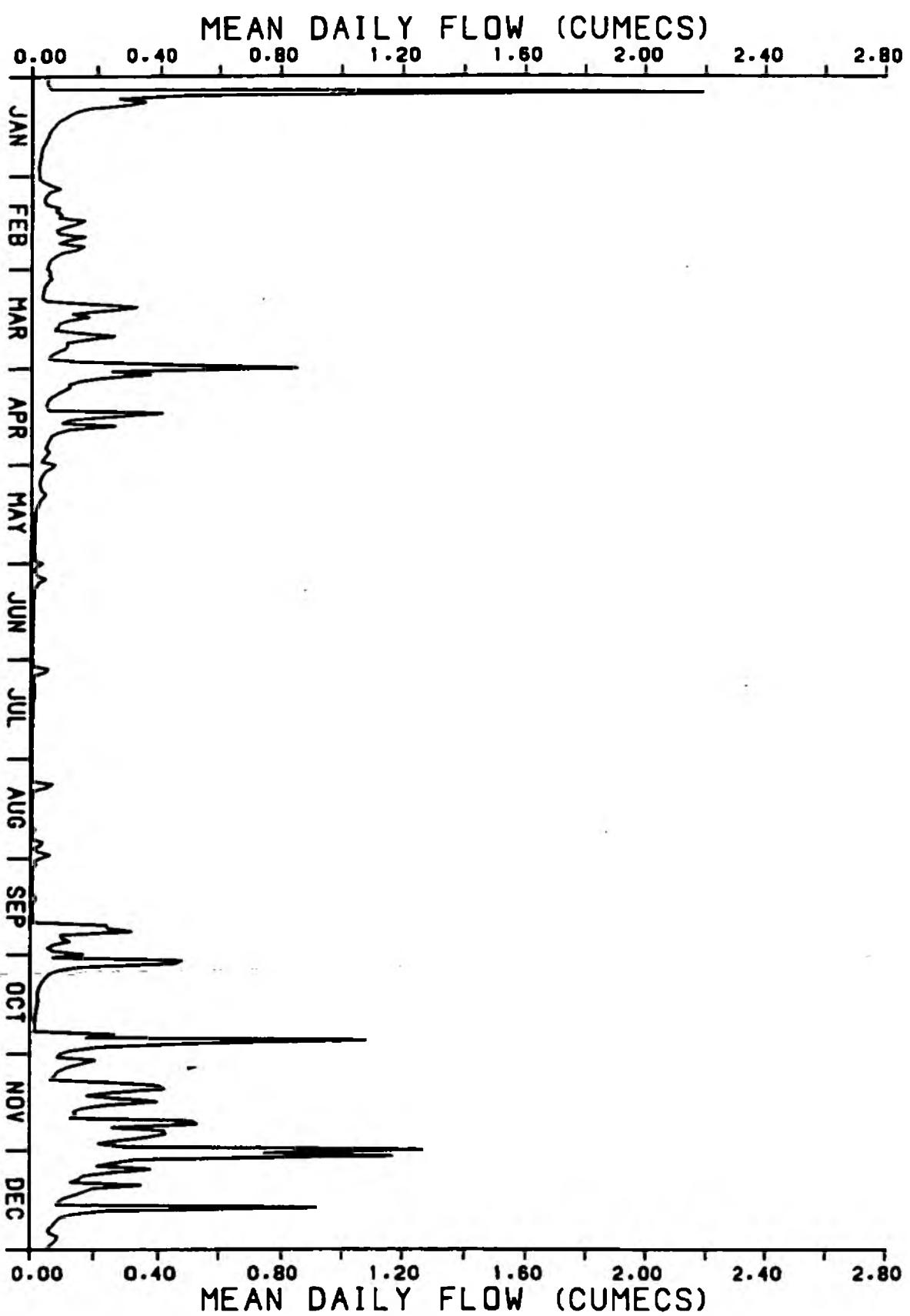
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	31/31	29/29	31/31	30/30	31/31	30/30	31/31	31/31	30/30	31/31	30/30	31/31
CUMEC DAYS	5.094	2.431	4.484	3.549	0.692	0.310	0.290	0.436	1.680	4.179	8.467	7.008
MINIMUM	0.022	0.024	0.033	0.033	0.007	0.004	0.003	0.003	0.005	0.015	0.063	0.053
MAXIMUM	2.194	0.168	0.856	0.406	0.065	0.047	0.055	0.070	0.310	1.084	1.266	1.171
MEAN	0.164	0.084	0.145	0.118	0.022	0.010	0.009	0.014	0.056	0.135	0.282	0.226
MEDIAN	0.053	0.077	0.088	0.078	0.014	0.006	0.006	0.005	0.012	0.035	0.248	0.136

ANNUAL FLOW STATISTICS

TOTAL NUMBER OF DAYS OF RECORD:- 366/366

TOTAL FLOW:-	38.62	CUMEC DAYS	MINIMUM MEAN DAILY FLOW:-	0.003	CUMECs				
MEAN FLOW:-	0.106	CUMECs	MAXIMUM MEAN DAILY FLOW:-	2.194	CUMECs				
MEDIAN FLOW:-	0.048	CUMECs	MAXIMUM INSTANTANEOUS FLOW:-	4.933	CUMECs 5/1				
			SEVEN DAY MINIMUM FLOW:-	0.003	CUMECs 27/7-2/8				
PERCENTAGE OF TIME:-	10	20	30	40	50	60	70	80	90
FLOW NOT EXCEEDED:-	0.005	0.008	0.015	0.028	0.048	0.063	0.091	0.146	0.261

RIVER CRIMPLE BURN BRIDGE 1992



NATIONAL RIVERS AUTHORITY : STATION:- 8912120 RIVER CRIMPLE

BURN BRIDGE

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 21 OUT OF 21 PERIOD:- 1972 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:- 0.109 CUMECs

MEDIAN FLOW:- 0.044 CUMECs

MODAL FLOW:- 0.009 CUMECs

MINIMUM MEAN DAILY FLOW:- 0.002 CUMECs ON 10/ 8/1976

MAXIMUM MEAN DAILY FLOW:- 3.600 CUMECs ON 28/12/1978

MAXIMUM INSTANTANEOUS FLOW:- 7.396 CUMECs ON 09/12/1983 AT 10:15

DRY WEATHER FLOW:- 0.006 CUMECs

MODAL FLOW CALCULATED WITH A 20.0% CLASS INTERVAL

NATIONAL RIVERS AUTHORITY : STATION:- 8912120 RIVER CRIMPLE

BURN BRIDGE

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 21 OUT OF 21 PERIOD:- 1972 TO 1992 SEASON:- JAN TO DEC

'FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION:- 8912311 CUNDALL BECK BAT BRIDGE

ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMECs) CALENDAR YEAR:- 1992

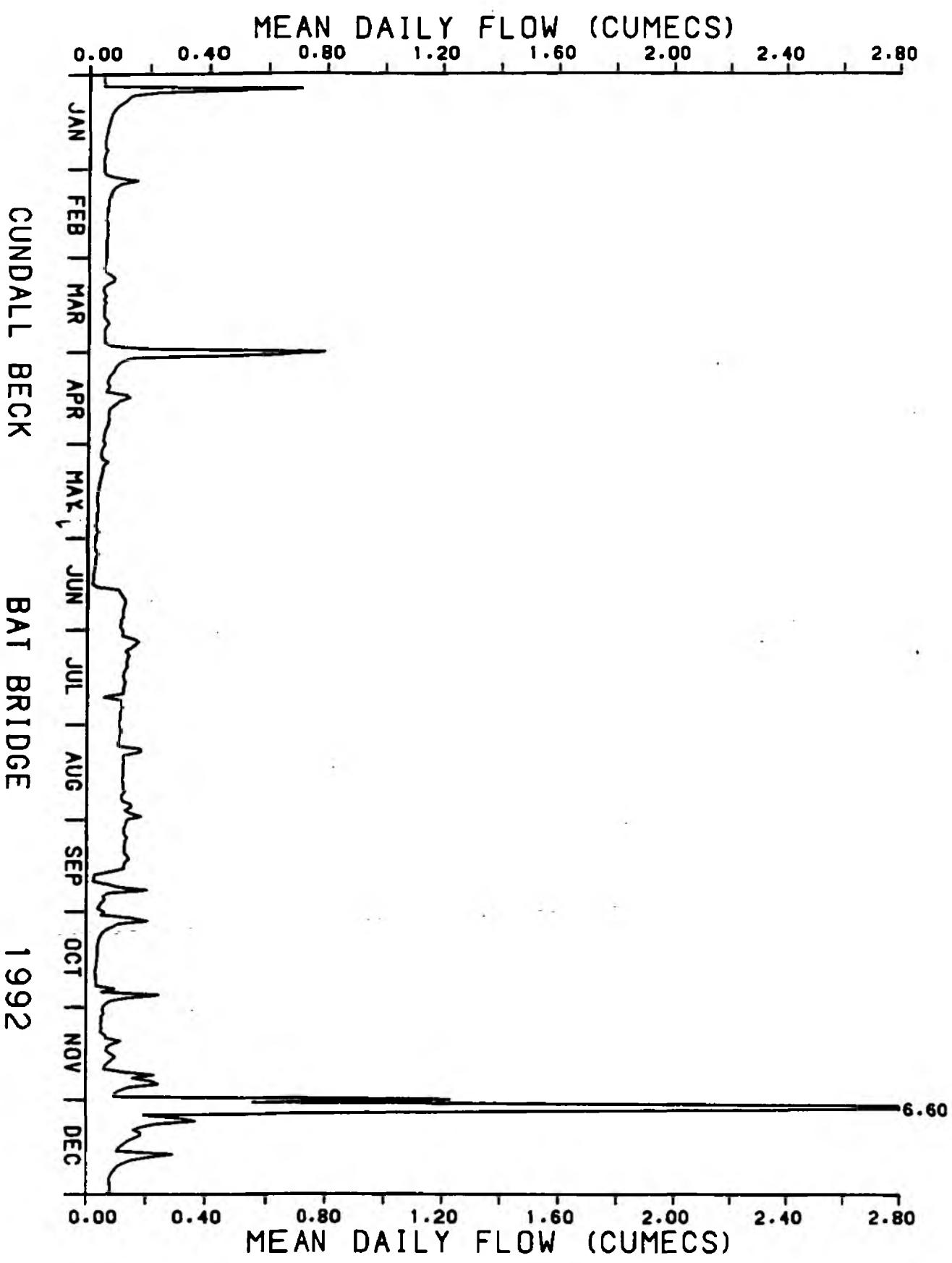
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	31/31	29/29	31/31	30/30	31/31	30/30	31/31	31/31	30/30	31/31	30/30	31/31
CUMEC DAYS	2.892	2.003	2.642	2.920	1.198	2.030	3.835	3.946	2.969	2.064	4.007	16.86
MINIMUM	0.047	0.049	0.048	0.050	0.025	0.016	0.055	0.102	0.021	0.031	0.049	0.073
MAXIMUM	0.713	0.161	0.792	0.627	0.068	0.128	0.173	0.184	0.203	0.245	1.230	6.603
MEAN	0.093	0.069	0.085	0.097	0.039	0.068	0.124	0.127	0.099	0.067	0.134	0.564
MEDIAN	0.059	0.062	0.054	0.069	0.037	0.036	0.121	0.122	0.124	0.042	0.078	0.154

ANNUAL FLOW STATISTICS

TOTAL NUMBER OF DAYS OF RECORD:- 366/366

TOTAL FLOW:-	47.36	CUMEC DAYS	MINIMUM MEAN DAILY FLOW:-	0.016	CUMECs
MEAN FLOW:-	0.129	CUMECs	MAXIMUM MEAN DAILY FLOW:-	6.603	CUMECs
MEDIAN FLOW:-	0.073	CUMECs	MAXIMUM INSTANTANEOUS FLOW:-	7.284	CUMECs 3/12
			SEVEN DAY MINIMUM FLOW:-	0.020	CUMECs 9-15/6

PERCENTAGE OF TIME:-	10	20	30	40	50	60	70	80	90
FLOW NOT EXCEEDED:-	0.034	0.049	0.053	0.061	0.073	0.098	0.117	0.125	0.150



NATIONAL RIVERS AUTHORITY : STATION:- 8912311 CUNDALL BECK

BAT BRIDGE

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 6 OUT OF 6 PERIOD:- 1987 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:- 0.145 CUMECMS

MEDIAN FLOW:- 0.082 CUMECMS

MODAL FLOW:- 0.067 CUMECMS

MINIMUM MEAN DAILY FLOW:- 0.016 CUMECMS ON 15/ 6/1992

MAXIMUM MEAN DAILY FLOW:- 6.603 CUMECMS ON 3/12/1992

MAXIMUM INSTANTANEOUS FLOW:- 7.284 CUMECMS ON 03/12/1992 AT 04:00

DRY WEATHER FLOW:- 0.034 CUMECMS

MODAL FLOW CALCULATED WITH A 11.1% CLASS INTERVAL

NATIONAL RIVERS AUTHORITY : STATION:- 8912311 CUNDALL BECK

BAT BRIDGE

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 6 OUT OF 6 PERIOD:- 1987 TO 1992 SEASON:- JAN TO DEC

¹ FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION:- 8910806 RIVER DEARNE BARNSLEY

ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMECS) CALENDAR YEAR:- 1992

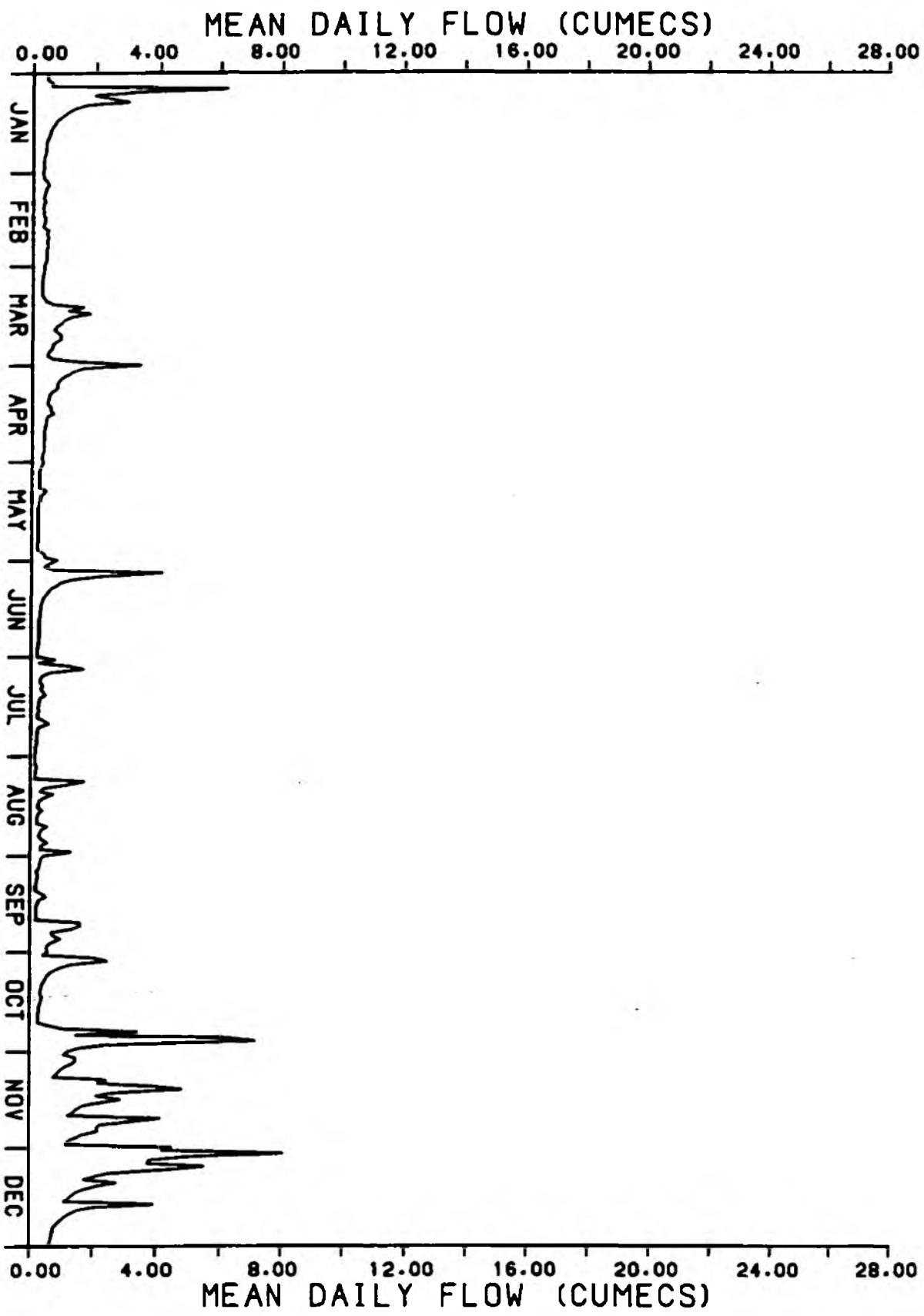
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	31/31	29/29	31/31	30/30	31/31	30/30	31/31	31/31	30/30	31/31	30/30	31/31
CUMEC DAYS	32.61	11.92	24.79	17.92	8.602	17.52	11.55	12.73	14.47	39.14	62.02	69.49
MINIMUM	0.315	0.319	0.295	0.301	0.187	0.182	0.123	0.139	0.176	0.268	0.757	0.642
MAXIMUM	6.240	0.522	3.368	1.635	0.828	4.039	1.666	1.712	1.609	7.143	4.716	8.070
MEAN	1.052	0.411	0.800	0.597	0.277	0.584	0.373	0.411	0.482	1.262	2.067	2.242
MEDIAN	0.549	0.400	0.680	0.482	0.235	0.285	0.256	0.301	0.289	0.521	1.690	1.500

ANNUAL FLOW STATISTICS

TOTAL NUMBER OF DAYS OF RECORD:- 366/366

TOTAL FLOW:-	322.8	CUMEC DAYS	MINIMUM MEAN DAILY FLOW:-	0.123	CUMECs						
MEAN FLOW:-	0.882	CUMECs	MAXIMUM MEAN DAILY FLOW:-	8.070	CUMECs						
MEDIAN FLOW:-	0.441	CUMECs	MAXIMUM INSTANTANEOUS FLOW:-	13.31	CUMECs 28/10						
			SEVEN DAY MINIMUM FLOW:-	0.153	CUMECs 31/7-6/8						
PERCENTAGE OF TIME:-	10	20	30	40	50	60	70	80	90		
FLOW NOT EXCEEDED:-	0.211	0.255	0.315	0.374	0.439	0.561	0.757	1.234	2.122		

RIVER DEARNE
BARNESLEY
1992



NATIONAL RIVERS AUTHORITY : STATION:- 8910806 RIVER DEARNE

BARNSLEY

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 33 OUT OF 33 PERIOD:- 1960 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:- 1.382 CUMECs

MEDIAN FLOW:- 0.730 CUMECs

MODAL FLOW:- 0.313 CUMECs

MINIMUM MEAN DAILY FLOW:- 0.083 CUMECs ON 3/ 8/1990

MAXIMUM MEAN DAILY FLOW:- 35.84 CUMECs ON 28/12/1978

MAXIMUM INSTANTANEOUS FLOW:- 68.88 CUMECs ON 12/ 4/1970 AT 08:30

DRY WEATHER FLOW:- 0.257 CUMECs

MODAL FLOW CALCULATED WITH A 7.1% CLASS INTERVAL

NATIONAL RIVERS AUTHORITY : STATION:- 8910806 RIVER DEARNE

BARNESLEY

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 33 OUT OF 33 PERIOD:- 1960 TO 1992 SEASON:- JAN TO DEC

FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION:- 8910803 RIVER DEARNE ADWICK

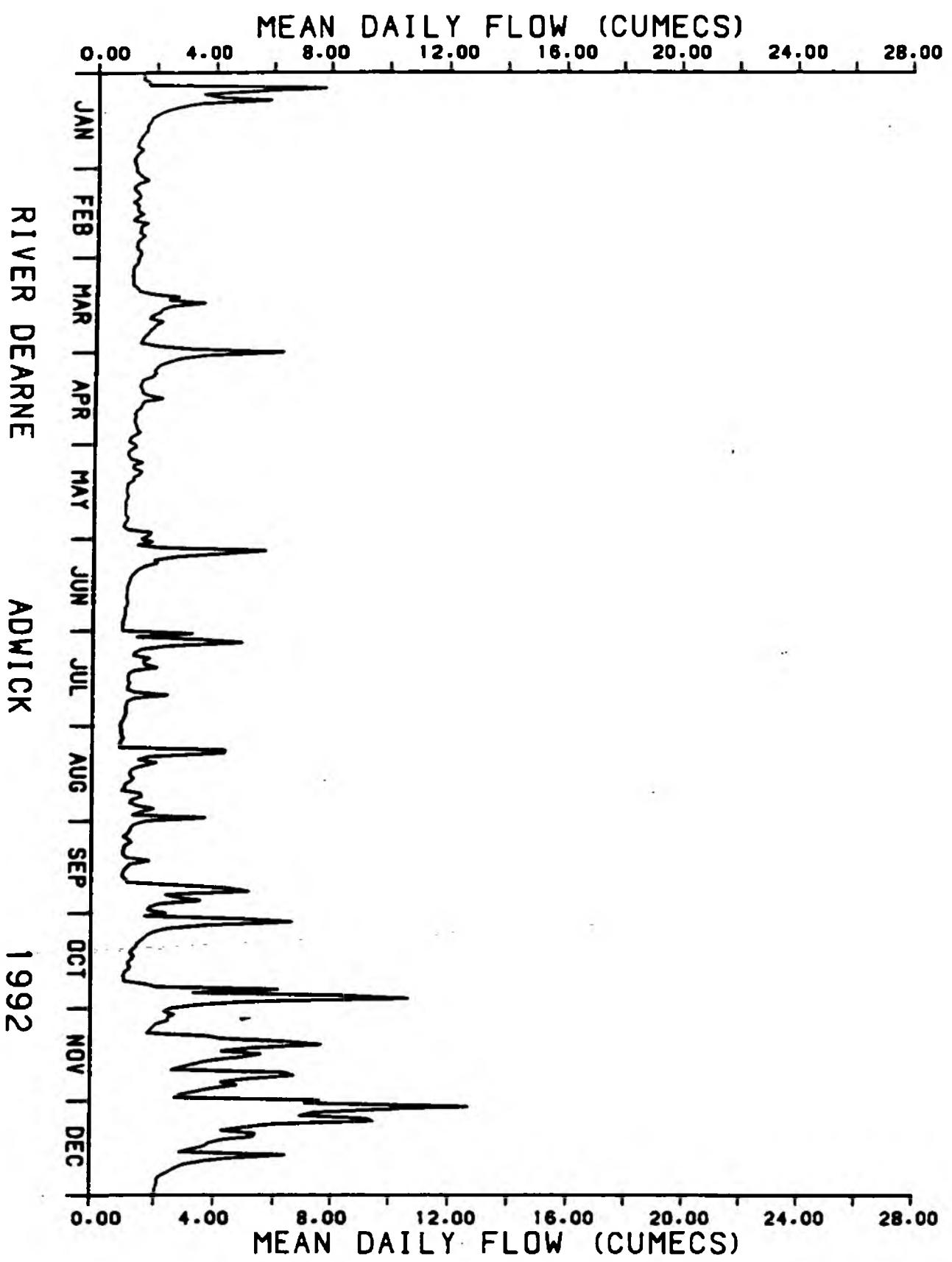
ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMECS) CALENDAR YEAR:- 1992

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	31/31	29/29	31/31	30/30	31/31	30/30	31/31	31/31	30/30	31/31	30/30	31/31
CUMEC DAYS	70.86	40.69	60.88	50.58	36.46	45.15	48.11	47.63	52.25	85.83	121.5	146.8
MINIMUM	1.230	1.204	1.190	1.074	0.876	0.834	0.831	0.825	0.978	1.043	1.755	1.992
MAXIMUM	7.815	1.698	6.365	3.667	1.864	5.792	4.914	4.358	5.167	10.65	7.692	12.70
MEAN	2.286	1.403	1.964	1.686	1.176	1.505	1.552	1.536	1.742	2.769	4.050	4.736
MEDIAN	1.633	1.384	1.730	1.518	1.071	1.029	1.217	1.226	1.172	1.658	3.862	3.852

ANNUAL FLOW STATISTICS

TOTAL NUMBER OF DAYS OF RECORD:- 366/366

TOTAL FLOW:-	806.8	CUMEC DAYS	MINIMUM MEAN DAILY FLOW:-	0.825	CUMECs				
MEAN FLOW:-	2.204	CUMECs	MAXIMUM MEAN DAILY FLOW:-	12.70	CUMECs				
MEDIAN FLOW:-	1.509	CUMECs	MAXIMUM INSTANTANEOUS FLOW:-	16.63	CUMECs 2/12				
			SEVEN DAY MINIMUM FLOW:-	0.866	CUMECs 31/7-6/8				
PERCENTAGE OF TIME:-	10	20	30	40	50	60	70	80	90
FLOW NOT EXCEEDED:-	0.992	1.097	1.241	1.353	1.508	1.730	2.090	2.841	4.558



NATIONAL RIVERS AUTHORITY : STATION:- 8910803 RIVER DEARNE ADWICK

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 17 OUT OF 17 PERIOD:- 1976 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:- 3.359 CUMECMS

MEDIAN FLOW:- 2.236 CUMECMS

MODAL FLOW:- 1.521 CUMECMS

MINIMUM MEAN DAILY FLOW:- 0.568 CUMECMS ON 18/ 8/1976

MAXIMUM MEAN DAILY FLOW:- 53.12 CUMECMS ON 29/12/1978

MAXIMUM INSTANTANEOUS FLOW:- 56.65 CUMECMS ON 29/12/1978 AT 21:00

DRY WEATHER FLOW:- 1.145 CUMECMS

MODAL FLOW CALCULATED WITH A 4.8% CLASS INTERVAL

Current meter gaugings suggest that high flows are being slightly underestimated.

A new rating is being prepared and the high flow record will be reworked.

NATIONAL RIVERS AUTHORITY : STATION:- 8910803 RIVER DEARNE ADWICK

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 17 OUT OF 17 PERIOD:- 1976 TO 1992 SEASON:- JAN TO DEC

'FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION:- 8912708 RIVER DERWENT WEST AYTON

ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMECS) CALENDAR YEAR:- 1992

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	31/31	29/29	31/31	30/30	31/31	30/30	31/31	31/31	30/30	31/31	30/30	31/31
CUMEC DAYS	11.69	13.31	11.65	21.22	8.780	2.710	6.756	1.003	11.82	29.78	33.07	41.26
MINIMUM	0.186	0.171 ¹	0.123	0.000	0.127	0.000	0.001	0.000	0.000	0.509	0.836	0.927
MAXIMUM	0.778	0.715	1.542	1.352	0.657	0.388	0.652	0.228	2.341	1.885	1.973	2.206
MEAN	0.377	0.459	0.376	0.707	0.283	0.090	0.218	0.032	0.394	0.961	1.102	1.331
MEDIAN	0.314	0.410	0.270	0.678	0.221	0.059	0.125	0.000	0.064	0.899	1.068	1.290

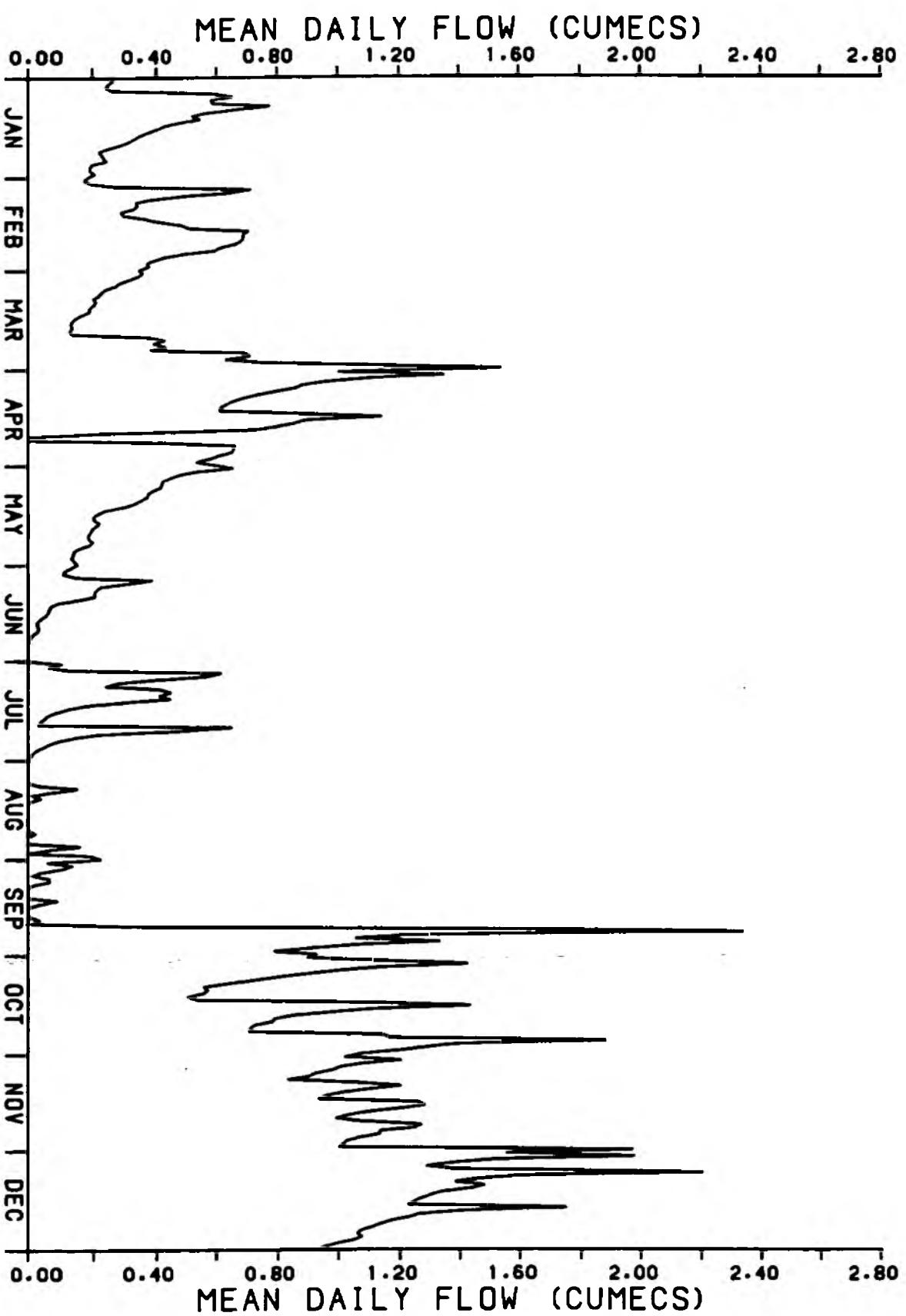
ANNUAL FLOW STATISTICS

TOTAL NUMBER OF DAYS OF RECORD:- 366/366

TOTAL FLOW:-	193.1	CUMEC DAYS	MINIMUM MEAN DAILY FLOW:-	0.000	CUMECs
MEAN FLOW:-	0.527	CUMECs	MAXIMUM MEAN DAILY FLOW:-	2.341	CUMECs
MEDIAN FLOW:-	0.389	CUMECs	MAXIMUM INSTANTANEOUS FLOW:-	2.983	CUMECs 23/9
			SEVEN DAY MINIMUM FLOW:-	-0.000	CUMECs 1-7/8

PERCENTAGE OF TIME:-	10	20	30	40	50	60	70	80	90
FLOW NOT EXCEEDED:-	0.004	0.069	0.186	0.243	0.388	0.573	0.722	1.009	1.204

RIVER DERWENT WEST AYTON
1992



NATIONAL RIVERS AUTHORITY : STATION:- 8912708 RIVER DERWENT WEST AYTON

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 26 OUT OF 26 PERIOD:- 1967 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:- 0.329 CUMECs

MEDIAN FLOW:- 0.280 CUMECs

MODAL FLOW:- 0.008 CUMECs

MINIMUM MEAN DAILY FLOW:- 0.000 CUMECs ON 25/ 6/1976

MAXIMUM MEAN DAILY FLOW:- 2.651 CUMECs ON 8/12/1990

MAXIMUM INSTANTANEOUS FLOW:- 3.029 CUMECs ON 08/12/1990 AT 22:00

DRY WEATHER FLOW:- 0.058 CUMECs

MODAL FLOW CALCULATED WITH A 7.1% CLASS INTERVAL

NATIONAL RIVERS AUTHORITY : STATION:- 8912708 RIVER DERWENT

WEST AYTON

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 26 OUT OF 26 PERIOD:- 1957 TO 1992 SEASON:- JAN TO DEC

'FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION:- 8912807 RIVER DERWENT BUTTERCRAMBE

ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMECS) CALENDAR YEAR:- 1992

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	31/31	29/29	31/31	30/30	31/31	30/30	31/31	31/31	30/30	31/31	30/30	31/31
CUMEC DAYS	297.5	276.5	323.4	743.4	259.1	143.3	150.0	123.8	201.3	383.2	501.3	1019.
MINIMUM	6.458	6.378 ¹	5.975	12.02	5.602	3.694	3.657	3.420	3.653	7.126	9.853	13.87
MAXIMUM	21.76	17.02	54.60	60.11	13.59	6.553	7.378	6.946	23.45	35.56	33.97	72.55
MEAN	9.595	9.536	10.43	24.78	8.357	4.778	4.838	3.993	6.709	12.36	16.71	32.87
MEDIAN	8.339	8.979	7.273	17.16	7.846	4.567	4.578	3.713	4.325	9.803	15.68	27.10

ANNUAL FLOW STATISTICS

TOTAL NUMBER OF DAYS OF RECORD:- 366/366

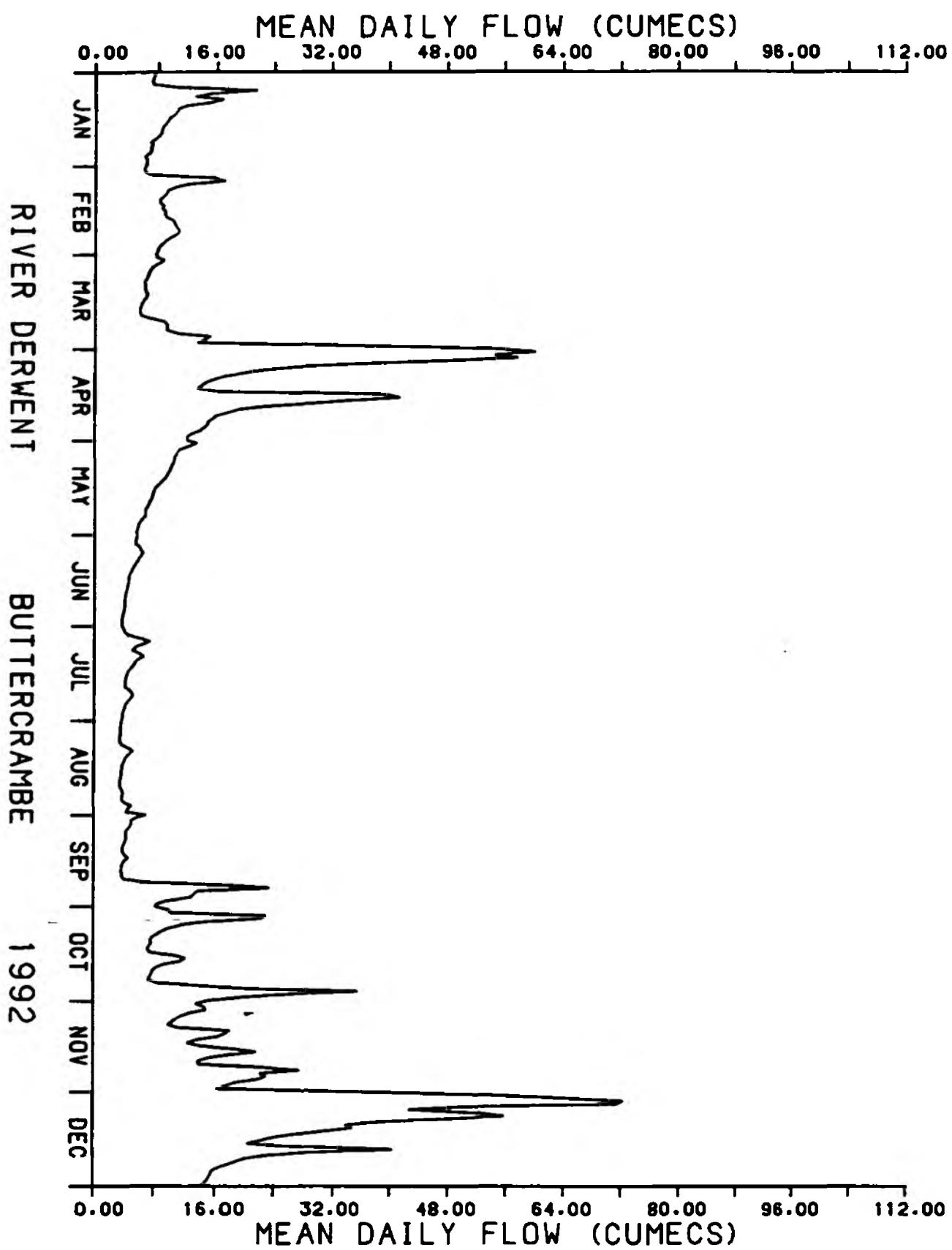
TOTAL FLOW:- 4422. CUMEC DAYS MINIMUM MEAN DAILY FLOW:- 3.420 CUMECs

MEAN FLOW:- 12.08 CUMECs MAXIMUM MEAN DAILY FLOW:- 72.35 CUMECs

MEDIAN FLOW:- 8.183 CUMECs MAXIMUM INSTANTANEOUS FLOW:- 77.73 CUMECs 4/12
SEVEN DAY MINIMUM FLOW:- 3.496 CUMECs 1-7/8

PERCENTAGE OF TIME:- 10 20 30 40 50 60 70 80 90

FLOW NOT EXCEEDED:- 3.897 4.578 6.028 7.123 8.163 9.803 12.42 15.55 22.64



NATIONAL RIVERS AUTHORITY : STATION:- 8912807 RIVER DERWENT

BUTTERCRAMBE

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 19 OUT OF 19 PERIOD:- 1974 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:- 16.29 CUMECs

MEDIAN FLOW:- 11.62 CUMECs

MODAL FLOW:- 6.527 CUMECs

MINIMUM MEAN DAILY FLOW:- 2.697 CUMECs ON 23/ 8/1976

MAXIMUM MEAN DAILY FLOW:- 121.4 CUMECs ON 29/12/1978

MAXIMUM INSTANTANEOUS FLOW:- 124.8 CUMECs ON 05/ 1/1982 AT 11:00

DRY WEATHER FLOW:- 4.868 CUMECs

MODAL FLOW CALCULATED WITH A 2.6% CLASS INTERVAL

NATIONAL RIVERS AUTHORITY : STATION:- 8912807 RIVER DERWENT

SUTTERCRAMBE

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 19 OUT OF 19 PERIOD:- 1974 TO 1992 SEASON:- JAN TO DEC

FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

	0	1	2	3	4	5	6	7	8	9
0	3.056	3.330	3.508	3.701	3.921	4.145	4.304	4.480	4.695	
10	4.908	5.077	5.245	5.428	5.591	5.734	5.892	6.042	6.165	6.301
20	6.427	6.518	6.610	6.706	6.831	6.975	7.152	7.304	7.419	7.560
30	7.684	7.822	7.938	8.089	8.233	8.376	8.545	8.739	8.927	9.106
40	9.249	9.427	9.602	9.792	10.05	10.29	10.55	10.81	11.02	11.25
50	11.62	11.90	12.20	12.53	12.76	13.07	13.35	13.61	13.95	14.20
60	14.59	14.89	15.26	15.54	15.87	16.16	16.51	16.91	17.25	17.64
70	18.07	18.49	18.92	19.46	19.99	20.48	21.02	21.60	22.20	22.75
80	23.37	23.96	24.75	25.45	26.36	27.20	27.96	29.01	30.32	31.78
90	33.09	34.63	36.68	39.18	42.16	45.22	49.11	53.80	60.95	73.01

100 121.4

NATIONAL RIVERS AUTHORITY : STATION:- 8911955 RIVER DIBB GRIMWITH

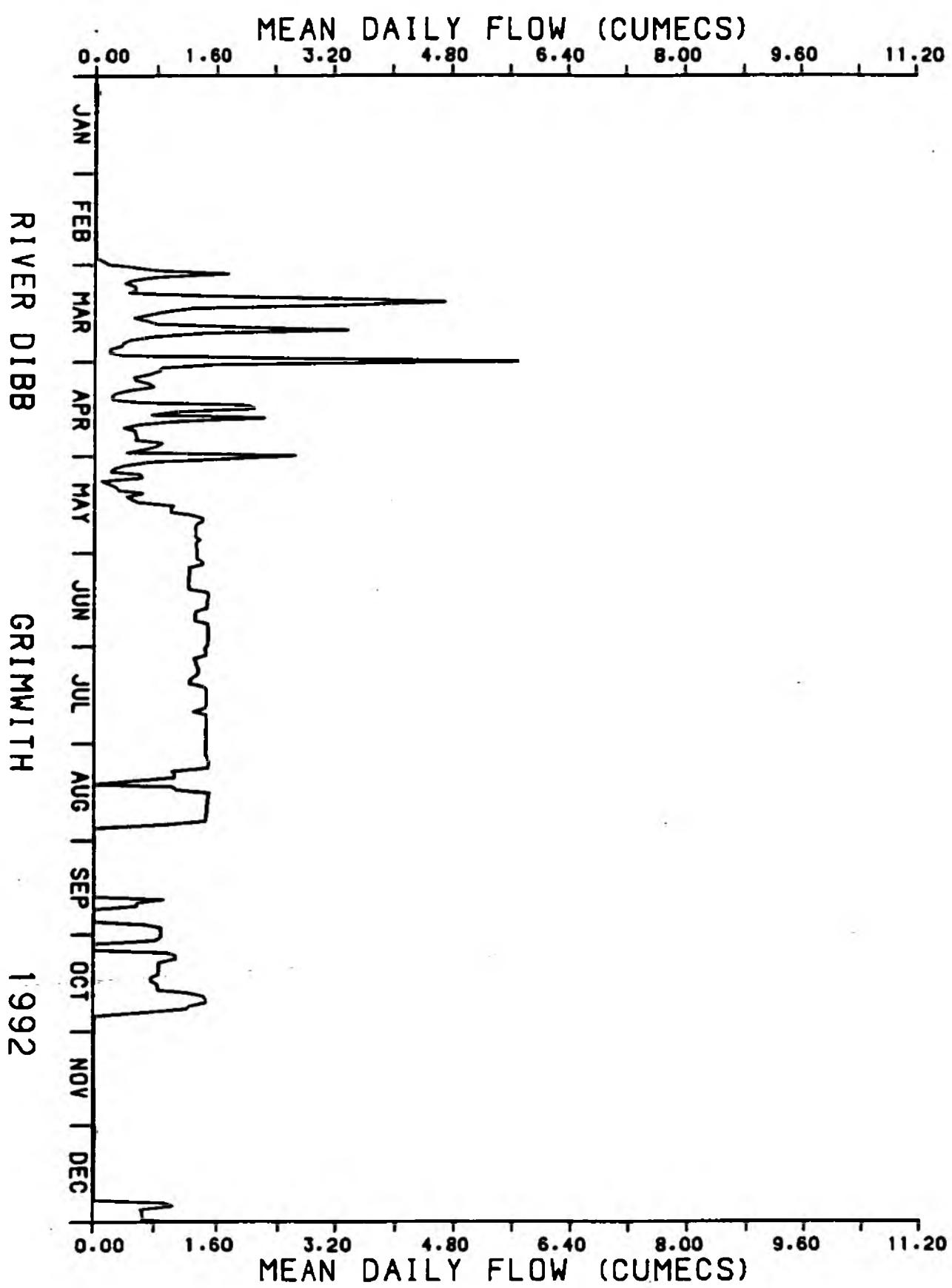
ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMECS) CALENDAR YEAR:- 1992

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	31/31	29/29	31/31	30/30	31/31	30/30	31/31	31/31	30/30	31/31	30/30	31/31
CUMEC DAYS	0.427	0.648	41.12	25.70	27.56	40.83	43.23	32.80	5.576	21.70	0.498	6.059
MINIMUM	0.009	0.009	0.194	0.222	0.093	1.210	1.234	0.007	0.008	0.005	0.011	0.009
MAXIMUM	0.052	0.183	5.715	2.670	1.757	1.475	1.448	1.491	0.886	1.457	0.026	1.045
MEAN	0.014	0.022	1.326	0.857	0.889	1.361	1.395	1.058	0.186	0.700	0.017	0.195
MEDIAN	0.011	0.011	0.765	0.647	0.987	1.391	1.448	1.445	0.011	0.839	0.017	0.024

ANNUAL FLOW STATISTICS

TOTAL NUMBER OF DAYS OF RECORD:- 366/366

TOTAL FLOW:-	246.2	CUMEC DAYS	MINIMUM MEAN DAILY FLOW:-	0.005	CUMECs				
MEAN FLOW:-	0.673	CUMECs	MAXIMUM MEAN DAILY FLOW:-	5.715	CUMECs				
MEDIAN FLOW:-	0.506	CUMECs	MAXIMUM INSTANTANEOUS FLOW:-	14.37	CUMECs 10/3				
			SEVEN DAY MINIMUM FLOW:-	0.009	CUMECs 4-10/9				
PERCENTAGE OF TIME:-	10	20	30	40	50	60	70	80	90
FLOW NOT EXCEEDED:-	0.010	0.012	0.017	0.038	0.505	0.839	1.217	1.392	1.457



NATIONAL RIVERS AUTHORITY : STATION:- 8911955 RIVER DIBB GRIMWITH

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 12 OUT OF 12 PERIOD:- 1981 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:- 0.735 CUMECs

MEDIAN FLOW:- 0.379 CUMECs

MODAL FLOW:- 0.008 CUMECs

MINIMUM MEAN DAILY FLOW:- 0.000 CUMECs ON 20/ 8/1983

MAXIMUM MEAN DAILY FLOW:- 16.95 CUMECs ON 23/ 2/1991

MAXIMUM INSTANTANEOUS FLOW:- 22.67 CUMECs ON 23/ 2/1991 AT 15:15

DRY WEATHER FLOW:- 0.018 CUMECs

MODAL FLOW CALCULATED WITH A 8.3% CLASS INTERVAL

NATIONAL RIVERS AUTHORITY : STATION:- 8911955 RIVER DIBB

GRIMWITH

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 12 OUT OF 12 PERIOD:- 1981 TO 1992 SEASON:- JAN TO DEC

'FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION:- 8910103 RIVER DOE LEA STAVELEY

ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMECS) CALENDAR YEAR:- 1992

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	31/31	29/29	31/31	30/30	31/31	30/30	31/31	31/31	30/30	31/31	30/30	31/31
CUMEC DAYS	12.70	6.742	9.987	9.362	7.798	9.433	10.84	9.750	14.10	18.97	37.28	45.06
MINIMUM	0.225	0.205	0.206	0.216	0.171	0.165	0.158	0.157	0.154	0.275	0.345	0.465
MAXIMUM	1.592	0.262	0.930	0.474	0.859	1.206	1.140	0.791	2.808	2.225	3.975	7.606
MEAN	0.410	0.232	0.322	0.312	0.252	0.314	0.350	0.315	0.470	0.612	1.243	1.475
MEDIAN	0.303	0.228	0.275	0.308	0.213	0.220	0.266	0.249	0.215	0.380	1.021	0.882

ANNUAL FLOW STATISTICS

TOTAL NUMBER OF DAYS OF RECORD:- 366/366

TOTAL FLOW:- 192.6 CUMEC DAYS MINIMUM MEAN DAILY FLOW:- 0.154 CUMECs

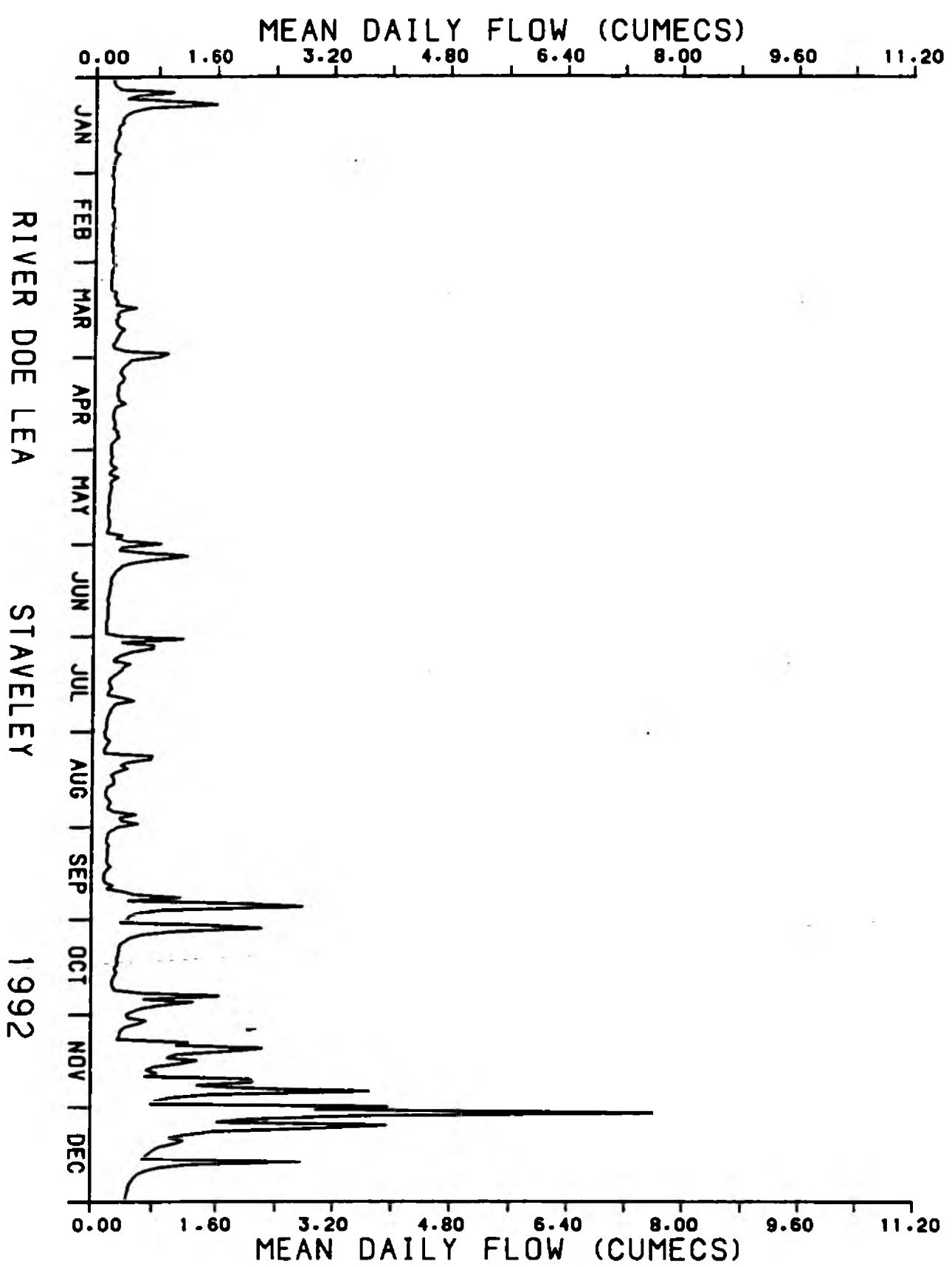
MEAN FLOW:- 0.526 CUMECs MAXIMUM MEAN DAILY FLOW:- 7.606 CUMECs

MEDIAN FLOW:- 0.296 CUMECs MAXIMUM INSTANTANEOUS FLOW:- 9.788 CUMECs 2/12

SEVEN DAY MINIMUM FLOW:- 0.176 CUMECs 27/7-2/8

PERCENTAGE OF TIME:- 10 20 30 40 50 60 70 80 90

FLOW NOT EXCEEDED:- 0.196 0.214 0.232 0.260 0.296 0.339 0.414 0.621 1.090



NATIONAL RIVERS] AUTHORITY : STATION:- 8910103 RIVER DOE LEA

STAVELEY

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 22 OUT OF 22 PERIOD:- 1971 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:- 0.679 CUMECs

MEDIAN FLOW:- 0.380 CUMECs

MODAL FLOW:- 0.254 CUMECs

MINIMUM MEAN DAILY FLOW:- 0.056 CUMECs ON 27/ 8/1976

MAXIMUM MEAN DAILY FLOW:- 11.52 CUMECs ON 8/ 4/1979

MAXIMUM INSTANTANEOUS FLOW:- 13.69 CUMECs ON 01/ 6/1983 AT 11:00

DRY WEATHER FLOW:- 0.180 CUMECs

MODAL FLOW CALCULATED WITH A 5.6% CLASS INTERVAL

The measuring flume has been tilted by subsidence.

It is hoped that it may be possible to adjust the record to take account of this.

NATIONAL RIVERS AUTHORITY : STATION:- 8910103 RIVER DOE LEA STAVELEY

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 22 OUT OF 22 PERIOD:- 1971 TO 1992 SEASON:- JAN TO DEC

'FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION:- 8910605 RIVER DON HADFIELDS

ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMECS) CALENDAR YEAR:- 1992

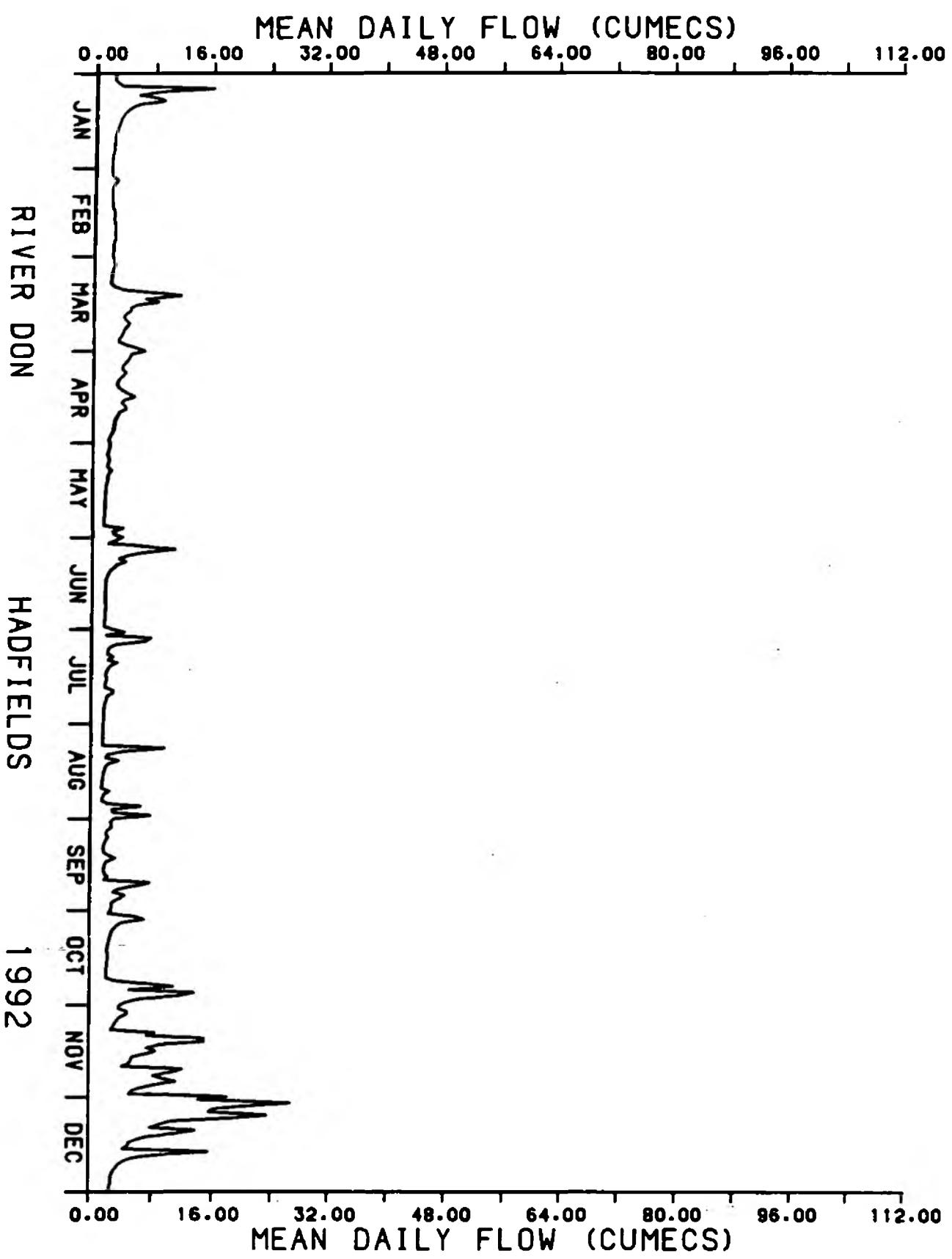
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	31/31	29/29	31/31	30/30	31/31	30/30	31/31	31/31	30/30	31/31	30/30	31/31
CUMEC DAYS	123.4	65.28	128.8	99.87	62.71	85.54	80.51	82.54	86.43	133.8	226.1	284.7
MINIMUM	1.954	1.909	1.879	1.947	1.533	1.664	1.703	1.467	1.785	2.256	2.974	2.713
MAXIMUM	16.03	2.891	11.52	5.371	3.823	10.85	7.773	9.759	7.575	13.67	18.24	27.01
MEAN	3.981	2.251	4.155	3.329	2.023	2.851	2.597	2.663	2.881	4.517	7.537	9.183
MEDIAN	2.761	2.197	3.670	3.243	1.892	1.892	2.144	1.794	2.488	2.846	6.966	6.299

ANNUAL FLOW STATISTICS

TOTAL NUMBER OF DAYS OF RECORD:- 366/366

TOTAL FLOW:-	1460. CUMEC DAYS	MINIMUM MEAN DAILY FLOW:-	1.467 CUMECs
MEAN FLOW:-	3.988 CUMECs	MAXIMUM MEAN DAILY FLOW:-	27.01 CUMECs
MEDIAN FLOW:-	2.638 CUMECs	MAXIMUM INSTANTANEOUS FLOW:-	38.70 CUMECs 2/12
		SEVEN DAY MINIMUM FLOW:-	1.595 CUMECs 21-27/5

PERCENTAGE OF TIME:-	10	20	30	40	50	60	70	80	90
FLOW NOT EXCEEDED:-	1.768	1.952	2.144	2.350	2.637	3.053	3.714	4.967	7.861



NATIONAL RIVERS AUTHORITY : STATION:- 8910605 RIVER DON

HADFIELDS

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 27 OUT OF 27 PERIOD:- 1966 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:- 5.317 CUMECs

MEDIAN FLOW:- 3.087 CUMECs

MODAL FLOW:- 2.016 CUMECs

MINIMUM MEAN DAILY FLOW:- 0.683 CUMECs ON 3/ 9/1976

MAXIMUM MEAN DAILY FLOW:- 132.9 CUMECs ON 22/ 6/1982

MAXIMUM INSTANTANEOUS FLOW:- 294.3 CUMECs ON 22/ 6/1982 AT 23:00

DRY WEATHER FLOW:- 1.558 CUMECs

MODAL FLOW CALCULATED WITH A 7.7% CLASS INTERVAL

This station has been recalibrated.

The new rating applies from the start of the record but, to date, only levels back to January 1982 have been reprocessed.

Reprocessing of the record will significantly reduce low flows.

Long period analyses are available for the period 1982 to 1991.

NATIONAL RIVERS AUTHORITY : STATION:- 8910605 RIVER DON

HADFIELDS

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 27 OUT OF 27 PERIOD:- 1966 TO 1992 SEASON:- JAN TO DEC

FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION:- 8910908 RIVER DON DONCASTER

ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMECS) CALENDAR YEAR:- 1992

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	31/31	29/29	31/31	30/30	31/31	30/30	31/31	31/31	30/30	31/31	30/30	31/31
CUMEC DAYS	377.7	229.1	363.2	283.8	209.7	259.4	264.0	277.7	295.8	441.4	741.2	917.9
MINIMUM	6.861	6.806 ¹	6.723	6.828	4.891	4.706	4.648	4.367	5.449	6.071	9.220	9.859
MAXIMUM	37.03	9.768	24.29	15.65	12.12	33.05	25.79	24.19	27.13	43.23	54.79	90.29
MEAN	12.18	7.898	11.72	9.460	6.765	8.645	8.515	8.957	9.858	14.24	24.71	29.61
MEDIAN	8.710	7.848	10.55	8.759	6.266	5.669	6.722	6.693	7.122	9.109	20.97	19.97

ANNUAL FLOW STATISTICS

TOTAL NUMBER OF DAYS OF RECORD:- 366/366

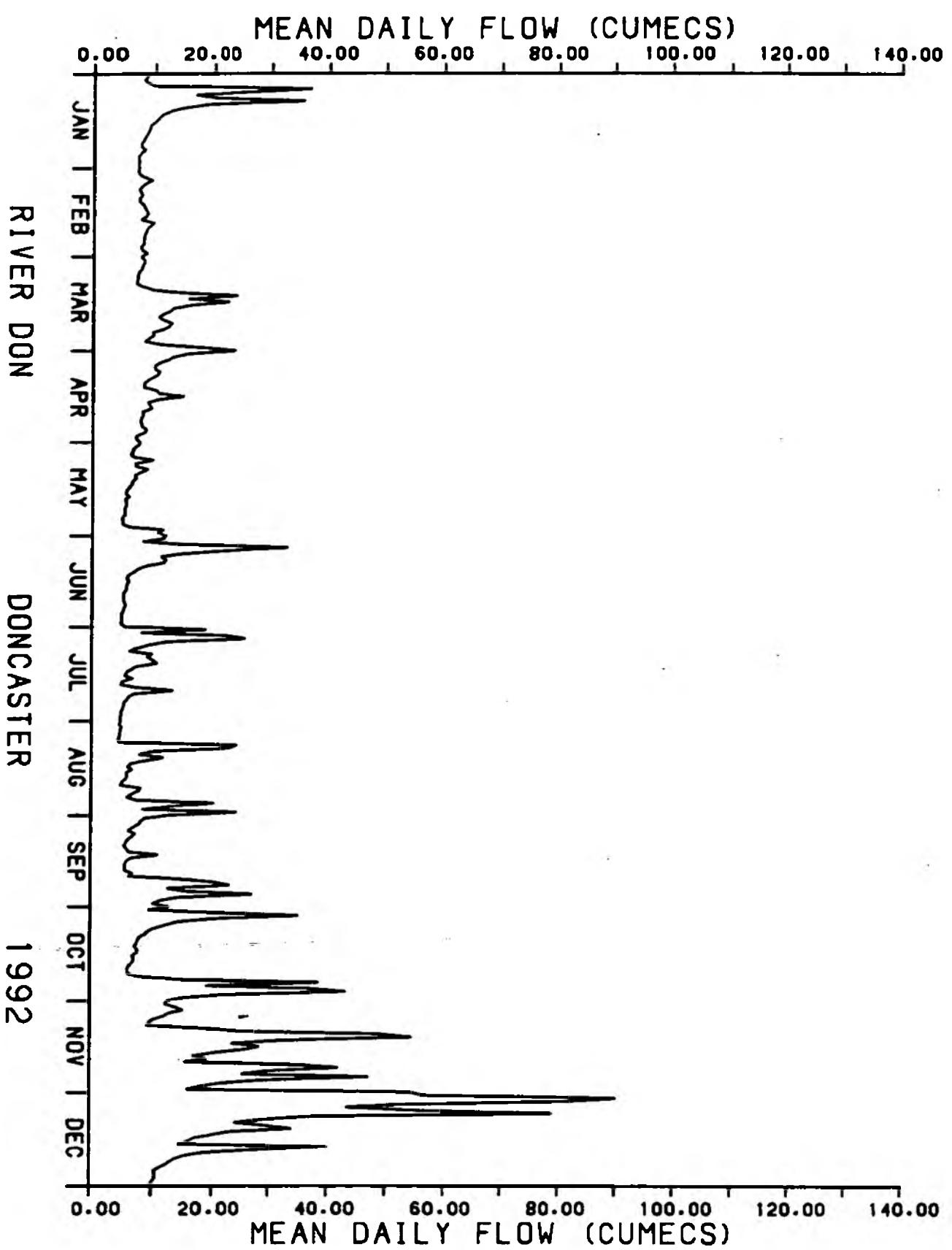
TOTAL FLOW:- 4661. CUMEC DAYS MINIMUM MEAN DAILY FLOW:- 4.367 CUMECs

MEAN FLOW:- 12.73 CUMECs MAXIMUM MEAN DAILY FLOW:- 90.29 CUMECs

MEDIAN FLOW:- 8.443 CUMECs MAXIMUM INSTANTANEOUS FLOW:- 116.4 CUMECs 2/12
SEVEN DAY MINIMUM FLOW:- 4.684 CUMECs 1-7/8

PERCENTAGE OF TIME:- 10 20 30 40 50 60 70 80 90

FLOW NOT EXCEEDED:- 5.464 6.243 7.043 7.723 8.428 9.801 11.84 15.65 24.19



NATIONAL RIVERS AUTHORITY : STATION:- 8910908 RIVER DON

DONCASTER

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 31 OUT OF 33 PERIOD:- 1960 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:- 16.35 CUMECs

MEDIAN FLOW:- 10.25 CUMECs

MODAL FLOW:- 6.114 CUMECs

MINIMUM MEAN DAILY FLOW:- 3.145 CUMECs ON 20/ 6/1960

MAXIMUM MEAN DAILY FLOW:- 188.7 CUMECs ON 23/ 6/1982

MAXIMUM INSTANTANEOUS FLOW:- 200.5 CUMECs ON 23/ 6/1982 AT 17:15

DRY WEATHER FLOW:- 5.280 CUMECs

MODAL FLOW CALCULATED WITH A 2.7% CLASS INTERVAL

During 1976 works at the bridge downstream of the station permanently affected the rating.

The station has been recalibrated and flow records processed from January 1978.

NATIONAL RIVERS AUTHORITY : STATION:- 8910908 RIVER DON

DONCASTER

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 31 OUT OF 33 PERIOD:- 1960 TO 1992 SEASON:- JAN TO DEC

'FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION:- 8912560 RIVER DOVE KIRKBY MILLS

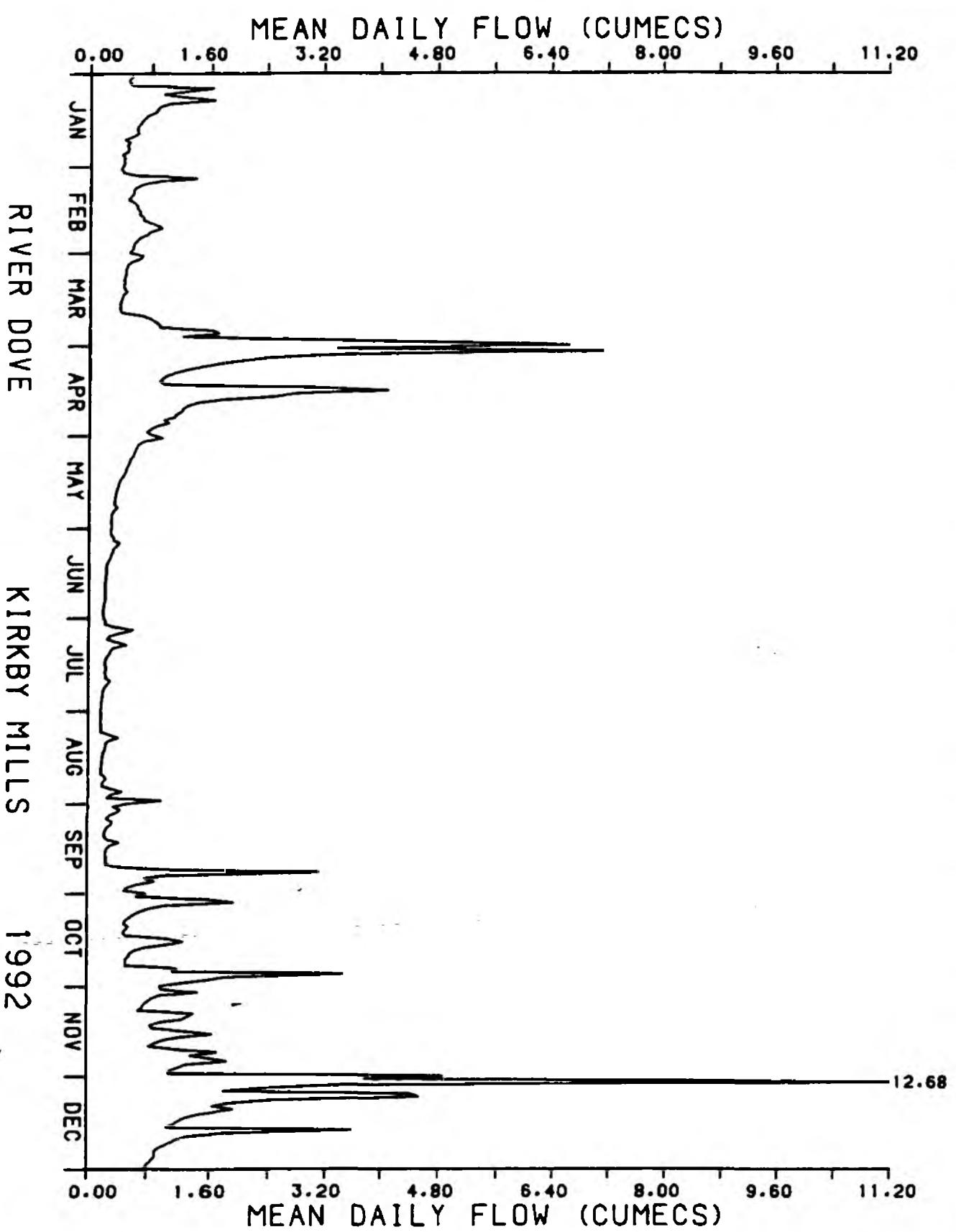
ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMECS) CALENDAR YEAR:- 1992

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	31/31	29/29	31/31	30/30	31/31	30/30	31/31	31/31	30/30	31/31	30/30	31/31
CUMEC DAYS	22.81	19.84	32.88	54.94	14.29	7.703	8.332	8.047	15.45	29.91	38.38	65.57
MINIMUM	0.428	0.418 ¹	0.408	0.767	0.296	0.195	0.168	0.167	0.222	0.478	0.687	0.763
MAXIMUM	1.659	1.415	6.666	7.134	0.977	0.419	0.613	0.991	3.122	3.466	4.877	12.68
MEAN	0.736	0.684	1.061	1.831	0.461	0.257	0.269	0.260	0.515	0.965	1.279	2.115
MEDIAN	0.627	0.636	0.509	1.244	0.400	0.232	0.231	0.194	0.326	0.716	1.164	1.348

ANNUAL FLOW STATISTICS

TOTAL NUMBER OF DAYS OF RECORD:- 366/366

TOTAL FLOW:-	318.1	CUMEC DAYS	MINIMUM MEAN DAILY FLOW:-	0.167	CUMECs				
MEAN FLOW:-	0.869	CUMECs	MAXIMUM MEAN DAILY FLOW:-	12.68	CUMECs				
MEDIAN FLOW:-	0.570	CUMECs	MAXIMUM INSTANTANEOUS FLOW:-	26.95	CUMECs 2/12				
			SEVEN DAY MINIMUM FLOW:-	0.170	CUMECs 29/7-4/8				
PERCENTAGE OF TIME:-	10	20	30	40	50	60	70	80	90
FLOW NOT EXCEEDED:-	0.219	0.260	0.358	0.470	0.569	0.709	0.906	1.127	1.629



NATIONAL RIVERS AUTHORITY : STATION:- 8912560 RIVER DOVE

KIRKBY MILLS

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 21 OUT OF 21 PERIOD:- 1972 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:- 1.061 CUMECs

MEDIAN FLOW:- 0.737 CUMECs

MODAL FLOW:- 0.403 CUMECs

MINIMUM MEAN DAILY FLOW:- 0.133 CUMECs ON 26/ 8/1976

MAXIMUM MEAN DAILY FLOW:- 26.45 CUMECs ON 11/ 9/1976

MAXIMUM INSTANTANEOUS FLOW:- 56.38 CUMECs ON 12/ 9/1976 AT 09:00

DRY WEATHER FLOW:- 0.243 CUMECs

MODAL FLOW CALCULATED WITH A 7.1% CLASS INTERVAL

NATIONAL RIVERS AUTHORITY : STATION:- 8912560 RIVER DOVE

KIRKBY MILLS

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 21 OUT OF 21 PERIOD:- 1972 TO 1992 SEASON:- JAN TO DEC

'FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION:- 8911525 EASTBURN BECK CROSSHILLS

ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMECS) CALENDAR YEAR:- 1992

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	31/31	29/29	31/31	30/30	31/31	30/30	31/31	31/31	30/30	31/31	30/30	31/31
CUMEC DAYS	40.60	25.28	46.67	21.49	10.21	3.725	3.865	9.793	15.18	28.56	53.85	50.33
MINIMUM	0.203	0.206	0.441	0.289	0.133	0.065	0.062	0.060	0.206	0.185	0.634	0.330
MAXIMUM	18.68	4.438	5.512	2.453	0.968	0.510	0.365	3.592	1.224	5.275	6.752	6.946
MEAN	1.310	0.872	1.506	0.716	0.329	0.124	0.125	0.316	0.506	0.921	1.795	1.023
MEDIAN	0.459	0.635	1.139	0.527	0.214	0.090	0.089	0.108	0.375	0.367	1.378	0.948

ANNUAL FLOW STATISTICS

TOTAL NUMBER OF DAYS OF RECORD:- 366/366

TOTAL FLOW:- 309.6 CUMEC DAYS MINIMUM MEAN DAILY FLOW:- 0.060 CUMECs

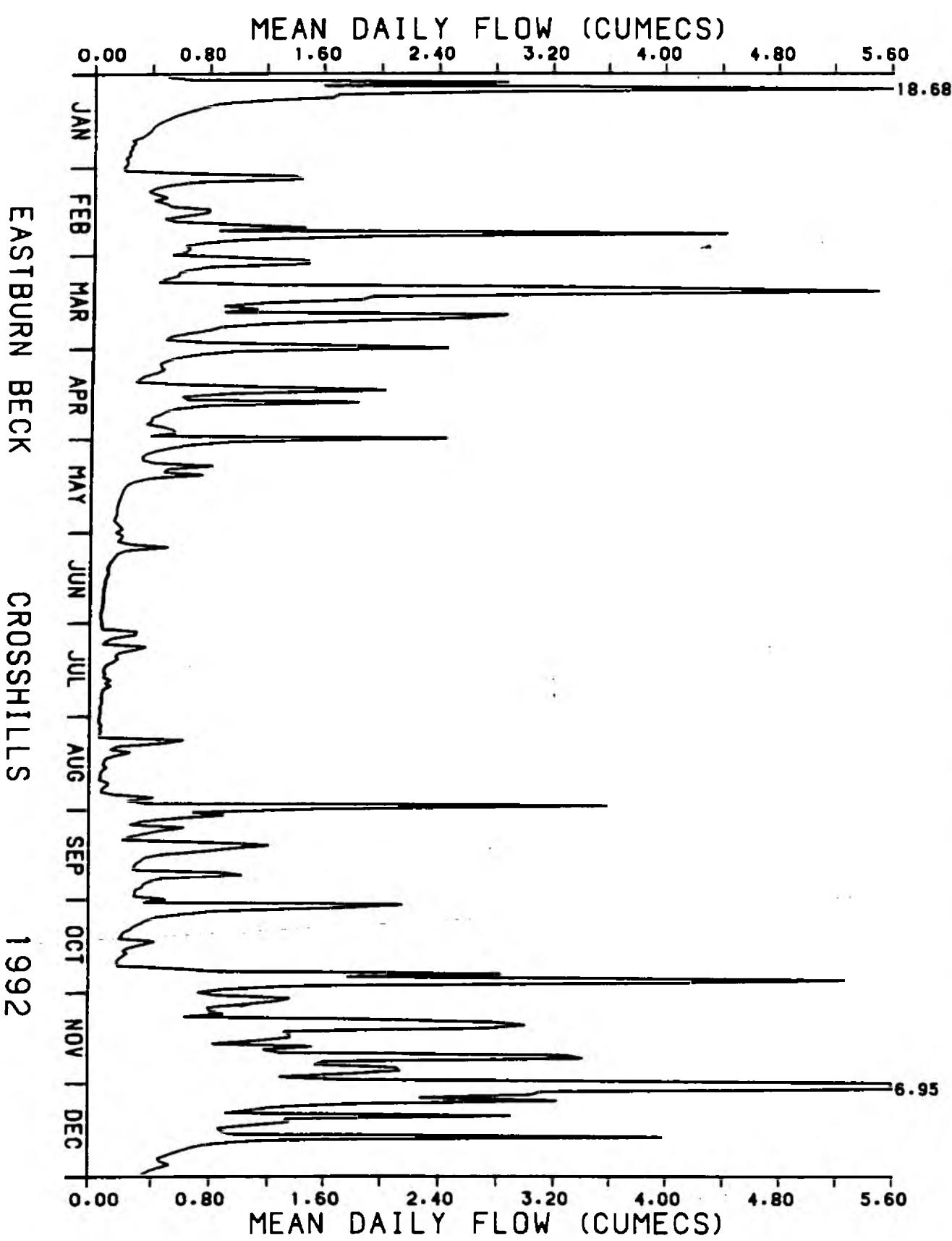
MEAN FLOW:- 0.846 CUMECs MAXIMUM MEAN DAILY FLOW:- 18.68 CUMECs

MEDIAN FLOW:- 0.463 CUMECs MAXIMUM INSTANTANEOUS FLOW:- 41.42 CUMECs 5/1

SEVEN DAY MINIMUM FLOW:- 0.066 CUMECs 27/7-2/8

PERCENTAGE OF TIME:- 10 20 30 40 50 60 70 80 90

FLOW NOT EXCEEDED:- 0.084 0.153 0.236 0.344 0.460 0.586 0.801 1.183 1.851



NATIONAL RIVERS AUTHORITY : STATION:- 8911525 EASTBURN BECK

CROSSHILLS

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 5 OUT OF 5 PERIOD:- 1988 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:- 0.801 CUMECMS

MEDIAN FLOW:- 0.356 CUMECMS

MODAL FLOW:- 0.079 CUMECMS

MINIMUM MEAN DAILY FLOW:- 0.048 CUMECMS ON 11/ 9/1991

MAXIMUM MEAN DAILY FLOW:- 18.68 CUMECMS ON 5/ 1/1992

MAXIMUM INSTANTANEOUS FLOW:- 41.42 CUMECMS ON 05/ 1/1992 AT 13:45

DRY WEATHER FLOW:- 0.061 CUMECMS

MODAL FLOW CALCULATED WITH A 7.1% CLASS INTERVAL

NATIONAL RIVERS AUTHORITY : STATION:- 8911525 EASTBURN BECK

CROSSHILLS

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 5 OUT OF 5 PERIOD:- 1988 TO 1992 SEASON:- JAN TO DEC

'FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION:- 8911530 ELLER BECK SKIPTON

ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMEC(S)) CALENDAR YEAR:- 1992

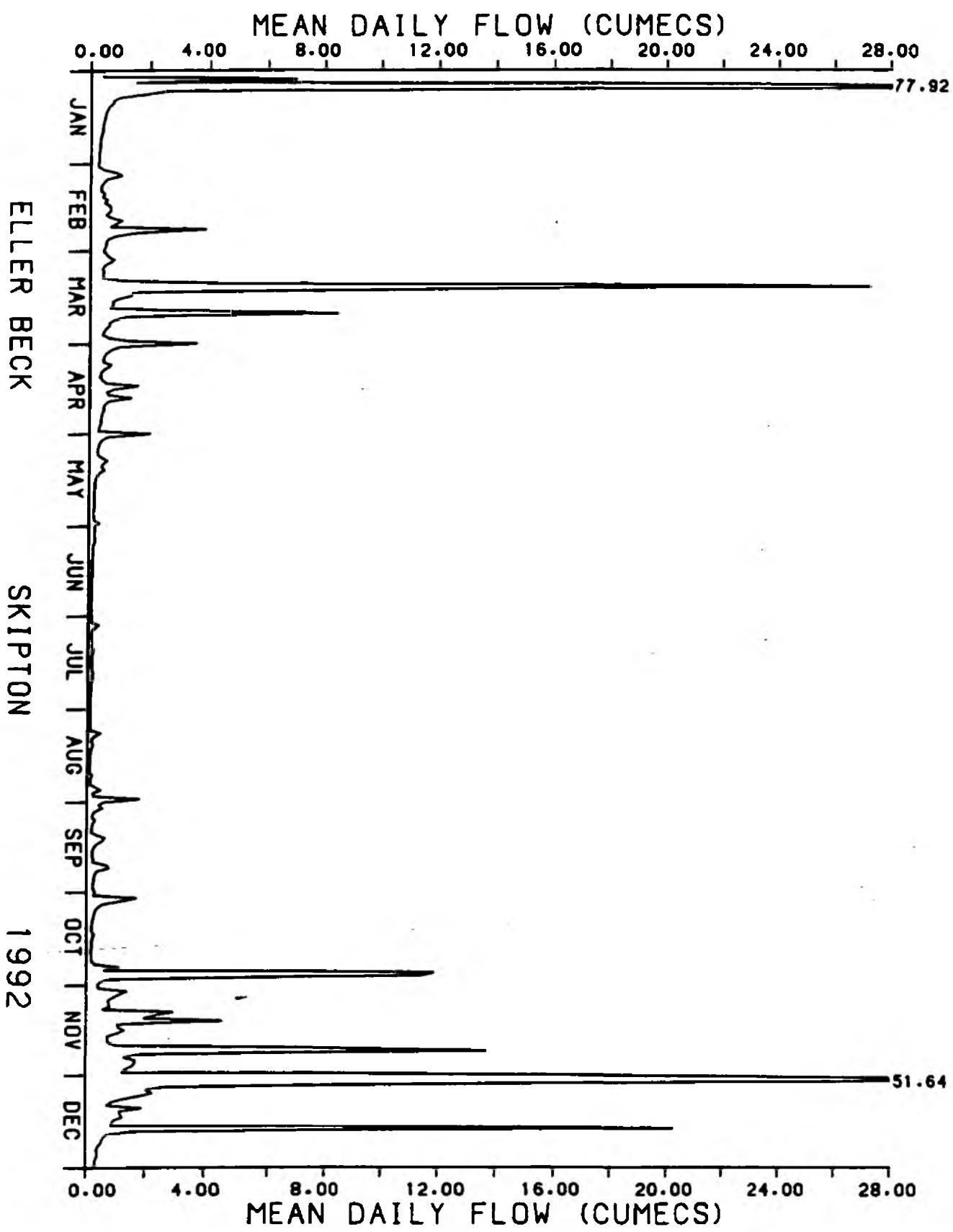
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	31/31	29/29	31/31	30/30	31/31	30/30	31/31	31/31	30/30	31/31	30/30	31/31
CUMEC DAYS	149.0	21.43	76.63	19.09	8.941	4.039	4.141	6.603	9.070	34.44	74.28	143.5
MINIMUM	0.249	0.249	0.407	0.290	0.148	0.094	0.091	0.078	0.145	0.154	0.448	0.251
MAXIMUM	77.92	3.807	27.30	2.062	0.634	0.229	0.367	1.784	0.761	11.88	16.17	51.64
MEAN	4.806	0.739	2.472	0.636	0.288	0.135	0.134	0.213	0.302	1.111	2.476	4.628
MEDIAN	0.427	0.568	0.753	0.491	0.231	0.120	0.117	0.100	0.239	0.247	1.268	0.888

ANNUAL FLOW STATISTICS

TOTAL NUMBER OF DAYS OF RECORD:- 366/366

TOTAL FLOW:-	551.1	CUMEC DAYS	MINIMUM MEAN DAILY FLOW:-	0.078	CUMEC(S)
MEAN FLOW:-	1.506	CUMEC(S)	MAXIMUM MEAN DAILY FLOW:-	77.92	CUMEC(S)
MEDIAN FLOW:-	0.379	CUMEC(S)	MAXIMUM INSTANTANEOUS FLOW:-	113.0	CUMEC(S) 5/1
			SEVEN DAY MINIMUM FLOW:-	0.084	CUMEC(S) 15-21/8

PERCENTAGE OF TIME:-	10	20	30	40	50	60	70	80	90
FLOW NOT EXCEEDED:-	0.111	0.154	0.194	0.278	0.377	0.466	0.623	0.875	1.596



NATIONAL RIVERS AUTHORITY : STATION:- 8911530 ELLER BECK

SKIPTON

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 11 OUT OF 11 PERIOD:- 1982 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:- 1.556 CUMECs

MEDIAN FLOW:- 0.361 CUMECs

MODAL FLOW:- 0.112 CUMECs

MINIMUM MEAN DAILY FLOW:- 0.029 CUMECs ON 9/ 7/1984

MAXIMUM MEAN DAILY FLOW:- 85.42 CUMECs ON 23/ 2/1991

MAXIMUM INSTANTANEOUS FLOW:- 113.0 CUMECs ON 05/ 1/1992 AT 20:30

DRY WEATHER FLOW:- 0.092 CUMECs

MODAL FLOW CALCULATED WITH A 6.3% CLASS INTERVAL

The high flow record is suspect.

This weir is subject to drowning caused by backing up from the River Aire.

A downstream chart record is available.

NATIONAL RIVERS AUTHORITY : STATION:- 8911530 ELLER BECK

SKIPTON

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 11 OUT OF 11 PERIOD:- 1982 TO 1992 SEASON:- JAN TO DEC

FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION:- 8913185 ELMSWELL BECK LITTLE DRIFFIELD

ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMECS) CALENDAR YEAR:- 1992

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	31/31	29/29	31/31	30/30	31/31	30/30	31/31	31/31	30/30	31/31	30/30	31/31
CUMEC DAYS	0.000	0.000	0.000	0.757	3.424	2.204	0.977	0.323	0.085	0.269	2.892	36.07
MINIMUM	0.000	0.000	0.000	0.000	0.087	0.044	0.019	0.005	0.000	0.003	0.020	0.345
MAXIMUM	0.000	0.000	0.000	0.084	0.124	0.102	0.046	0.019	0.006	0.018	0.323	1.447
MEAN	0.000	0.000	0.000	0.025	0.110	0.073	0.032	0.010	0.003	0.009	0.096	1.164
MEDIAN	0.000	0.000	0.000	0.018	0.111	0.080	0.030	0.010	0.003	0.007	0.066	1.356

ANNUAL FLOW STATISTICS

TOTAL NUMBER OF DAYS OF RECORD:- 366/366

TOTAL FLOW:- 47.00 CUMEC DAYS MINIMUM MEAN DAILY FLOW:- 0.000 CUMECs

MEAN FLOW:- 0.128 CUMECs MAXIMUM MEAN DAILY FLOW:- 1.447 CUMECs

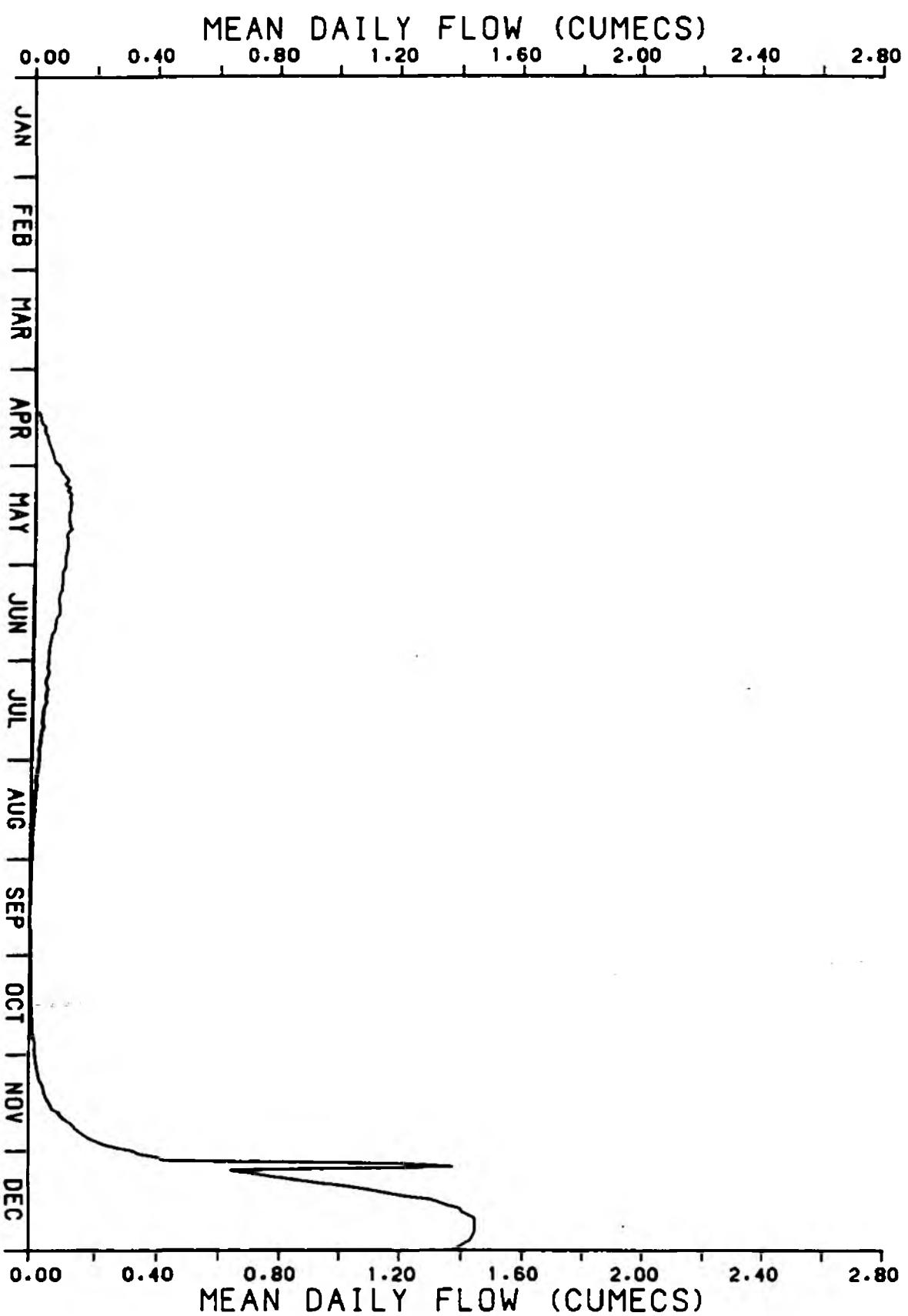
MEDIAN FLOW:- 0.014 CUMECs MAXIMUM INSTANTANEOUS FLOW:- 1.447 CUMECs 21/12

SEVEN DAY MINIMUM FLOW:- 0.000 CUMECs Often
Jan → April

PERCENTAGE OF TIME:- 10 20 30 40 50 60 70 80 90

FLOW NOT EXCEEDED:- 0.000 0.000 0.002 0.006 0.013 0.029 0.051 0.094 0.149

ELMSWELL BECK
LITTLE DRIFFIELD 1992



NATIONAL RIVERS AUTHORITY : STATION:- 8913185 ELMSWELL BECK LITTLE DRIFFIELD

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 13 OUT OF 13 PERIOD:- 1980 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:- 0.518 CUMECs
MEDIAN FLOW:- 0.238 CUMECs
MODAL FLOW:- 0.004 CUMECs
MINIMUM MEAN DAILY FLOW:- 0.000 CUMECs ON 24/10/1989
MAXIMUM MEAN DAILY FLOW:- 4.001 CUMECs ON 20/ 5/1981
MAXIMUM INSTANTANEOUS FLOW:- 4.130 CUMECs ON 20/ 5/1981 AT 23:00
DRY WEATHER FLOW:- 0.022 CUMECs

MODAL FLOW CALCULATED WITH A 8.3% CLASS INTERVAL

This weir is sometimes subject to drowning caused by weed growth.

A downstream chart record is available and will enable the periods of drowning to be identified.

NATIONAL RIVERS AUTHORITY : STATION:- 8913185 ELMSWELL BECK

LITTLE DRIFFIELD

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 13 OUT OF 13 PERIOD:- 1980 TO 1992 SEASON:- JAN TO DEC

'FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION:- 8912903 RIVER ESK

SLEIGHTS

ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMECS) CALENDAR YEAR:- 1992

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	31/31	29/29	31/31	30/30	31/31	30/30	31/31	31/31	30/30	31/31	30/30	31/31
CUMEC DAYS	106.8	86.23	161.2	268.4	39.62	22.45	33.46	21.39	113.3	181.7	195.3	365.6
MINIMUM	1.476	1.500	1.180	2.185	0.804	0.504	0.453	0.417	0.488	1.562	2.467	2.429
MAXIMUM	12.06	8.256	56.22	71.24	3.036	1.788	6.322	2.204	48.04	31.09	43.41	75.74
MEAN	3.445	2.973	5.199	8.946	1.278	0.748	1.079	0.690	3.777	5.860	6.510	11.79
MEDIAN	2.323	2.404	1.554	3.449	1.051	0.630	0.659	0.521	0.840	2.949	4.501	6.107

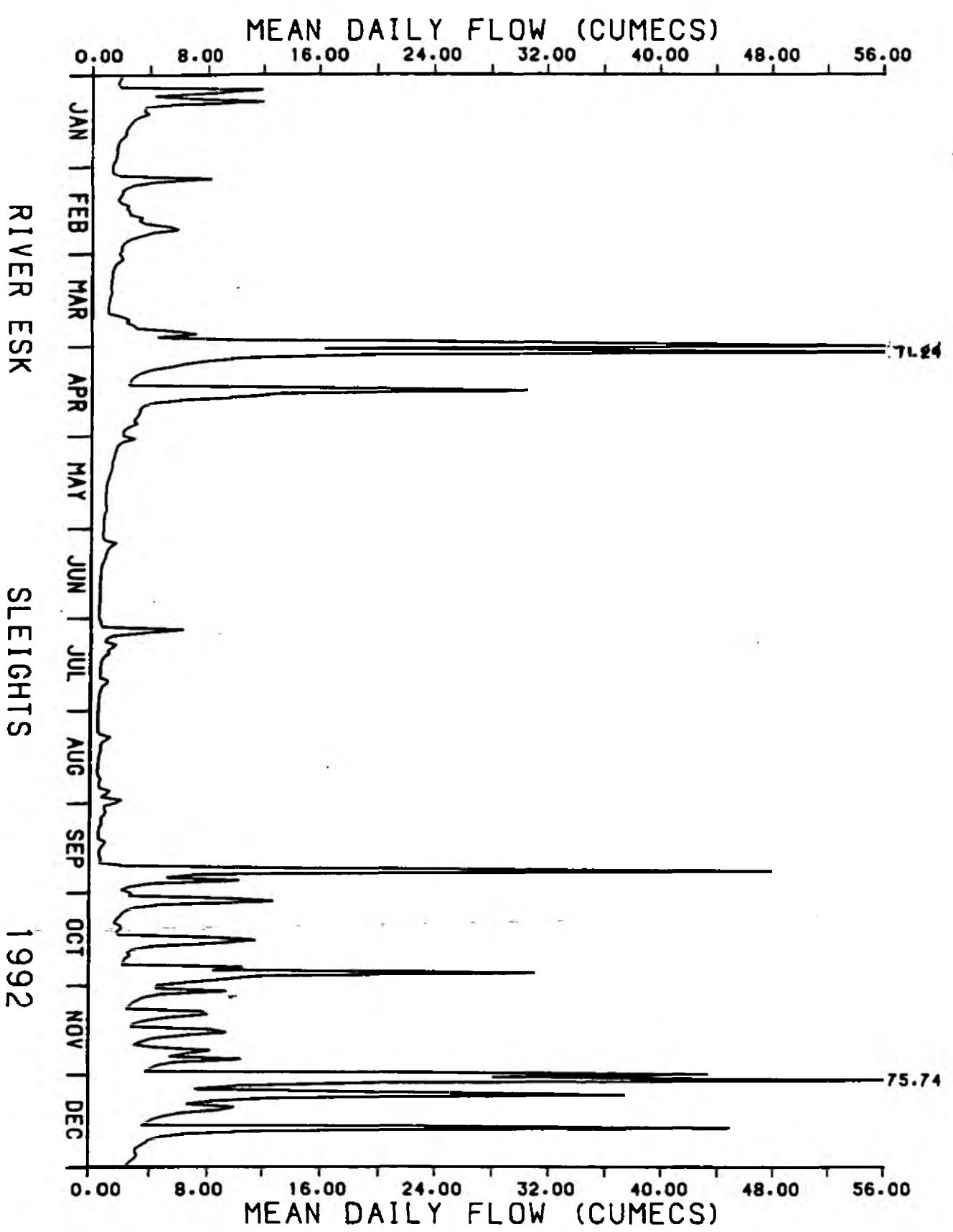
ANNUAL FLOW STATISTICS

TOTAL NUMBER OF DAYS OF RECORD:- 366/366

TOTAL FLOW:-	1595. CUMEC DAYS	MINIMUM MEAN DAILY FLOW:-	0.417 CUMECs
MEAN FLOW:-	4.359 CUMECs	MAXIMUM MEAN DAILY FLOW:-	75.74 CUMECs
MEDIAN FLOW:-	2.083 CUMECs	MAXIMUM INSTANTANEOUS FLOW:-	119.7 CUMECs 2/12
		SEVEN DAY MINIMUM FLOW:-	0.439 CUMECs 1-7/8

PERCENTAGE OF TIME:- 10 20 30 40 50 60 70 80 90

FLOW NOT EXCEEDED:- 0.563 0.712 1.039 1.513 2.082 2.585 3.271 4.798 8.813



NATIONAL RIVERS] AUTHORITY : STATION:- 8912903 RIVER ESK

SLEIGHTS

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 16 OUT OF 16 PERIOD:- 1977 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:- 5.242 CUMECs

MEDIAN FLOW:- 2.378 CUMECs

MODAL FLOW:- 0.963 CUMECs

MINIMUM MEAN DAILY FLOW:- 0.389 CUMECs ON 14/ 9/1991

MAXIMUM MEAN DAILY FLOW:- 213.3 CUMECs ON 25/ 3/1979

MAXIMUM INSTANTANEOUS FLOW:- 358.7 CUMECs ON 25/ 3/1979 AT 22:00

DRY WEATHER FLOW:- 0.693 CUMECs

MODAL FLOW CALCULATED WITH A 4.8% CLASS INTERVAL

This station has only been rated by current meter gaugings recently.

Further reprocessing of data is to take place.

NATIONAL RIVERS AUTHORITY : STATION:- 8912903 RIVER ESK

SLEIGHTS

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 16 OUT OF 15 PERIOD:- 1977 TO 1992 SEASON:- JAN TO DEC

'FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION:- 8912470 RIVER FOSS HUNTINGTON

ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMECS) CALENDAR YEAR:- 1992

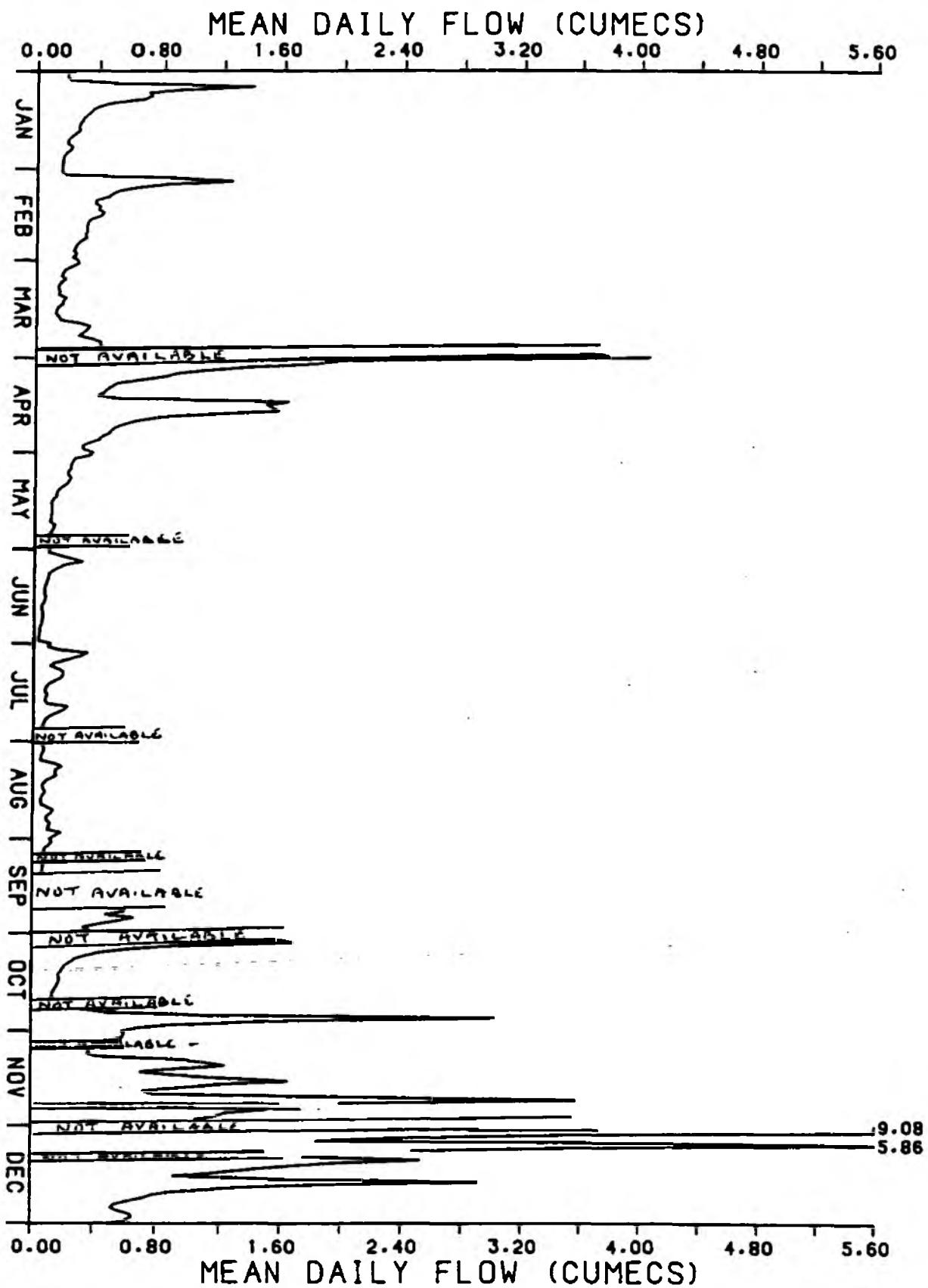
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	31/31	29/29	29/31	30/30	28/31	30/30	28/31	31/31	17/30	28/31	27/30	30/31
CUMEC DAYS	11.17	11.82	10.39	24.43	4.546	2.734	3.857	3.059	4.241	16.70	37.09	59.65
MINIMUM	0.161	0.161	0.126	0.299	0.093	0.031	0.052	0.052	0.065	0.127	0.357	0.505
MAXIMUM	1.399	1.256	4.059	2.010	0.349	0.312	0.350	0.188	0.654	3.022	9.080	7.391
MEAN	0.360	0.408	0.358	0.814	0.162	0.091	0.138	0.099	0.249	0.596	1.374	1.988
MEDIAN	0.268	0.326	0.186	0.562	0.138	0.072	0.108	0.093	0.106	0.300	0.949	1.469

ANNUAL FLOW STATISTICS

TOTAL NUMBER OF DAYS OF RECORD:- 338/366

TOTAL FLOW:-	189.7 CUMEC DAYS	MINIMUM MEAN DAILY FLOW:-	0.031 CUMECs
MEAN FLOW:-	0.561 CUMECs	MAXIMUM MEAN DAILY FLOW:-	9.080 CUMECs
MEDIAN FLOW:-	0.241 CUMECs	MAXIMUM INSTANTANEOUS FLOW:-	0.000 CUMECs
		SEVEN DAY MINIMUM FLOW:-	0.040 CUMECs
PERCENTAGE OF TIME:-	10 20 30 40 50 60 70 80 90		
FLOW NOT EXCEEDED:-	0.072 0.105 0.145 0.186 0.239 0.343 0.472 0.692 1.371		

RIVER FOSS
HUNTINGTON
1992



NATIONAL RIVERS AUTHORITY : STATION:- 8912470 RIVER FOSS

HUNTINGTON

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 5 OUT OF 5 PERIOD:- 1988 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:- 0.617 CUMECMS

MEDIAN FLOW:- 0.243 CUMECMS

MODAL FLOW:- 0.058 CUMECMS

MINIMUM MEAN DAILY FLOW:- 0.031 CUMECMS ON 28/ 6/1992

MAXIMUM MEAN DAILY FLOW:- 9.080 CUMECMS ON 30/11/1992

MAXIMUM INSTANTANEOUS FLOW:- N/A

DRY WEATHER FLOW:- 0.060 CUMECMS

MODAL FLOW CALCULATED WITH A 9.1% CLASS INTERVAL

NATIONAL RIVERS AUTHORITY : STATION:- 8912470 RIVER FOSS

HUNTINGTON

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 5 OUT OF 5 PERIOD:- 1988 TO 1992 SEASON:- JAN TO DEC

'FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION:- 8913120 FOSTON BECK FOSTON MILL

ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMECS) CALENDAR YEAR:- 1992

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	31/31	29/29	31/31	30/30	31/31	30/30	31/31	31/31	30/30	31/31	30/30	31/31
CUMEC DAYS	3.773	3.037	2.702	2.879	3.033	2.493	3.124	2.756	2.947	3.753	5.042	17.18
MINIMUM	0.093	0.087	0.061	0.071	0.074	0.072	0.080	0.080	0.077	0.098	0.115	0.288
MAXIMUM	0.152	0.131	0.239	0.171	0.122	0.107	0.145	0.102	0.177	0.198	0.296	0.748
MEAN	0.122	0.105	0.087	0.096	0.098	0.083	0.101	0.089	0.098	0.121	0.168	0.554
MEDIAN	0.121	0.102	0.080	0.094	0.096	0.084	0.099	0.088	0.084	0.106	0.161	0.510

ANNUAL FLOW STATISTICS

TOTAL NUMBER OF DAYS OF RECORD:- 366/366

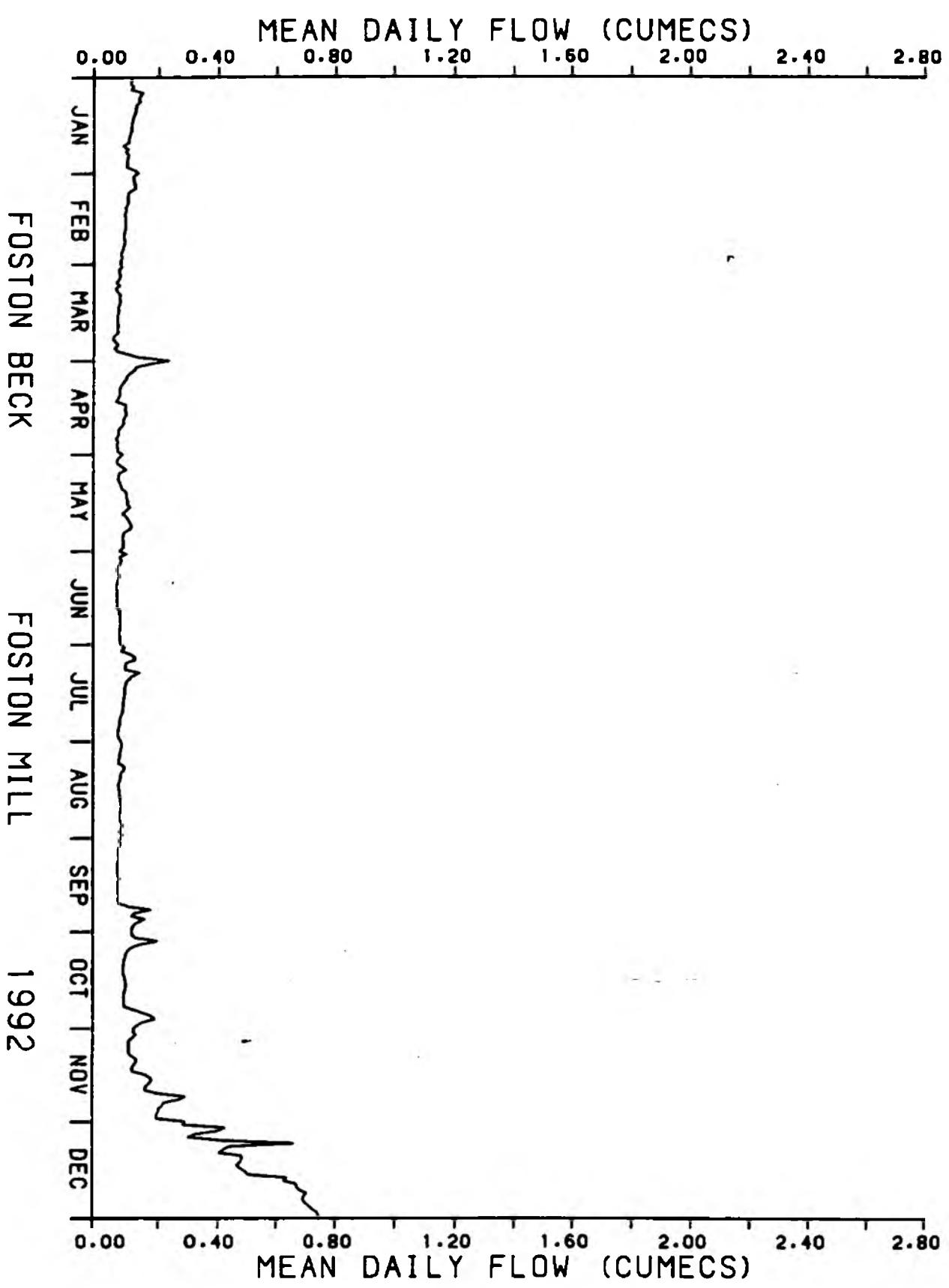
TOTAL FLOW:- 52.72 CUMEC DAYS MINIMUM MEAN DAILY FLOW:- 0.061 CUMECS

MEAN FLOW:- 0.144 CUMECS MAXIMUM MEAN DAILY FLOW:- 0.748 CUMECS

MEDIAN FLOW:- 0.101 CUMECS MAXIMUM INSTANTANEOUS FLOW:- 0.807 CUMECS 7/12
SEVEN DAY MINIMUM FLOW:- 0.072 CUMECS 21-27/3

PERCENTAGE OF TIME:- 10 20 30 40 50 60 70 80 90

FLOW NOT EXCEEDED:- 0.079 0.083 0.087 0.093 0.100 0.107 0.118 0.132 0.201



NATIONAL RIVERS AUTHORITY : STATION:- 8913120 FOSTON BECK

FOSTON MILL

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 17 OUT OF 17 PERIOD:- 1976 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:- 0.603 CUMECs

MEDIAN FLOW:- 0.451 CUMECs

MODAL FLOW:- 0.304 CUMECs

MINIMUM MEAN DAILY FLOW:- 0.061 CUMECs ON 24/ 3/1992

MAXIMUM MEAN DAILY FLOW:- 2.707 CUMECs ON 10/ 2/1977

MAXIMUM INSTANTANEOUS FLOW:- 2.954 CUMECs ON 10/ 2/1977 AT 14:15

DRY WEATHER FLOW:- 0.222 CUMECs

MODAL FLOW CALCULATED WITH A 5.0% CLASS INTERVAL

NATIONAL RIVERS AUTHORITY : STATION:- 8913120 FOSTON BECK FOSTON MILL

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 17 OUT OF 17 PERIOD:- 1976 TO 1992 SEASON:- JAN TO DEC

' FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION:- 8913004 GYPSEY RACE BOYNTON

ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMECS) CALENDAR YEAR:- 1992

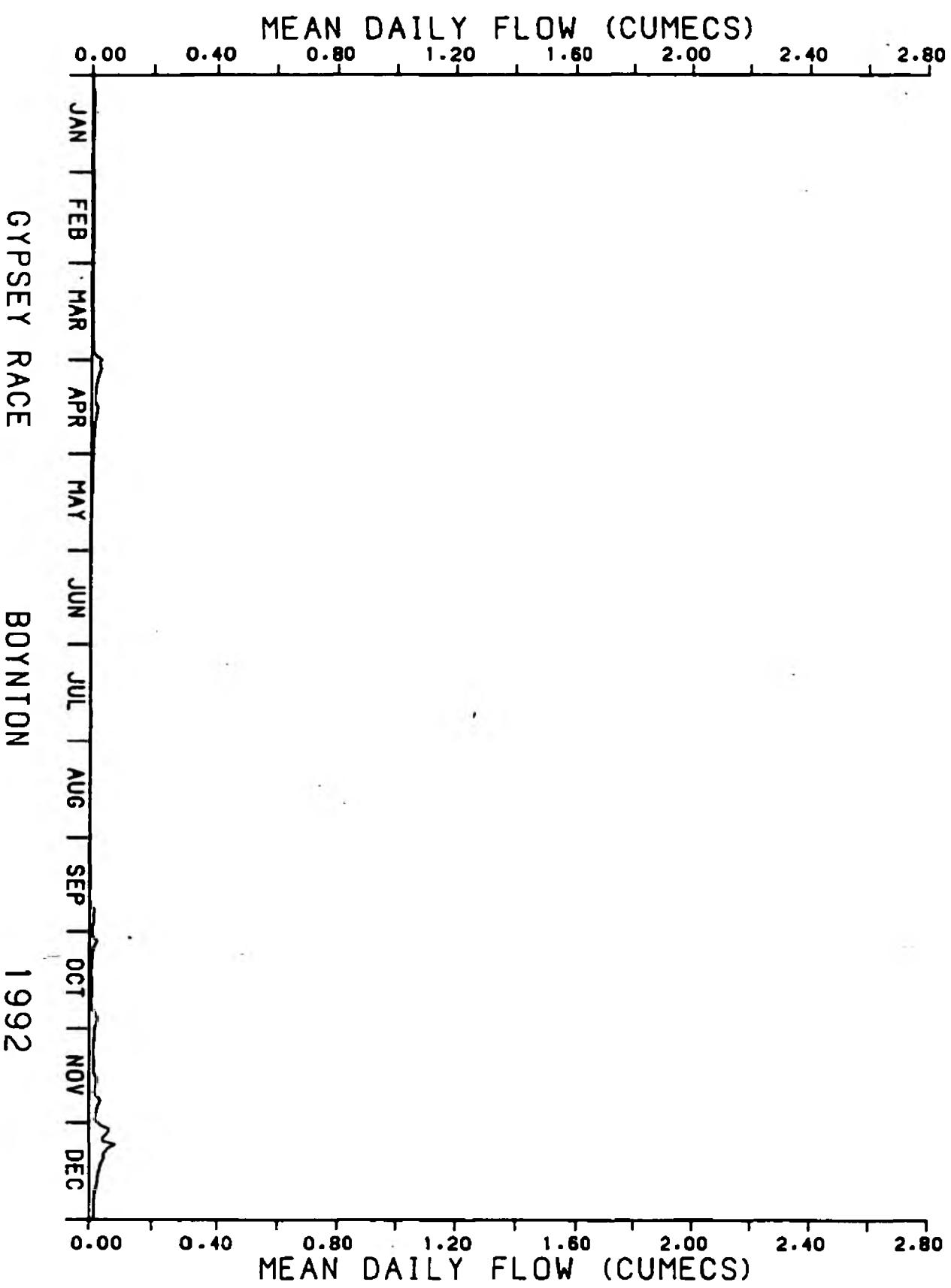
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	31/31	29/29	31/31	30/30	31/31	30/30	31/31	31/31	30/30	31/31	30/30	31/31
CUMEC DAYS	0.185	0.164	0.171	0.455	0.067	0.000	0.023	0.004	0.105	0.349	0.568	1.010
MINIMUM	0.003	0.004	0.003	0.005	0.000	0.000	0.000	0.000	0.000	0.005	0.010	0.010
MAXIMUM	0.014	0.008	0.034	0.032	0.006	0.000	0.004	0.002	0.019	0.026	0.035	0.065
MEAN	0.006	0.006	0.006	0.015	0.002	0.000	0.001	0.000	0.003	0.011	0.019	0.033
MEDIAN	0.005	0.005	0.004	0.013	0.002	0.000	0.000	0.000	0.000	0.008	0.017	0.029

ANNUAL FLOW STATISTICS

TOTAL NUMBER OF DAYS OF RECORD:- 366/366

TOTAL FLOW:-	3.101 CUMEC DAYS	MINIMUM MEAN DAILY FLOW:-	0.000 CUMECs
MEAN FLOW:-	0.008 CUMECs	MAXIMUM MEAN DAILY FLOW:-	0.083 CUMECs
MEDIAN FLOW:-	0.005 CUMECs	MAXIMUM INSTANTANEOUS FLOW:-	0.102 CUMECs 7/12
		SEVEN DAY MINIMUM FLOW:-	-0.000 CUMECs often

PERCENTAGE OF TIME:-	10	20	30	40	50	60	70	80	90
FLOW NOT EXCEEDED:-	0.000	0.000	0.001	0.004	0.005	0.006	0.009	0.014	0.022



NATIONAL RIVERS AUTHORITY : STATION:- 8913004 GYPSEY RACE

BOYNTON

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 12 OUT OF 12 PERIOD:- 1981 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:- 0.177 CUMECs

MEDIAN FLOW:- 0.035 CUMECs

MODAL FLOW:- 0.002 CUMECs

MINIMUM MEAN DAILY FLOW:- 0.000 CUMECs ON 30/ 5/1989

MAXIMUM MEAN DAILY FLOW:- 1.855 CUMECs ON 1/ 4/1981

MAXIMUM INSTANTANEOUS FLOW:- 1.868 CUMECs ON 01/ 4/1981 AT 12:30

DRY WEATHER FLOW:- 0.005 CUMECs

MODAL FLOW CALCULATED WITH A 25.0% CLASS INTERVAL

NATIONAL RIVERS AUTHORITY : STATION:- 8913004 GYPSEY RACE

BOYNTON

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 12 OUT OF 12 PERIOD:- 1981 TO 1992 SEASON:- JAN TO DEC

'FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION:- 8911960 HEBDEN BECK HEBDEN

ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMECS) CALENDAR YEAR:- 1992

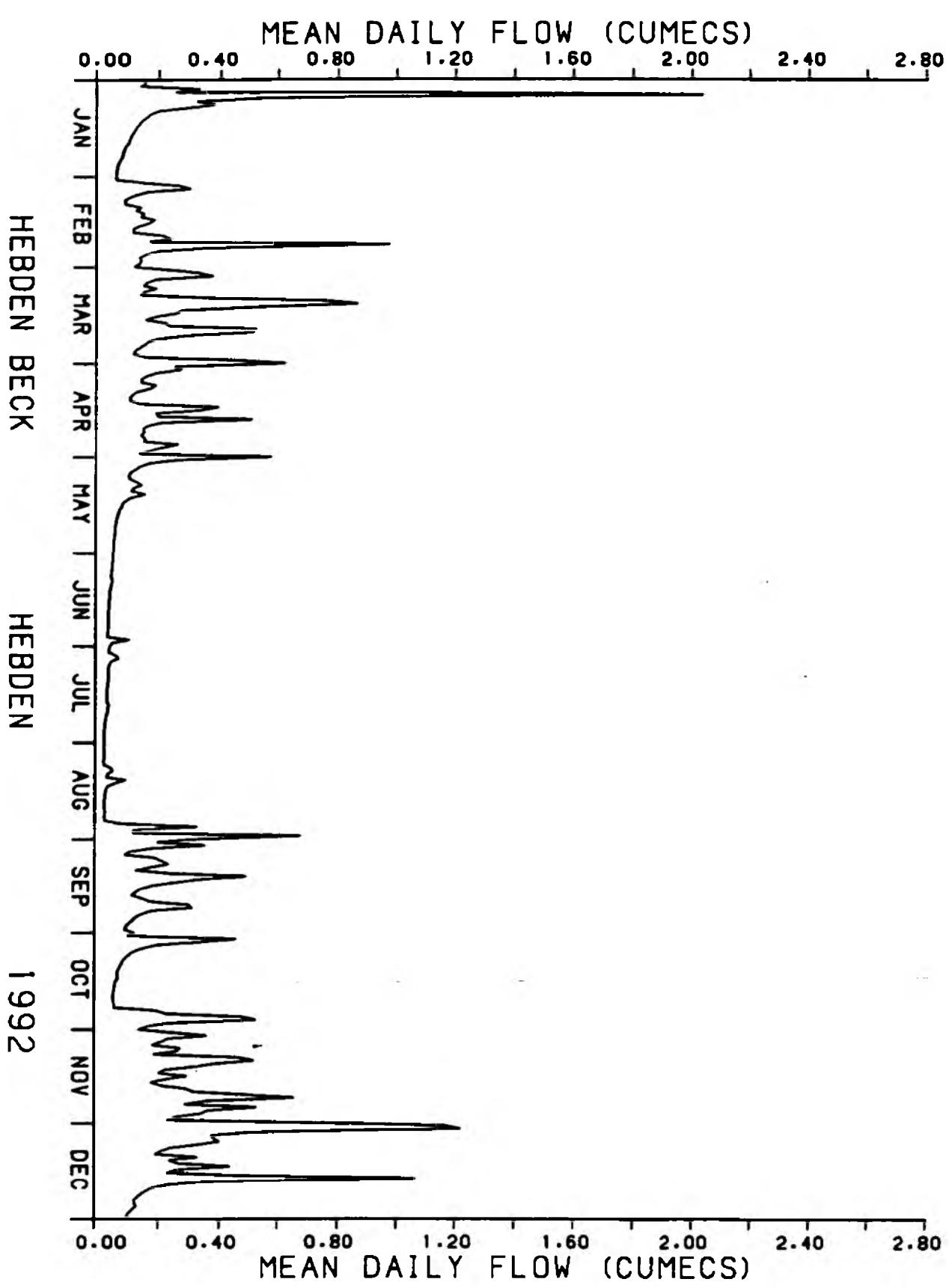
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	31/31	29/29	31/31	30/30	31/31	30/30	31/31	31/31	30/30	31/31	30/30	31/31
CUMEC DAYS	6.740	5.395	9.200	6.176	2.979	1.508	1.289	2.616	5.637	4.644	9.760	10.32
MINIMUM	0.064	0.063 ¹	0.113	0.104	0.057	0.040	0.030	0.029	0.095	0.060	0.175	0.100
MAXIMUM	2.040	0.975	0.870	0.577	0.261	0.105	0.076	0.678	0.488	0.525	0.691	1.220
MEAN	0.217	0.186	0.297	0.206	0.096	0.050	0.042	0.084	0.188	0.150	0.325	0.333
MEDIAN	0.117	0.138	0.223	0.165	0.083	0.047	0.040	0.034	0.173	0.091	0.289	0.239

ANNUAL FLOW STATISTICS

TOTAL NUMBER OF DAYS OF RECORD:- 366/366

TOTAL FLOW:-	66.26	CUMEC DAYS	MINIMUM MEAN DAILY FLOW:-	0.029	CUMECs
MEAN FLOW:-	0.181	CUMECs	MAXIMUM MEAN DAILY FLOW:-	2.040	CUMECs
MEDIAN FLOW:-	0.127	CUMECs	MAXIMUM INSTANTANEOUS FLOW:-	4.197	CUMECs 5/1
			SEVEN DAY MINIMUM FLOW:-	0.030	CUMECs 1-7/8

PERCENTAGE OF TIME:-	10	20	30	40	50	60	70	80	90
FLOW NOT EXCEEDED:-	0.041	0.053	0.069	0.104	0.126	0.152	0.193	0.261	0.359



NATIONAL RIVERS AUTHORITY : STATION:- 8911960 HEBDEN BECK HEBDEN

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 27 OUT OF 27 PERIOD:- 1966 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:- 0.173 CUMECs

MEDIAN FLOW:- 0.100 CUMECs

MODAL FLOW:- 0.028 CUMECs

MINIMUM MEAN DAILY FLOW:- 0.009 CUMECs ON 19/ 8/1983

MAXIMUM MEAN DAILY FLOW:- 3.135 CUMECs ON 23/ 2/1991

MAXIMUM INSTANTANEOUS FLOW:- 8.918 CUMECs ON 02/ 2/1981 AT 01:00

DRY WEATHER FLOW:- 0.025 CUMECs

MODAL FLOW CALCULATED WITH A 10.0% CLASS INTERVAL

NATIONAL RIVERS AUTHORITY : STATION:- 8911960 HEBDEN BECK

HEBDEN

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 27 OUT OF 27 PERIOD:- 1966 TO 1992 SEASON:- JAN TO DEC

'FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION NUMBER:- 03 HODGE BECK....BRANSDALE WEIR

LONG PERIOD RIVER FLOW RECORD

NATIONAL STATION NUMBER:- 10

TOTAL NUMBER OF YEARS OF RECORD:- 22

PERIOD:- 1957 TO 1978

MEAN FLOW:- 0.35 CU.M/S

MEDIAN FLOW:- 0.21 CU.M/S

MODAL FLOW:- 0.07 CU.M/S

MINIMUM MEAN DAILY FLOW:- 0.030 CU.M/S

MAXIMUM MEAN DAILY FLOW:- 9.80 CU.M/S

MAXIMUM INSTANTANEOUS FLOW:- 14.38 CU.M/S 5/11/67

DRY WEATHER FLOW:- 0.07 CU.M/S

NATIONAL RIVERS AUTHORITY : STATION NUMBER:- 03

LONG PERIOD RIVER FLOW RECORD

TOTAL NUMBER OF YEARS OF RECORD:- 22

	FLOW NOT EXCEEDED FOR GIVEN				
	0	1	2	3	4
0		0.04	0.05	0.05	0.06
10	0.08	0.08	0.08	0.08	0.08
20	0.10	0.11	0.11	0.11	0.11
30	0.13	0.13	0.14	0.14	0.14
40	0.16	0.17	0.17	0.18	0.18
50	0.21	0.22	0.22	0.22	0.23
60	0.27	0.27	0.28	0.29	0.29
70	0.35	0.36	0.37	0.38	0.39
80	0.47	0.49	0.51	0.53	0.55
90	0.73	0.76	0.82	0.88	0.97
100	9.30				

HODGE BECK....BRANSDALE WEIR

NATIONAL STATION NUMBER:- 10

PERIOD:- 1957 TO 1978

PERCENTAGE OF PERIOD

5	6	7	8	9
0.06	0.07	0.07	0.07	0.07
0.09	0.09	0.09	0.10	0.10
0.12	0.12	0.12	0.13	0.13
0.15	0.15	0.15	0.16	0.16
0.19	0.19	0.19	0.20	0.20
0.24	0.24	0.25	0.25	0.26
0.30	0.31	0.32	0.33	0.34
0.40	0.42	0.43	0.45	0.46
0.57	0.59	0.62	0.64	0.68
1.06	1.19	1.33	1.56	2.31

NATIONAL RIVERS AUTHORITY : STATION:- 8912570 HODGE BECK CHERRY FARM

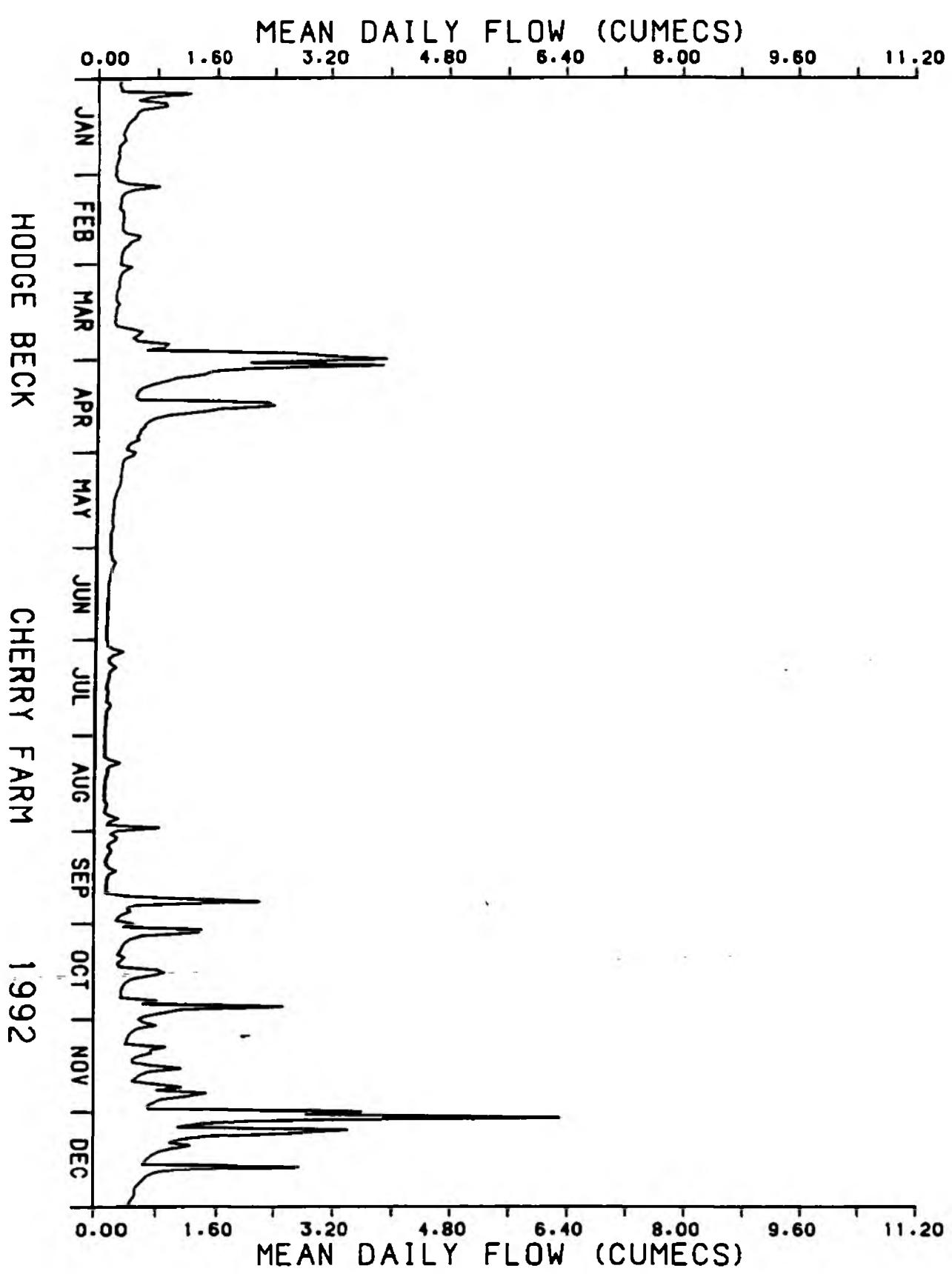
ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMECS) CALENDAR YEAR:- 1992

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	31/31	29/29	31/31	30/30	31/31	30/30	31/31	31/31	30/30	31/31	30/30	31/31
CUMEC DAYS	13.40	11.03	20.51	31.88	7.868	4.550	4.819	5.146	9.944	19.13	24.16	39.35
MINIMUM	0.239	0.268	0.231	0.395	0.168	0.119	0.110	0.108	0.133	0.268	0.374	0.406
MAXIMUM	1.239	0.829	3.934	3.890	0.489	0.242	0.366	0.837	2.218	2.542	3.611	6.307
MEAN	0.432	0.380	0.662	1.063	0.254	0.152	0.155	0.166	0.331	0.617	0.805	1.269
MEDIAN	0.345	0.345	0.303	0.653	0.217	0.140	0.137	0.120	0.182	0.386	0.702	0.779

ANNUAL FLOW STATISTICS

TOTAL NUMBER OF DAYS OF RECORD:- 366/366

TOTAL FLOW:-	191.8 CUMEC DAYS	MINIMUM MEAN DAILY FLOW:-	0.108 CUMECs
MEAN FLOW:-	0.524 CUMECs	MAXIMUM MEAN DAILY FLOW:-	6.307 CUMECs
MEDIAN FLOW:-	0.325 CUMECs	MAXIMUM INSTANTANEOUS FLOW:-	11.39 CUMECs a/ia
		SEVEN DAY MINIMUM FLOW:-	0.111 CUMECs 1-7/8
PERCENTAGE OF TIME:-	10	20	30
FLOW NOT EXCEEDED:-	0.132	0.154	0.202
	40	50	60
	0.268	0.323	0.386
	70	80	90
	0.505	0.657	0.986



NATIONAL RIVERS] AUTHORITY : STATION:- 8912570 HODGE BECK

CHERRY FARM

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 16 OUT OF 16 PERIOD:- 1977 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:- 0.664 CUMECs

MEDIAN FLOW:- 0.418 CUMECs

MODAL FLOW:- 0.165 CUMECs

MINIMUM MEAN DAILY FLOW:- 0.099 CUMECs ON 13/ 9/1991

MAXIMUM MEAN DAILY FLOW:- 10.74 CUMECs ON 2/ 3/1979

MAXIMUM INSTANTANEOUS FLOW:- 17.43 CUMECs ON 21/ 3/1981 AT 06:45

DRY WEATHER FLOW:- 0.148 CUMECs

MODAL FLOW CALCULATED WITH A 5.3% CLASS INTERVAL

THis record should be used with caution.

It was designed as a low flow measuring station, and therefore at higher flows
it can only be approximate.

NATIONAL RIVERS AUTHORITY : STATION:- 8912570 HODGE BECK

CHERRY FARM

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 16 OUT OF 16 PERIOD:- 1977 TO 1992 SEASON:- JAN TO DEC

'FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION:- 8911003 RIVER HOLME QUEENS MILL

ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMECS) CALENDAR YEAR:- 1992

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	31/31	29/29	31/31	30/30	31/31	30/30	31/31	31/31	30/30	31/31	30/30	31/31
CUMEC DAYS	77.28	32.17	79.26	50.04	29.07	28.59	21.88	32.33	41.33	67.78	116.2	124.6
MINIMUM	0.775	0.767 ¹	0.869	1.008	0.623	0.541	0.451	0.441	0.848	0.734	1.848	1.041
MAXIMUM	18.08	1.623	8.726	3.862	1.569	2.989	1.943	3.438	2.272	10.02	10.64	14.66
MEAN	2.493	1.109	2.557	1.668	0.938	0.953	0.706	1.043	1.378	2.186	3.874	4.019
MEDIAN	1.293	1.093	2.022	1.436	0.878	0.762	0.607	0.879	1.287	1.187	3.683	2.722

ANNUAL FLOW STATISTICS

TOTAL NUMBER OF DAYS OF RECORD:- 366/366

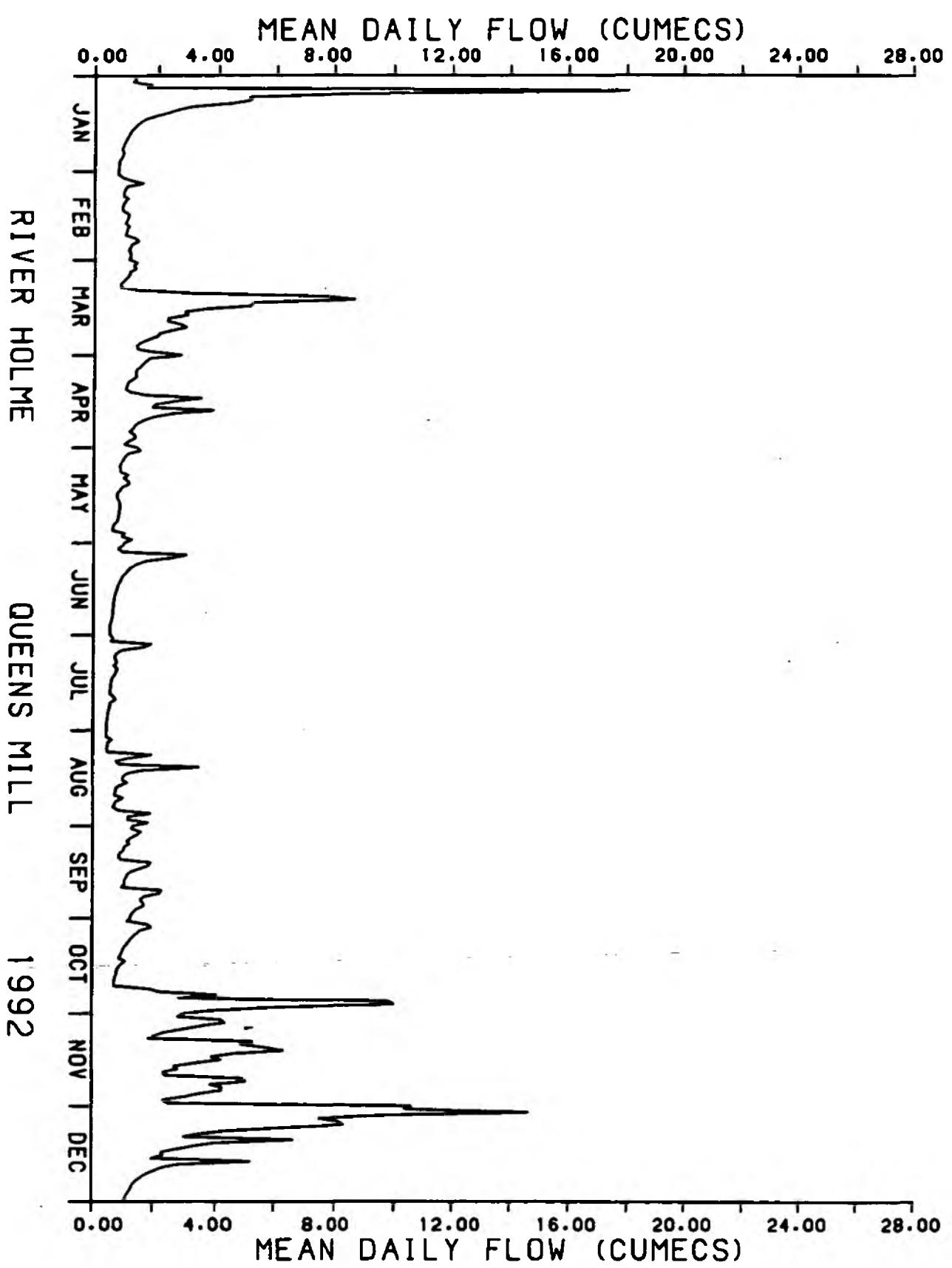
TOTAL FLOW:- 700.5 CUMEC DAYS MINIMUM MEAN DAILY FLOW:- 0.441 CUMECs

MEAN FLOW:- 1.914 CUMECs MAXIMUM MEAN DAILY FLOW:- 18.08 CUMECs

MEDIAN FLOW:- 1.186 CUMECs MAXIMUM INSTANTANEOUS FLOW:- 27.92 CUMECs 5/1
SEVEN DAY MINIMUM FLOW:- 0.457 CUMECs 27/7-2/8

PERCENTAGE OF TIME:- 10 20 30 40 50 60 70 80 90

FLOW NOT EXCEEDED:- 0.665 0.802 0.944 1.068 1.185 1.398 1.759 2.442 3.871



NATIONAL RIVERS AUTHORITY : STATION:- 8911003 RIVER HOLME

QUEENS MILL

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 13 OUT OF 13 PERIOD:- 1980 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:- 2.139 CUMECs

MEDIAN FLOW:- 1.207 CUMECs

MODAL FLOW:- 0.646 CUMECs

MINIMUM MEAN DAILY FLOW:- 0.272 CUMECs ON 26/ 8/1984

MAXIMUM MEAN DAILY FLOW:- 36.74 CUMECs ON 21/12/1991

MAXIMUM INSTANTANEOUS FLOW:- 60.58 CUMECs ON 23/ 3/1989 AT 07:00

DRY WEATHER FLOW:- 0.501 CUMECs

MODAL FLOW CALCULATED WITH A 8.3% CLASS INTERVAL

NATIONAL RIVERS AUTHORITY : STATION:- 8911003 RIVER HOLME

QUEENS MILL

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 13 OUT OF 13 PERIOD:- 1980 TO 1992 SEASON:- JAN TO DEC

'FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION:- 8913102 RIVER HULL HEMPHOLME

ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMECS) CALENDAR YEAR:- 1992

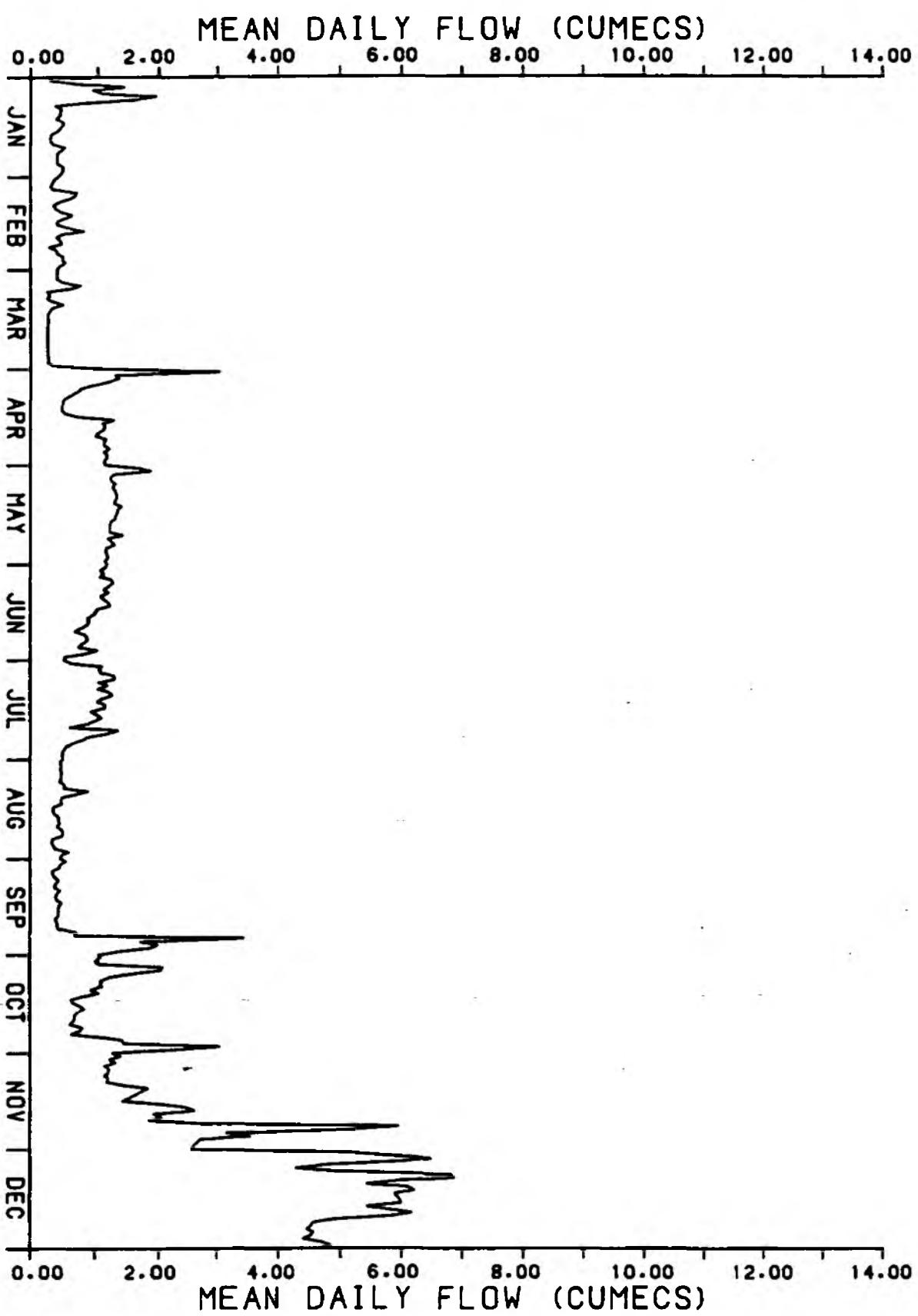
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	31/31	29/29	31/31	30/30	31/31	30/30	31/31	31/31	30/30	31/31	30/30	31/31
CUMEC DAYS	18.94	14.01	11.22	30.75	39.91	29.04	29.45	14.91	22.27	35.08	64.66	167.9
MINIMUM	0.312	0.289	0.255	0.498	1.111	0.521	0.497	0.335	0.335	0.624	1.122	4.292
MAXIMUM	1.967	0.833	1.041	3.043	1.886	1.273	1.365	0.902	3.424	3.054	5.958	6.884
MEAN	0.611	0.483	0.362	1.025	1.288	0.968	0.950	0.481	0.742	1.132	2.155	5.416
MEDIAN	0.463	0.463	0.266	1.099	1.284	1.001	1.018	0.485	0.439	1.052	1.857	5.449

ANNUAL FLOW STATISTICS

TOTAL NUMBER OF DAYS OF RECORD:- 366/366

TOTAL FLOW:-	478.1	CUMEC DAYS	MINIMUM MEAN DAILY FLOW:-	0.255	CUMECs				
MEAN FLOW:-	1.306	CUMECs	MAXIMUM MEAN DAILY FLOW:-	6.884	CUMECs				
MEDIAN FLOW:-	0.879	CUMECs	MAXIMUM INSTANTANEOUS FLOW:-	0.000	CUMECs				
			SEVEN DAY MINIMUM FLOW:-	0.266	CUMECs				
PERCENTAGE OF TIME:-	10	20	30	40	50	60	70	80	90
FLOW NOT EXCEEDED:-	0.359	0.439	0.498	0.636	0.879	1.076	1.130	1.370	3.043

RIVER HULL
HEMPHOLME
1992



NATIONAL RIVERS AUTHORITY : STATION:- 8913102 RIVER HULL

HEMPHOLME

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 30 OUT OF 30 PERIOD:- 1963 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:- 3.798 CUMECs

MEDIAN FLOW:- 2.630 CUMECs

MODAL FLOW:- 1.060 CUMECs

MINIMUM MEAN DAILY FLOW:- 0.000 CUMECs ON 28/10/1991

MAXIMUM MEAN DAILY FLOW:- 20.09 CUMECs ON 24/ 2/1977

MAXIMUM INSTANTANEOUS FLOW:- N/A

DRY WEATHER FLOW:- 0.849 CUMECs

MODAL FLOW CALCULATED WITH A 4.8% CLASS INTERVAL

NATIONAL RIVERS AUTHORITY : STATION:- 8913102 RIVER HULL

HEMPHOLME

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 30 OUT OF 30 PERIOD:- 1963 TO 1992 SEASON:- JAN TO DEC

'FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION:- 8912480 RIVER KYLE

NEWTON-ON-OUSE

ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMECS) CALENDAR YEAR:- 1992

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	31/31	29/29	31/31	30/30	31/31	30/30	31/31	31/31	30/30	31/31	30/30	31/31
CUMEC DAYS	212.1	87.55	223.4	346.4	33.03	4.410	5.662	36.24	76.45	101.0	418.8	1127.
MINIMUM	0.234	0.239 ¹	0.245	0.395	0.158	0.095	0.093	0.094	0.119	0.177	0.419	0.806
MAXIMUM	69.44	43.05	69.87	100.8	12.76	0.280	0.353	21.21	25.14	38.91	49.36	156.3
MEAN	6.842	3.019	7.206	11.55	1.065	0.147	0.183	1.169	2.548	3.258	13.96	36.36
MEDIAN	0.374	0.509	0.406	1.418	0.218	0.130	0.171	0.226	0.246	0.332	7.590	10.41

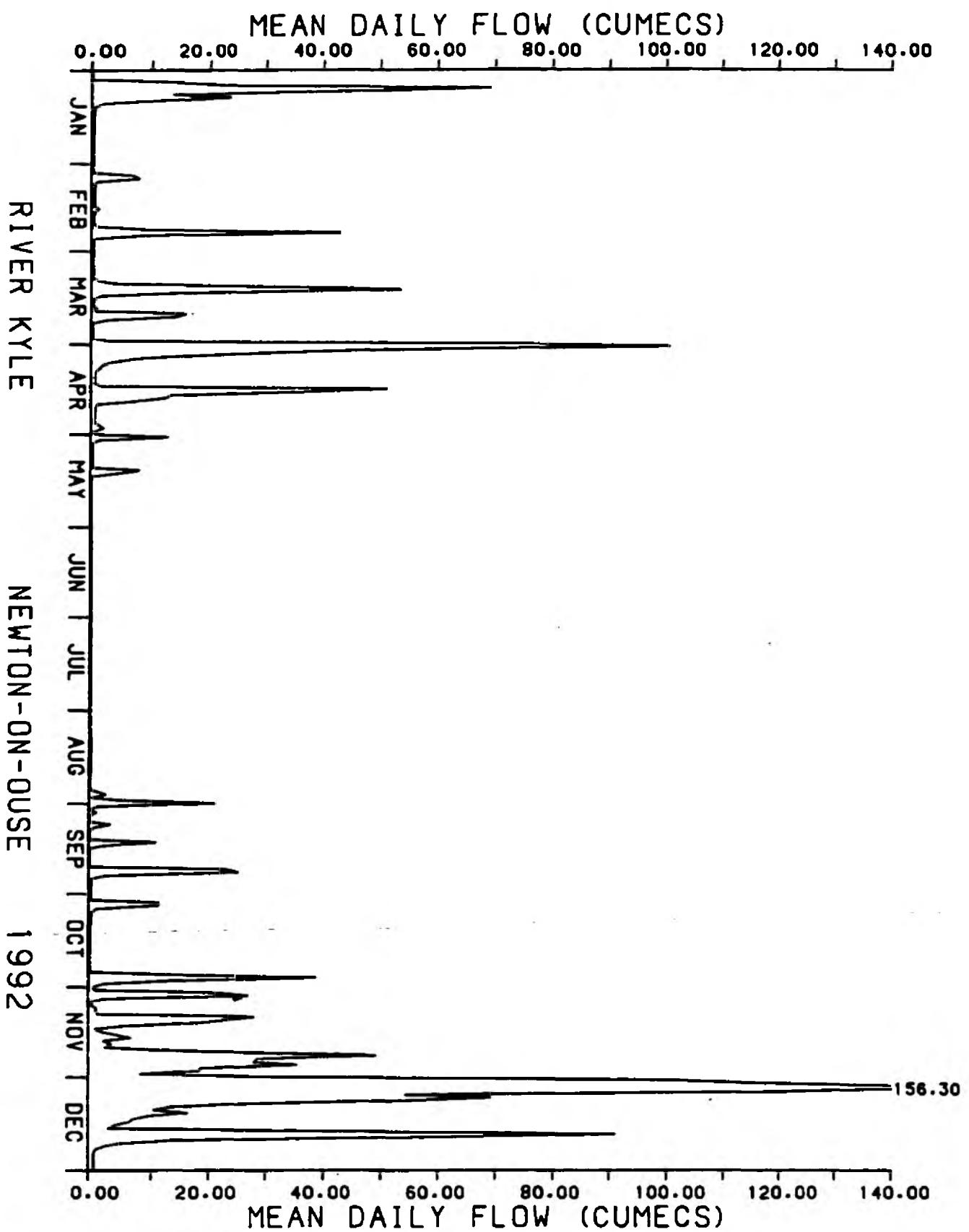
ANNUAL FLOW STATISTICS

TOTAL NUMBER OF DAYS OF RECORD:- 366/366

TOTAL FLOW:-	2672. CUMEC DAYS	MINIMUM MEAN DAILY FLOW:-	0.093 CUMECs
MEAN FLOW:-	7.301 CUMECs	MAXIMUM MEAN DAILY FLOW:-	156.3 CUMECs
MEDIAN FLOW:-	0.370 CUMECs	MAXIMUM INSTANTANEOUS FLOW:-	160.2 CUMECs 4/12
		SEVEN DAY MINIMUM FLOW:-	0.097 CUMECs 29/7 - 4/8

PERCENTAGE OF TIME:- 10 20 30 40 50 60 70 80 90

FLOW NOT EXCEEDED:- 0.132 0.178 0.228 0.297 0.367 0.540 1.290 6.693 21.21



NATIONAL RIVERS AUTHORITY : STATION:- 8912480 RIVER KYLE

NEWTON-ON-OUSE

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 13 OUT OF 13 PERIOD:- 1980 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:- 10.47 CUMECs

MEDIAN FLOW:- 0.738 CUMECs

MODAL FLOW:- 0.141 CUMECs

MINIMUM MEAN DAILY FLOW:- 0.074 CUMECs ON 21/10/1991

MAXIMUM MEAN DAILY FLOW:- 202.3 CUMECs ON 6/ 1/1982

MAXIMUM INSTANTANEOUS FLOW:- 208.3 CUMECs ON 07/ 1/1982 AT 09:30

DRY WEATHER FLOW:- 0.167 CUMECs

MODAL FLOW CALCULATED WITH A 8.3% CLASS INTERVAL

The medium and high flow record is suspect.

This weir is subject to drowning caused by backing up from the River Ouse.

A downstream chart record is available for part of the period of record.

NATIONAL RIVERS AUTHORITY : STATION:- 8912480 RIVER KYLE

NEWTON-ON-OUSE

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 13 OUT OF 13 PERIOD:- 1980 TO 1992 SEASON:- JAN TO DEC

FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

	0	1	2	3	4	5	6	7	8	9
0		0.096	0.106	0.113	0.121	0.126	0.130	0.137	0.141	0.147
10	0.153	0.164	0.170	0.178	0.186	0.196	0.204	0.212	0.219	0.226
20	0.231	0.237	0.243	0.252	0.261	0.268	0.278	0.286	0.298	0.307
30	0.319	0.332	0.344	0.358	0.373	0.393	0.412	0.429	0.449	0.465
40	0.483	0.510	0.529	0.551	0.583	0.602	0.625	0.649	0.684	0.710
50	0.737	0.776	0.808	0.854	0.896	0.944	0.986	1.032	1.082	1.146
60	1.208	1.293	1.374	1.466	1.595	1.747	1.990	2.227	2.532	2.885
70	3.315	3.800	4.270	4.957	5.527	6.197	7.035	7.822	8.823	10.17
80	11.52	12.76	14.25	16.03	18.08	21.03	23.63	26.81	29.91	32.34
90	37.19	41.90	46.16	51.59	57.55	63.74	70.51	82.45	92.87	111.4

100 202.3

NATIONAL RIVERS AUTHORITY : STATION:- 8912220 RIVER LAVER RIPON

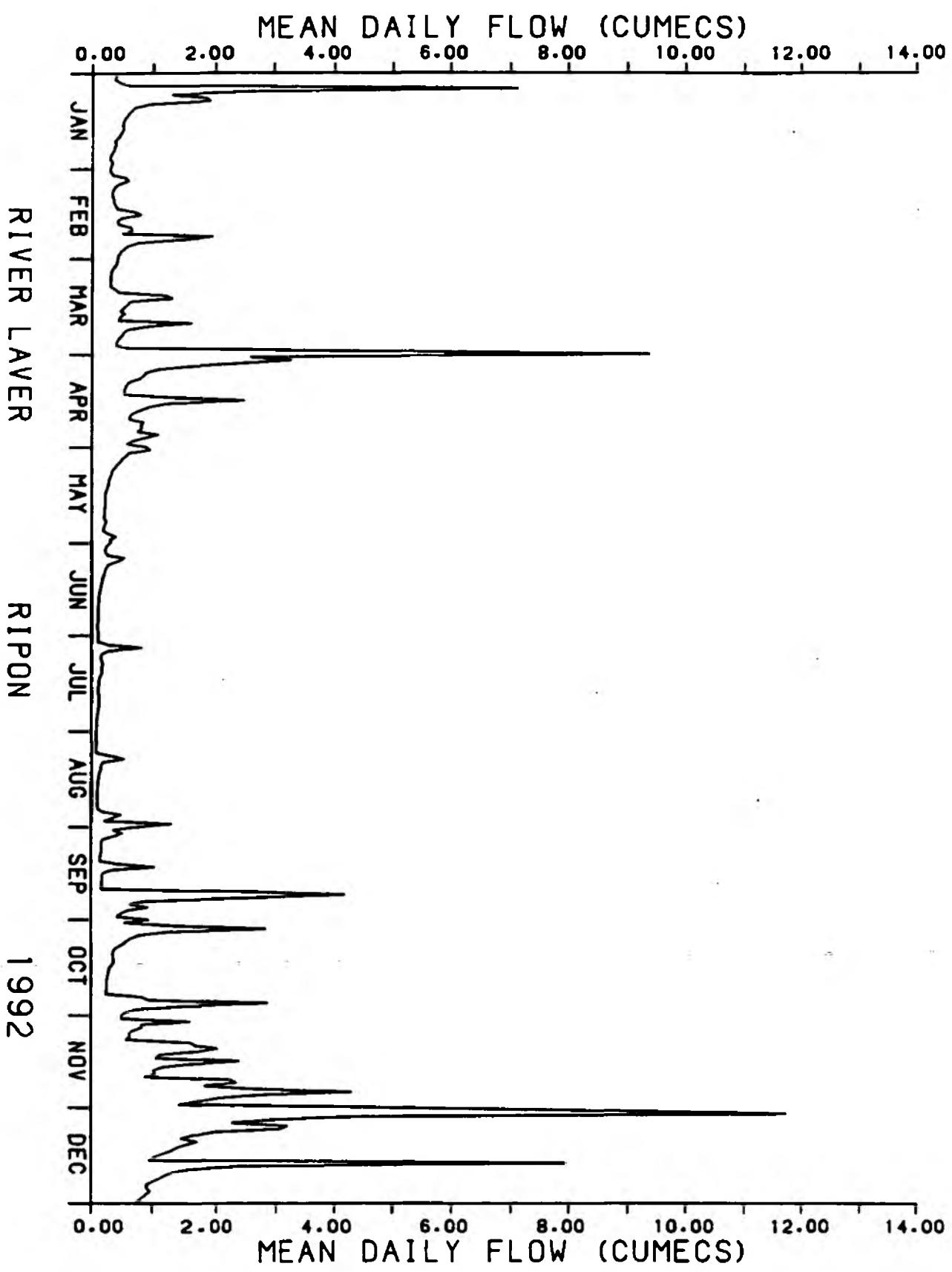
ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMECS) CALENDAR YEAR:- 1992

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	31/31	29/29	31/31	30/30	31/31	30/30	31/31	31/31	30/30	31/31	30/30	31/31
CUMEC DAYS	26.76	16.22	29.25	32.30	9.868	5.290	4.842	6.597	19.58	21.45	49.86	73.18
MINIMUM	0.282	0.294	0.292	0.523	0.184	0.094	0.081	0.074	0.137	0.238	0.501	0.726
MAXIMUM	7.148	1.948	9.397	3.304	0.965	0.544	0.832	1.322	4.173	2.861	5.005	11.74
MEAN	0.863	0.559	0.943	1.077	0.318	0.176	0.156	0.213	0.653	0.692	1.662	2.361
MEDIAN	0.487	0.440	0.454	0.827	0.273	0.136	0.118	0.101	0.343	0.415	1.607	1.399

ANNUAL FLOW STATISTICS

TOTAL NUMBER OF DAYS OF RECORD:- 366/366

TOTAL FLOW:-	295.2	CUMEC DAYS	MINIMUM MEAN DAILY FLOW:-	0.074	CUMECs						
MEAN FLOW:-	0.807	CUMECs	MAXIMUM MEAN DAILY FLOW:-	11.74	CUMECs						
MEDIAN FLOW:-	0.430	CUMECs	MAXIMUM INSTANTANEOUS FLOW:-	18.04	CUMECs 2/12						
			SEVEN DAY MINIMUM FLOW:-	0.077	CUMECs 31/7-6/8						
PERCENTAGE OF TIME:-	10	20	30	40	50	60	70	80	90		
FLOW NOT EXCEEDED:-	0.108	0.166	0.247	0.334	0.427	0.545	0.745	1.024	1.703		



NATIONAL RIVERS AUTHORITY : STATION:- 8912220 RIVER LAVER

RIPON

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 15 OUT OF 15 PERIOD:- 1978 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:- 1.034 CUMECs

MEDIAN FLOW:- 0.515 CUMECs

MODAL FLOW:- 0.213 CUMECs

MINIMUM MEAN DAILY FLOW:- 0.045 CUMECs ON 16/ 9/1990

MAXIMUM MEAN DAILY FLOW:- 28.09 CUMECs ON 28/12/1978

MAXIMUM INSTANTANEOUS FLOW:- 39.14 CUMECs ON 28/12/1978 AT 13:30

DRY WEATHER FLOW:- 0.123 CUMECs

MODAL FLOW CALCULATED WITH A 4.8% CLASS INTERVAL

NATIONAL RIVERS AUTHORITY : STATION:- 8912220 RIVER LAVER

RIPON

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 15 OUT OF 15 PERIOD:- 1978 TO 1992 SEASON:- JAN TO DEC

FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

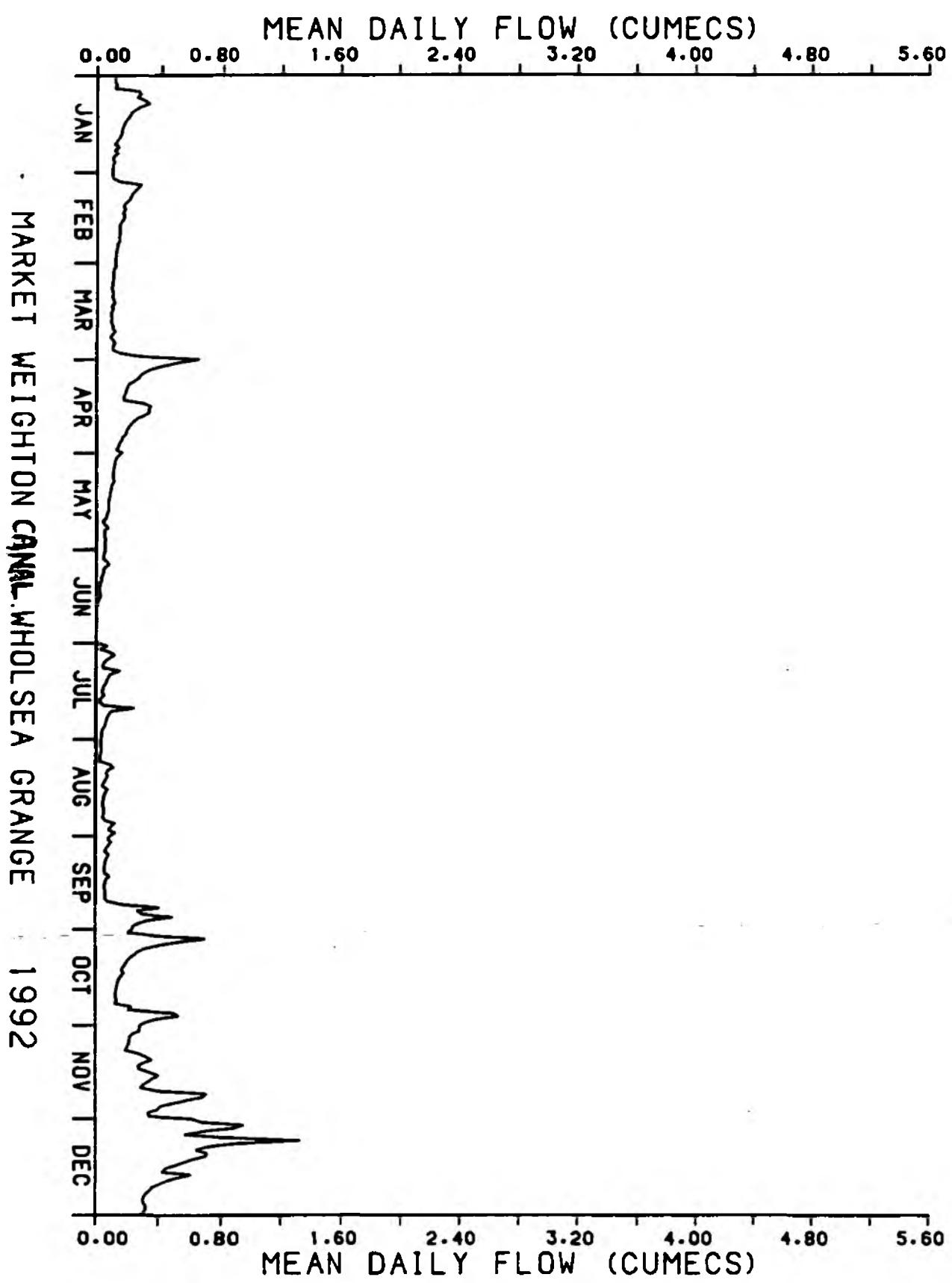
NATIONAL RIVERS AUTHORITY : STATION:- 8913402 MARKET WEIGHTON CANAL WHOLESEA GRANGE

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 4 OUT OF 4 PERIOD:- 1989 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:-	0.161	CUMECs	
MEDIAN FLOW:-	0.096	CUMECs	
MODAL FLOW:-	0.027	CUMECs	
MINIMUM MEAN DAILY FLOW:-	0.000	CUMECs	ON 5/ 8/1990
MAXIMUM MEAN DAILY FLOW:-	1.666	CUMECs	ON 28/ 2/1991
MAXIMUM INSTANTANEOUS FLOW:-	1.924	CUMECs	ON 28/ 2/1991 AT 11:45
DRY WEATHER FLOW:-	0.006	CUMECs	

MODAL FLOW CALCULATED WITH A 11.1% CLASS INTERVAL



NATIONAL RIVERS AUTHORITY : STATION:- 8913402 MARKET WEIGHTON CANAL WHOLESEA GRANGE

ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMECS) CALENDAR YEAR:- 1992

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	31/31	29/29	31/31	30/30	31/31	30/30	31/31	31/31	30/30	31/31	30/30	31/31
CUMEC DAYS	5.356	4.764	3.998	7.390	2.582	0.683	2.091	1.869	4.107	8.052	10.66	17.17
MINIMUM	0.100	0.099	0.088	0.127	0.038	0.000	0.023	0.023	0.052	0.123	0.192	0.286
MAXIMUM	0.341	0.284	0.655	0.508	0.140	0.085	0.246	0.126	0.478	0.698	0.705	1.321
MEAN	0.173	0.164	0.129	0.246	0.083	0.023	0.067	0.060	0.137	0.260	0.355	0.554
MEDIAN	0.146	0.148	0.104	0.214	0.078	0.019	0.056	0.051	0.073	0.207	0.329	0.508

ANNUAL FLOW STATISTICS

TOTAL NUMBER OF DAYS OF RECORD:- 366/366

TOTAL FLOW:-	68.72	CUMEC DAYS	MINIMUM MEAN DAILY FLOW:-	0.000	CUMECs				
MEAN FLOW:-	0.188	CUMECs	MAXIMUM MEAN DAILY FLOW:-	1.321	CUMECs				
MEDIAN FLOW:-	0.124	CUMECs	MAXIMUM INSTANTANEOUS FLOW:-	1.768	CUMECs 6/12				
			SEVEN DAY MINIMUM FLOW:-	0.001	CUMECs 24.30/6				
PERCENTAGE OF TIME:-	10	20	30	40	50	60	70	80	90
FLOW NOT EXCEEDED:-	0.038	0.057	0.079	0.103	0.124	0.161	0.217	0.288	0.408

NATIONAL RIVERS AUTHORITY : STATION:- 8913402 MARKET WEIGHTON CANAL WHOLESALE GRANGE

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 4 OUT OF 4 PERIOD:- 1939 TO 1992 SEASON:- JAN TO DEC

"FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION:- 8913480 MIRES BECK

NORTH CAVE

ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMECS) CALENDAR YEAR:- 1992

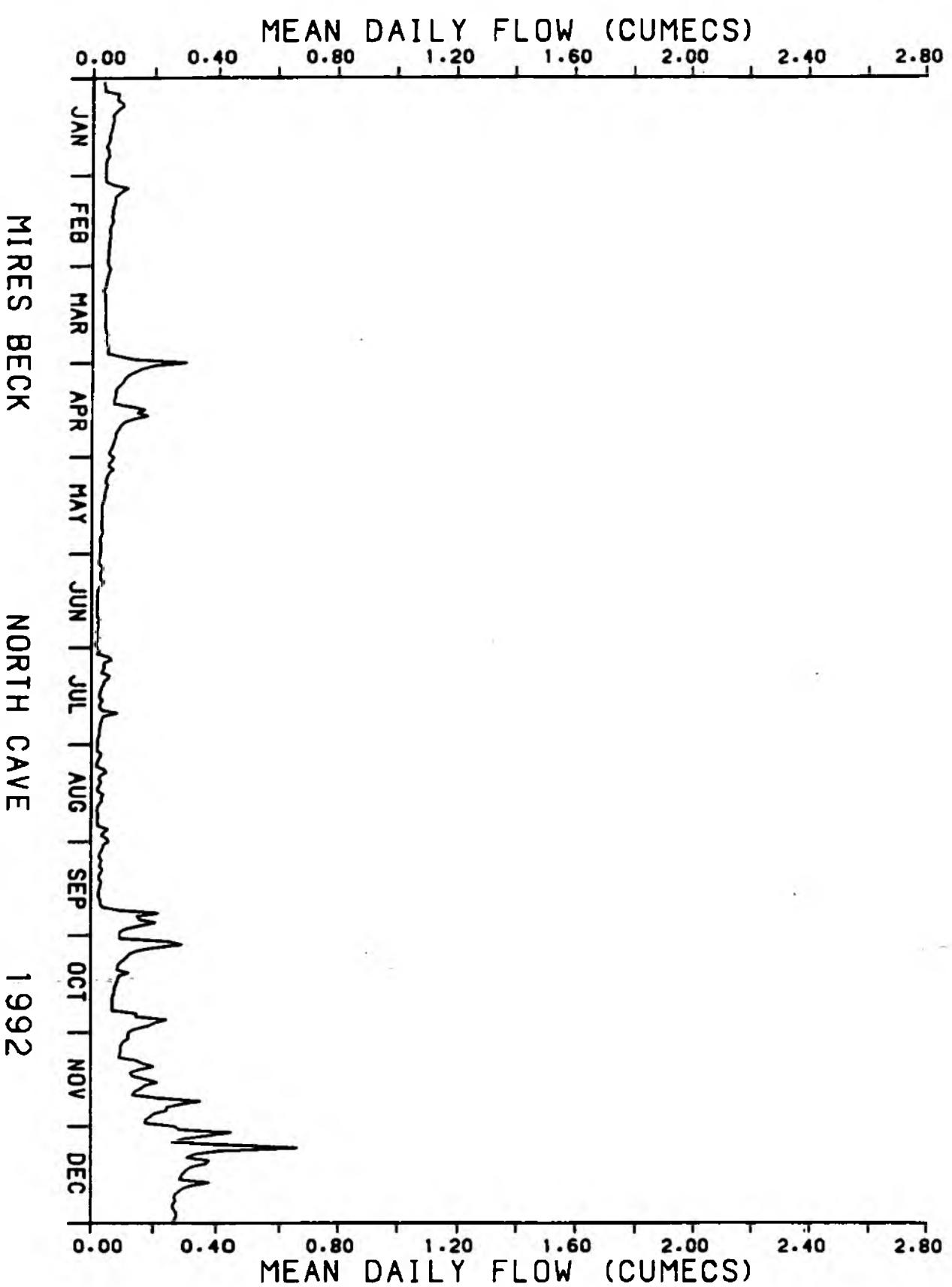
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	31/31	29/29	31/31	30/30	31/31	30/30	31/31	31/31	30/30	31/31	30/30	31/31
CUMEC DAYS	1.821	1.806	1.809	3.047	1.261	0.704	1.114	0.928	1.927	3.851	5.154	10.06
MINIMUM	0.038	0.041	0.033	0.055	0.026	0.013	0.019	0.016	0.023	0.069	0.091	0.262
MAXIMUM	0.101	0.117	0.301	0.203	0.071	0.041	0.085	0.059	0.217	0.295	0.354	0.660
MEAN	0.059	0.062	0.058	0.102	0.041	0.023	0.036	0.030	0.064	0.124	0.172	0.325
MEDIAN	0.054	0.057	0.045	0.084	0.035	0.021	0.032	0.025	0.034	0.095	0.166	0.296

ANNUAL FLOW STATISTICS

TOTAL NUMBER OF DAYS OF RECORD:- 366/366

TOTAL FLOW:-	33.48	CUMEC DAYS	MINIMUM MEAN DAILY FLOW:-	0.013	CUMECs
MEAN FLOW:-	0.091	CUMECs	MAXIMUM MEAN DAILY FLOW:-	0.660	CUMECs
MEDIAN FLOW:-	0.054	CUMECs	MAXIMUM INSTANTANEOUS FLOW:-	0.997	CUMECs 7/12
			SEVEN DAY MINIMUM FLOW:-	0.018	CUMECs 14-20/6

PERCENTAGE OF TIME:-	10	20	30	40	50	60	70	80	90
FLOW NOT EXCEEDED:-	0.024	0.030	0.038	0.044	0.054	0.069	0.088	0.137	0.245



NATIONAL RIVERS AUTHORITY : STATION:- 8913480 MIRES BECK

NORTH CAVE

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 7 OUT OF 7 PERIOD:- 1986 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:- 0.172 CUMECs

MEDIAN FLOW:- 0.121 CUMECs

MODAL FLOW:- 0.037 CUMECs

MINIMUM MEAN DAILY FLOW:- 0.013 CUMECs ON 29/ 6/1992

MAXIMUM MEAN DAILY FLOW:- 1.047 CUMECs ON 2/ 2/1986

MAXIMUM INSTANTANEOUS FLOW:- 1.229 CUMECs ON 15/ 4/1986 AT 17:30

DRY WEATHER FLOW:- 0.054 CUMECs

MODAL FLOW CALCULATED WITH A 8.3% CLASS INTERVAL

NATIONAL RIVERS AUTHORITY : STATION:- 8913480 Mires Beck

NORTH CAVE

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 7 OUT OF 7 PERIOD:- 1986 TO 1992 SEASON:- JAN TO DEC

FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION:- 8912108 RIVER NIDD

GOUTHWAITE

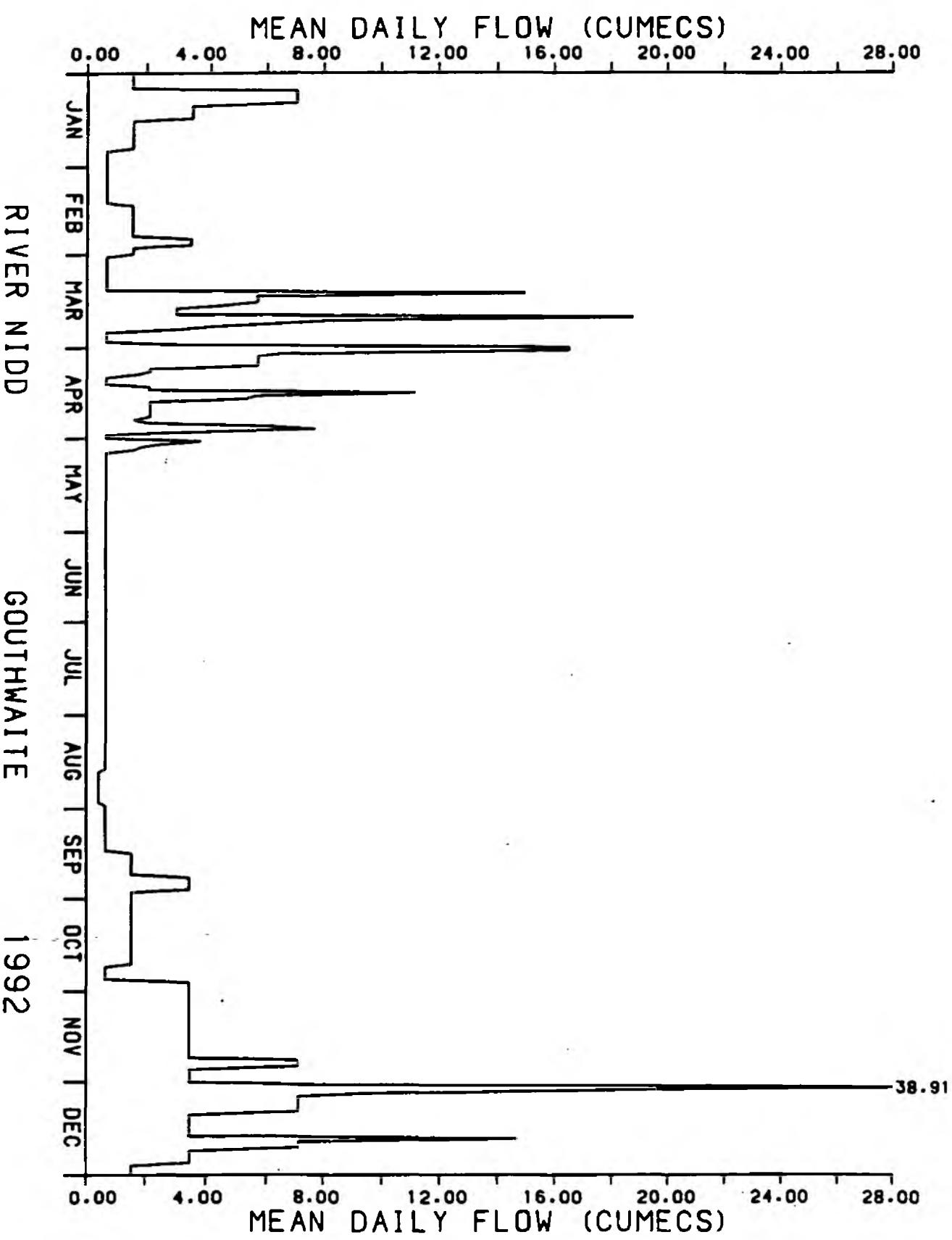
ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMECS) CALENDAR YEAR:- 1992

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	31/31	29/29	31/31	30/30	31/31	30/30	31/31	31/31	30/30	31/31	30/30	31/31
CUMEC DAYS	79.21	39.87	116.3	115.3	27.73	19.77	20.43	17.89	43.51	51.04	115.0	202.7
MINIMUM	0.659	0.659	0.659	0.659	0.659	0.659	0.659	0.428	0.659	0.659	3.471	1.539
MAXIMUM	7.104	3.471	18.82	16.52	3.795	0.659	0.659	0.659	3.471	3.471	7.104	38.91
MEAN	2.578	1.375	3.753	3.843	0.895	0.659	0.659	0.577	1.450	1.646	3.834	6.538
MEDIAN	1.539	1.539	0.659	2.140	0.659	0.659	0.659	0.659	1.539	1.539	3.471	3.471

ANNUAL FLOW STATISTICS

TOTAL NUMBER OF DAYS OF RECORD:- 316/366

TOTAL FLOW:-	849.5	CUMEC DAYS	MINIMUM MEAN DAILY FLOW:-	0.428	CUMECs				
MEAN FLOW:-	2.321	CUMECs	MAXIMUM MEAN DAILY FLOW:-	38.91	CUMECs				
MEDIAN FLOW:-	1.539	CUMECs	MAXIMUM INSTANTANEOUS FLOW:-	0.000	CUMECs				
			SEVEN DAY MINIMUM FLOW:-	0.428	CUMECs				
PERCENTAGE OF TIME:-	10	20	30	40	50	60	70	80	90
FLOW NOT EXCEEDED:-	0.659	0.659	0.659	0.659	1.539	1.539	2.140	3.471	5.081



NATIONAL RIVERS AUTHORITY : STATION:- 8912108 RIVER NIDD

GOUTHWAITE

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 47 OUT OF 47 PERIOD:- 1946 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:- 2.469 CUMECMS

MEDIAN FLOW:- 1.088 CUMECMS

MODAL FLOW:- 0.664 CUMECMS

MINIMUM MEAN DAILY FLOW:- 0.130 CUMECMS ON 6/12/1964

MAXIMUM MEAN DAILY FLOW:- 145.0 CUMECMS ON 20/9/1946

MAXIMUM INSTANTANEOUS FLOW:- 0.000 CUMECMS ON 00/0/0 AT 00:00

DRY WEATHER FLOW:- 0.023 CUMECMS

MODAL FLOW CALCULATED WITH A 7.7% CLASS INTERVAL

NATIONAL RIVERS AUTHORITY : STATION:- 8912108 RIVER NIDDA

FOUTHWAITE

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 47 OUT OF 47 PERIOD:- 1946 TO 1992 SEASON:- JAN TO DEC

FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION:- 8912106 RIVER NIDD

BIRSTWICH

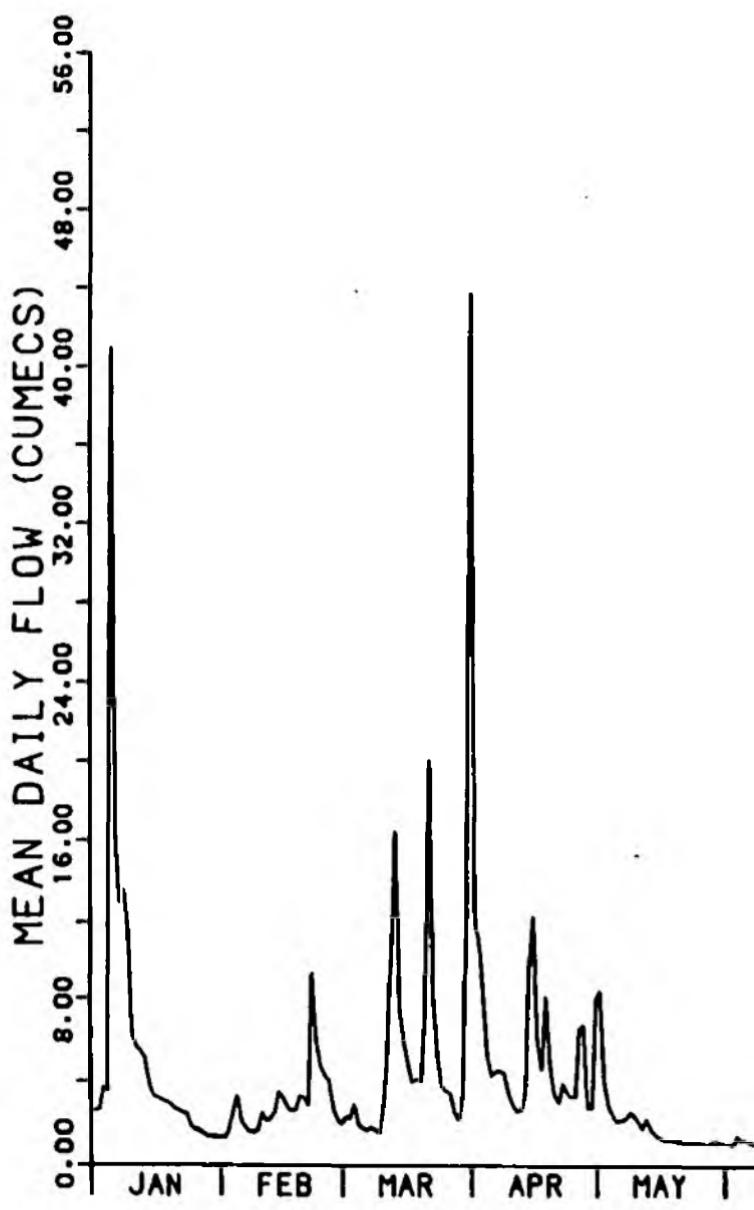
ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMECS) CALENDAR YEAR:- 1992

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	31/31	29/29	31/31	30/30	31/31	30/30	31/31	31/31	30/30	31/31	30/30	31/31
CUMEC DAYS	171.4	85.05	200.4	161.9	58.89	28.99	27.37	30.32	76.40	90.75	218.3	375.8
MINIMUM	1.294	1.284	1.572	2.468	1.099	0.805	0.760	0.562	1.072	1.101	4.122	2.167
MAXIMUM	41.08	9.356	43.82	12.37	8.453	1.538	1.390	3.892	6.459	9.433	20.26	89.45
MEAN	5.530	2.933	6.463	5.397	1.900	0.966	0.883	0.978	2.547	2.927	7.278	12.12
MEDIAN	2.890	2.469	3.748	4.487	1.304	0.892	0.851	0.787	1.963	2.293	6.065	6.422

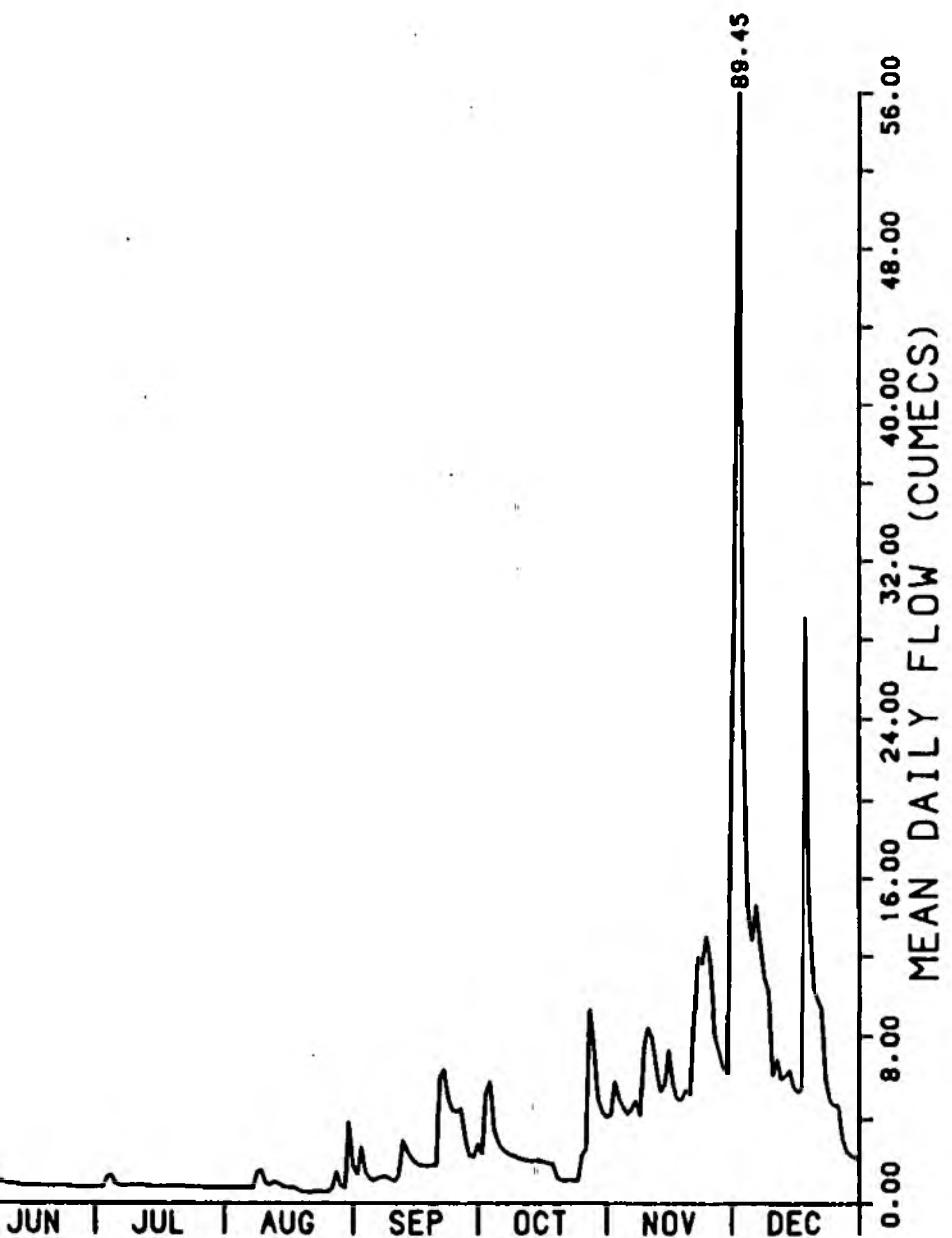
ANNUAL FLOW STATISTICS

TOTAL NUMBER OF DAYS OF RECORD:- 366/366

TOTAL FLOW:-	1526. CUMEC DAYS	MINIMUM MEAN DAILY FLOW:-	0.562 CUMECs
MEAN FLOW:-	4.168 CUMECs	MAXIMUM MEAN DAILY FLOW:-	89.45 CUMECs
MEDIAN FLOW:-	2.344 CUMECs	MAXIMUM INSTANTANEOUS FLOW:-	158.3 CUMECs 2/12
		SEVEN DAY MINIMUM FLOW:-	0.577 CUMECs 19-25/8
PERCENTAGE OF TIME:-	10 20 30 40 50 60 70 80 90		
FLOW NOT EXCEEDED:-	0.834 0.990 1.295 1.831 2.343 2.890 4.122 5.514 8.497		



RIVER NIDD



BIRSTWITH

1992

NATIONAL RIVERS AUTHORITY : STATION:- 8912106 RIVER NIDD

BIRSTWICH

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 18 OUT OF 18 PERIOD:- 1975 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:- 4.949 CUMECs

MEDIAN FLOW:- 2.385 CUMECs

MODAL FLOW:- 1.079 CUMECs

MINIMUM MEAN DAILY FLOW:- 0.392 CUMECs ON 21/ 8/1984

MAXIMUM MEAN DAILY FLOW:- 179.7 CUMECs ON 23/ 2/1991

MAXIMUM INSTANTANEOUS FLOW:- 282.8 CUMECs ON 23/ 2/1991 AT 20:00

DRY WEATHER FLOW:- 0.836 CUMECs

MODAL FLOW CALCULATED WITH A 4.8% CLASS INTERVAL

NATIONAL RIVERS AUTHORITY : STATION:- 8912106 RIVER NIDD

BIRSTWICH

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 18 OUT OF 18 PERIOD:- 1975 TO 1992 SEASON:- JAN TO DEC

' FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION:- 8912104 RIVER NIDD HUNSINGORE

 ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMECS) CALENDAR YEAR:- 1992

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	31/31	29/29	31/31	30/30	31/31	30/30	31/31	31/31	30/30	31/31	30/30	31/31
CUMEC DAYS	287.0	159.4	299.2	272.9	108.3	62.22	61.35	67.63	143.2	188.4	395.7	575.0
MINIMUM	2.594	2.555	3.345	4.601	2.058	1.662	1.441	1.285	1.927	2.017	6.404	4.510
MAXIMUM	62.51	11.98	58.35	23.57	13.21	3.537	5.443	5.726	18.33	22.06	43.70	121.6
MEAN	9.259	5.498	9.651	9.096	3.495	2.074	1.979	2.182	4.774	6.077	13.19	18.55
MEDIAN	4.862	5.039	6.400	7.540	2.836	1.757	1.672	1.651	3.255	3.986	10.83	12.87

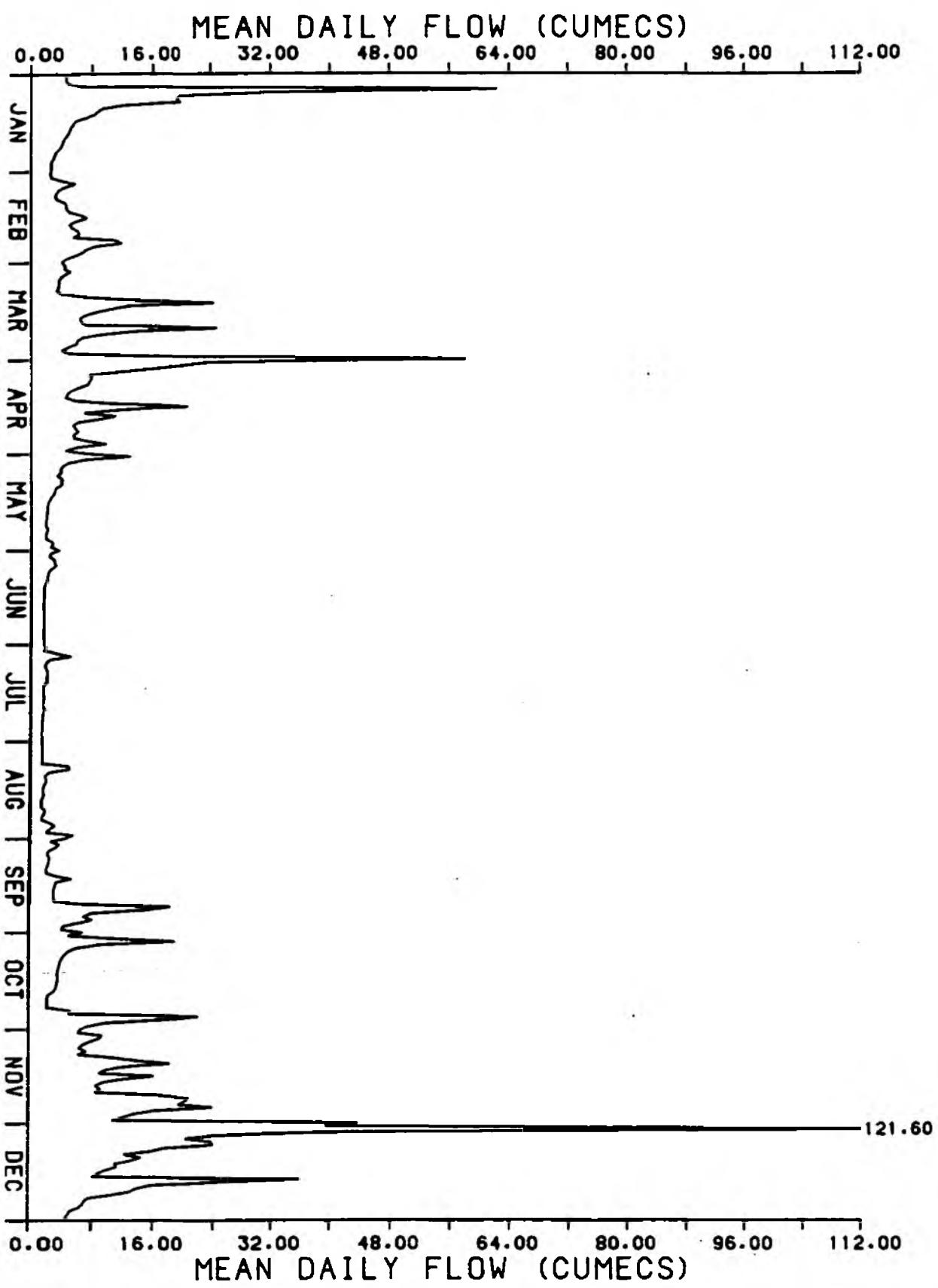
ANNUAL FLOW STATISTICS

TOTAL NUMBER OF DAYS OF RECORD:- 366/366

TOTAL FLOW:-	2620.	CUMEC DAYS	MINIMUM MEAN DAILY FLOW:-	1.285	CUMECs
MEAN FLOW:-	7.160	CUMECs	MAXIMUM MEAN DAILY FLOW:-	121.6	CUMECs
MEDIAN FLOW:-	4.444	CUMECs	MAXIMUM INSTANTANEOUS FLOW:-	211.3	CUMECs 2/12
			SEVEN DAY MINIMUM FLOW:-	1.453	CUMECs 19.25/8

PERCENTAGE OF TIME:-	10	20	30	40	50	60	70	80	90
FLOW NOT EXCEEDED:-	1.692	2.065	2.629	3.492	4.430	5.506	6.974	9.408	15.45

RIVER NIDD
HUNSINGORE 1992



NATIONAL RIVERS AUTHORITY : STATION:- 8912104 RIVER NIDD

HUNSINGORE

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 51 OUT OF 51 PERIOD:- 1942 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:- 7.949 CUMECs

MEDIAN FLOW:- 4.371 CUMECs

MODAL FLOW:- 2.392 CUMECs

MINIMUM MEAN DAILY FLOW:- 0.026 CUMECs ON 20/ 5/1984

MAXIMUM MEAN DAILY FLOW:- 219.4 CUMECs ON 28/12/1978

MAXIMUM INSTANTANEOUS FLOW:- 302.1 CUMECs ON 12/ 9/1968 AT 19:30

DRY WEATHER FLOW:- 1.708 CUMECs

MODAL FLOW CALCULATED WITH A 5.9% CLASS INTERVAL

The stage discharge relationship was altered in May 1981, by the opening up of sluices
(previously disused) alongside Hunsingore weir.

The station has been recalibrated and flow records processed from June 1981.

NATIONAL RIVERS AUTHORITY : STATION:- 8912104 RIVER NID

HUNSINGORE

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 51 OUT OF 51 PERIOD:- 1942 TO 1992 SEASON:- JAN TO DEC

FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION:- 8912102 RIVER NIDD

SKIP BRIDGE

ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMECS) CALENDAR YEAR:- 1992

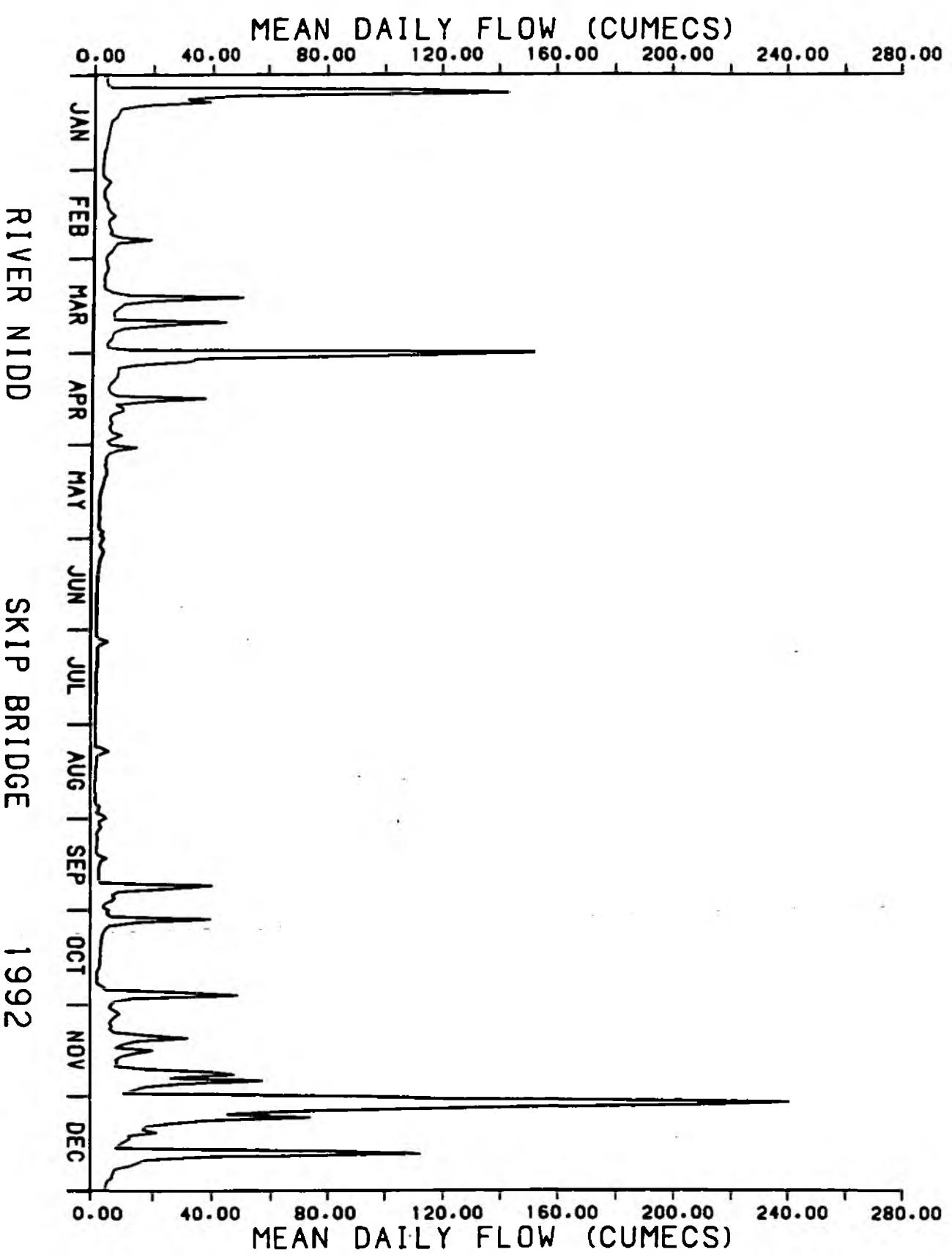
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	31/31	29/29	31/31	30/30	31/31	30/30	31/31	31/31	30/30	31/31	30/30	31/31
CUMEC DAYS	516.1	158.6	450.9	404.2	110.5	61.31	60.32	66.08	168.8	251.4	566.2	1382.
MINIMUM	2.625	2.585	3.117	4.296	2.040	1.546	1.435	1.317	1.916	2.139	6.184	4.618
MAXIMUM	143.8	19.63	152.7	107.0	15.04	3.503	5.203	5.446	40.32	48.92	90.97	240.8
MEAN	16.65	5.470	14.55	13.47	3.563	2.044	1.946	2.132	5.628	8.110	18.87	44.56
MEDIAN	4.833	4.770	6.096	6.881	2.974	1.763	1.773	1.635	3.008	3.861	10.26	16.46

ANNUAL FLOW STATISTICS

TOTAL NUMBER OF DAYS OF RECORD:- 366/366

TOTAL FLOW:-	4196. CUMEC DAYS	MINIMUM MEAN DAILY FLOW:-	1.317 CUMECs
MEAN FLOW:-	11.46 CUMECs	MAXIMUM MEAN DAILY FLOW:-	240.8 CUMECs
MEDIAN FLOW:-	4.213 CUMECs	MAXIMUM INSTANTANEOUS FLOW:-	282.5 CUMECs 2/1a
		SEVEN DAY MINIMUM FLOW:-	1.447 CUMECs 28/7-3/8

PERCENTAGE OF TIME:-	10	20	30	40	50	60	70	80	90
FLOW NOT EXCEEDED:-	1.671	2.072	2.657	3.384	4.211	5.298	6.572	9.171	22.04



NATIONAL RIVERS AUTHORITY : STATION:- 8912102 RIVER NIDD

SKIP BRIDGE

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 13 OUT OF 13 PERIOD:- 1980 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:-	13.89	CUMECS	
MEDIAN FLOW:-	4.403	CUMECS	
MODAL FLOW:-	2.052	CUMECS	
MINIMUM MEAN DAILY FLOW:-	1.032	CUMECS	ON 15/ 9/1990
MAXIMUM MEAN DAILY FLOW:-	275.7	CUMECS	ON 5/ 1/1982
MAXIMUM INSTANTANEOUS FLOW:-	300.7	CUMECS	ON 24/ 2/1991 AT 10:45
DRY WEATHER FLOW:-	1.621	CUMECS	

MODAL FLOW CALCULATED WITH A 6.3% CLASS INTERVAL

The high flow record is suspect.

This weir is subject to drowning caused by backing up from the River Ouse.

A downstream chart record is available for part of the period of record.

NATIONAL RIVERS AUTHORITY : STATION:- 8912102 RIVER NIDD

SKIP BRIDGE

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 13 OUT OF 13 PERIOD:- 1980 TO 1992 SEASON:- JAN TO DEC

FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION:- 8911715 OULTON BECK FARRER LANE

ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMECS) CALENDAR YEAR:- 1992

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	31/31	29/29	31/31	30/30	31/31	30/30	31/31	31/31	30/30	31/31	30/30	31/31
CUMEC DAYS	3.981	1.538	2.364	2.341	1.531	1.265	1.796	2.089	2.327	4.767	7.399	8.000
MINIMUM	0.047	0.041	0.033	0.044	0.026	0.019	0.023	0.019	0.025	0.038	0.088	0.100
MAXIMUM	1.063	0.091	0.347	0.211	0.136	0.208	0.278	0.407	0.376	0.756	1.106	0.761
MEAN	0.128	0.053	0.076	0.078	0.049	0.042	0.058	0.067	0.078	0.154	0.247	0.258
MEDIAN	0.070	0.049	0.052	0.063	0.039	0.031	0.038	0.044	0.037	0.065	0.201	0.205

ANNUAL FLOW STATISTICS

TOTAL NUMBER OF DAYS OF RECORD:- 366/366

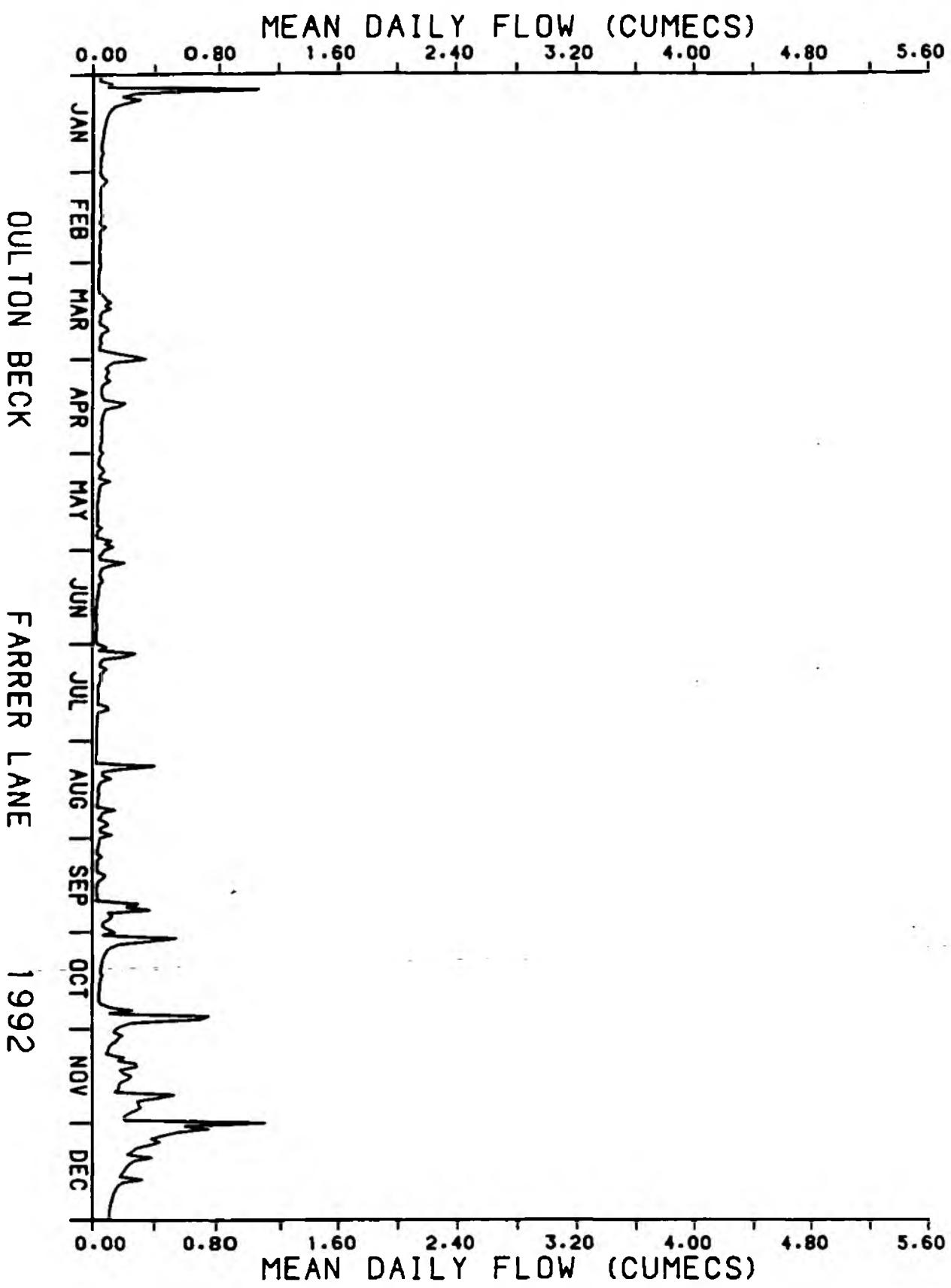
TOTAL FLOW:- 39.40 CUMEC DAYS MINIMUM MEAN DAILY FLOW:- 0.019 CUMECs

MEAN FLOW:- 0.108 CUMECs MAXIMUM MEAN DAILY FLOW:- 1.100 CUMECs

MEDIAN FLOW:- 0.056 CUMECs MAXIMUM INSTANTANEOUS FLOW:- 2.060 CUMECs 30/11
SEVEN DAY MINIMUM FLOW:- 0.022 CUMECs 24-29/6

PERCENTAGE OF TIME:- 10 20 30 40 50 60 70 80 90

FLOW NOT EXCEEDED:- 0.028 0.036 0.044 0.049 0.056 0.071 0.100 0.144 0.237



NATIONAL RIVERS AUTHORITY : STATION:- 8911715 OULTON BECK

FARRER LANE

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 6 OUT OF 6 PERIOD:- 1987 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:- 0.125 CUMECs

MEDIAN FLOW:- 0.073 CUMECs

MODAL FLOW:- 0.027 CUMECs

MINIMUM MEAN DAILY FLOW:- 0.013 CUMECs ON 7/ 9/1991

MAXIMUM MEAN DAILY FLOW:- 1.857 CUMECs ON 7/ 4/1987

MAXIMUM INSTANTANEOUS FLOW:- 2.908 CUMECs ON 07/ 4/1987 AT 17:15

DRY WEATHER FLOW:- 0.027 CUMECs

MODAL FLOW CALCULATED WITH A 12.5% CLASS INTERVAL

NATIONAL RIVERS AUTHORITY : STATION:- 8911715 OULTON BECK

FARRER LANE

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 6 OUT OF 6 PERIOD:- 1987 TO 1992 SEASON:- JAN TO DEC

FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION:- 8912405 RIVER OUSE

SKELETON

ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMECS) CALENDAR YEAR:- 1992

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	31/31	29/29	31/31	30/30	31/31	30/30	31/31	31/31	30/30	31/31	30/30	31/31
CUMEC DAYS	1379.	1073.	1524.	1823.	676.2	282.6	345.8	584.8	1020.	949.7	2138.	3657.
MINIMUM	13.72	13.55 ¹	19.99	25.65	10.19	6.133	7.225	7.347	14.78	12.10	29.79	26.43
MAXIMUM	235.3	144.0	193.1	241.9	76.80	15.37	22.66	93.18	101.0	125.3	138.0	458.6
MEAN	44.49	36.99	49.15	60.75	21.81	9.419	11.15	18.87	34.01	30.64	71.27	118.0
MEDIAN	24.30	28.50	32.81	43.16	16.75	8.186	10.45	10.71	27.80	18.17	63.43	65.71

ANNUAL FLOW STATISTICS

TOTAL NUMBER OF DAYS OF RECORD:- 366/366

TOTAL FLOW:- 15450. CUMEC DAYS

MINIMUM MEAN DAILY FLOW:- 6.133 CUMECs

MEAN FLOW:- 42.22 CUMECs

MAXIMUM MEAN DAILY FLOW:- 458.6 CUMECs

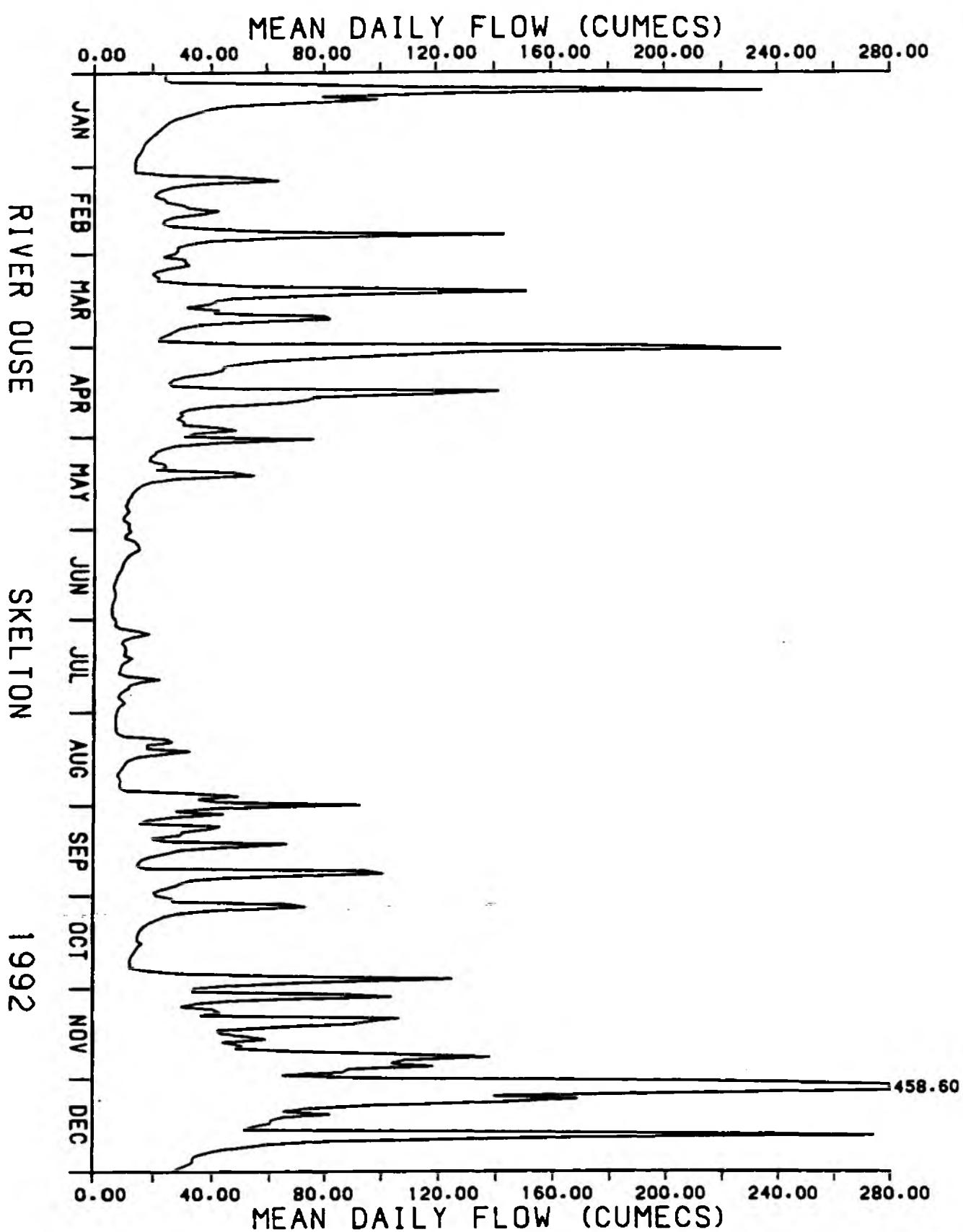
MEDIAN FLOW:- 26.80 CUMECs

MAXIMUM INSTANTANEOUS FLOW:- 480.5 CUMECs 3/12

SEVEN DAY MINIMUM FLOW:- 6.476 CUMECs 23-29/6

PERCENTAGE OF TIME:- 10 20 30 40 50 60 70 80 90

FLOW NOT EXCEEDED:- 9.055 11.98 15.25 21.33 26.79 31.54 42.02 59.02 93.18



NATIONAL RIVERS AUTHORITY : STATION:- 3912405 RIVER OUSE SKELTON

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 23 OUT OF 23 PERIOD:- 1970 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:- 49.65 CUMECMS

MEDIAN FLOW:- 27.11 CUMECMS

MODAL FLOW:- 8.829 CUMECMS

MINIMUM MEAN DAILY FLOW:- 3.922 CUMECMS ON 19/ 8/1976

MAXIMUM MEAN DAILY FLOW:- 607.5 CUMECMS ON 5/ 1/1982

MAXIMUM INSTANTANEOUS FLOW:- 622.0 CUMECMS ON 05/ 1/1982 AT 02:00

DRY WEATHER FLOW:- 7.265 CUMECMS

MODAL FLOW CALCULATED WITH A 2.2% CLASS INTERVAL

This station has been recalibrated.

The new ratings apply from the start of the record but, to date,
only levels back to January 1982 have been reprocessed.

Long period analyses are available for the period 1982 to 1991.

NATIONAL RIVERS AUTHORITY : STATION:- 8912405 RIVER OUSE

SKELTON

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 23 OUT OF 23 PERIOD:- 1970 TO 1992 : SEASON:- JAN TO DEC

FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION:- 8912515 PICKERING BECK INGS BRIDGE

ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMECS) CALENDAR YEAR:- 1992

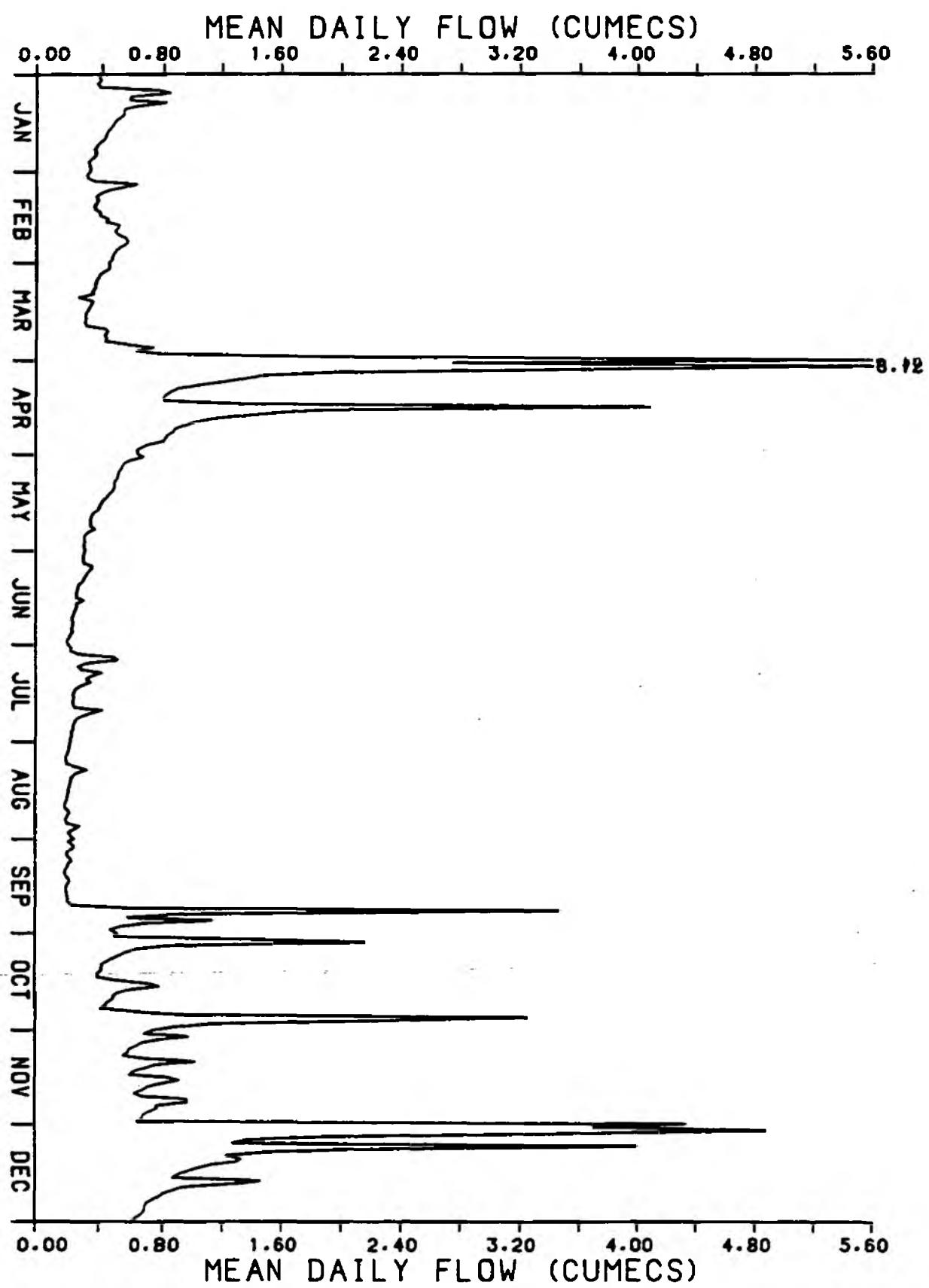
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	31/31	29/29	31/31	30/30	31/31	30/30	31/31	31/31	30/30	31/31	30/30	31/31
CUMEC DAYS	14.61	13.09	20.66	43.83	13.07	8.044	8.988	6.803	13.26	24.76	25.52	44.31
MINIMUM	0.325	0.317	0.267	0.630	0.306	0.197	0.221	0.187	0.187	0.391	0.537	0.593
MAXIMUM	0.849	0.640	6.602	6.124	0.685	0.358	0.508	0.329	3.477	3.258	4.344	4.883
MEAN	0.471	0.452	0.666	1.461	0.422	0.268	0.290	0.219	0.442	0.799	0.851	1.429
MEDIAN	0.421	0.441	0.382	0.966	0.404	0.260	0.255	0.211	0.217	0.518	0.703	1.023

ANNUAL FLOW STATISTICS

TOTAL NUMBER OF DAYS OF RECORD:- 366/366

TOTAL FLOW:-	236.9	CUMEC DAYS	MINIMUM MEAN DAILY FLOW:-	0.187	CUMECs						
MEAN FLOW:-	0.647	CUMECs	MAXIMUM MEAN DAILY FLOW:-	6.602	CUMECs						
MEDIAN FLOW:-	0.430	CUMECs	MAXIMUM INSTANTANEOUS FLOW:-	8.842	CUMECs 30/11						
			SEVEN DAY MINIMUM FLOW:-	0.199	CUMECs 16-22/8						
PERCENTAGE OF TIME:-	10	20	30	40	50	60	70	80	90		
FLOW NOT EXCEEDED:-	0.217	0.246	0.319	0.369	0.429	0.506	0.629	0.782	1.112		

PICKERING BECK INGS BRIDGE 1992



NATIONAL RIVERS AUTHORITY : STATION:- 8912515 PICKERING BECK INGS BRIDGE

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 16 OUT OF 16 PERIOD:- 1977 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:- 0.833 CUMECs

MEDIAN FLOW:- 0.581 CUMECs

MODAL FLOW:- 0.368 CUMECs

MINIMUM MEAN DAILY FLOW:- 0.151 CUMECs ON 23/ 9/1990

MAXIMUM MEAN DAILY FLOW:- 17.95 CUMECs ON 29/ 3/1979

MAXIMUM INSTANTANEOUS FLOW:- 21.90 CUMECs ON 29/ 3/1979 AT 09:45

DRY WEATHER FLOW:- 0.280 CUMECs

MODAL FLOW CALCULATED WITH A 8.3% CLASS INTERVAL

This record should be used with caution.

It was designed as a low flow measuring station, therefore at higher flows
it can only be approximate.

NATIONAL RIVERS AUTHORITY : STATION:- 8912515 PICKERING BECK INGS BRIDGE

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 16 OUT OF 16 PERIOD:- 1977 TO 1992 SEASON:- JAN TO DEC

' FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION:- 8912831 POCKLINGTON CANAL F THORNTON LOCK

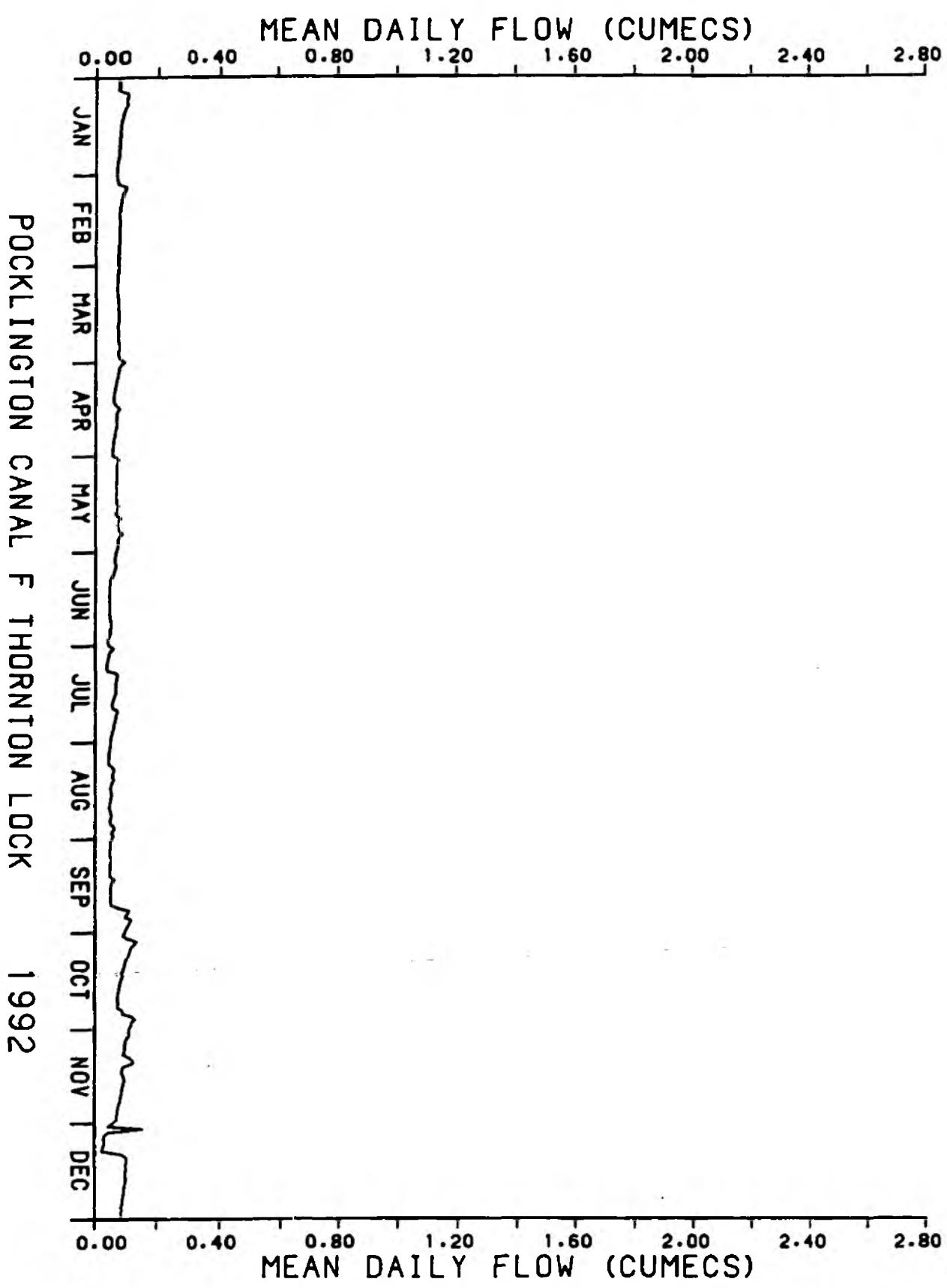
ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMECS) CALENDAR YEAR:- 1992

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	31/31	29/29	31/31	30/30	31/31	30/30	31/31	31/31	30/30	31/31	30/30	31/31
CUMEC DAYS	2.444	2.269	2.332	1.998	2.271	1.599	1.841	1.672	2.060	3.067	2.753	2.477
MINIMUM	0.067	0.067	0.070	0.056	0.068	0.041	0.040	0.045	0.048	0.074	0.059	0.024
MAXIMUM	0.100	0.095	0.096	0.082	0.090	0.069	0.077	0.064	0.121	0.138	0.125	0.157
MEAN	0.079	0.078	0.075	0.067	0.073	0.053	0.059	0.054	0.069	0.099	0.092	0.080
MEDIAN	0.075	0.078	0.074	0.066	0.071	0.051	0.062	0.054	0.054	0.092	0.092	0.089

ANNUAL FLOW STATISTICS

TOTAL NUMBER OF DAYS OF RECORD:- 366/366

TOTAL FLOW:-	26.78	CUMEC DAYS	MINIMUM MEAN DAILY FLOW:-	0.024	CUMECs				
MEAN FLOW:-	0.073	CUMECs	MAXIMUM MEAN DAILY FLOW:-	0.157	CUMECs				
MEDIAN FLOW:-	0.073	CUMECs	MAXIMUM INSTANTANEOUS FLOW:-	0.174	CUMECs 2/12				
			SEVEN DAY MINIMUM FLOW:-	0.030	CUMECs 4-9/12				
PERCENTAGE OF TIME:-	10	20	30	40	50	60	70	80	90
FLOW NOT EXCEEDED:-	0.050	0.055	0.063	0.069	0.073	0.075	0.078	0.083	0.098



NATIONAL RIVERS AUTHORITY : STATION:- 8912831 POCKLINGTON CANAL F THORNTON LOCK

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 9 OUT OF 9 PERIOD:- 1984 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:-	0.083	CUMECs	
MEDIAN FLOW:-	0.082	CUMECs	
MODAL FLOW:-	0.069	CUMECs	
MINIMUM MEAN DAILY FLOW:-	0.000	CUMECs	ON 9/ 3/1986
MAXIMUM MEAN DAILY FLOW:-	0.183	CUMECs	ON 14/ 5/1987
MAXIMUM INSTANTANEOUS FLOW:-	0.215	CUMECs	ON 25/ 8/1986 AT 07:45
DRY WEATHER FLOW:-	0.012	CUMECs	

MODAL FLOW CALCULATED WITH A 10.0% CLASS INTERVAL

NATIONAL RIVERS AUTHORITY : STATION:- 8912831 POCKLINGTON CANAL F THORNTON LOCK

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 9 OUT OF 9 PERIOD:- 1984 TO 1992 SEASON:- JAN TO DEC

FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION:- 8912580 RIVER RICCAL CROOK HOUSE FARM

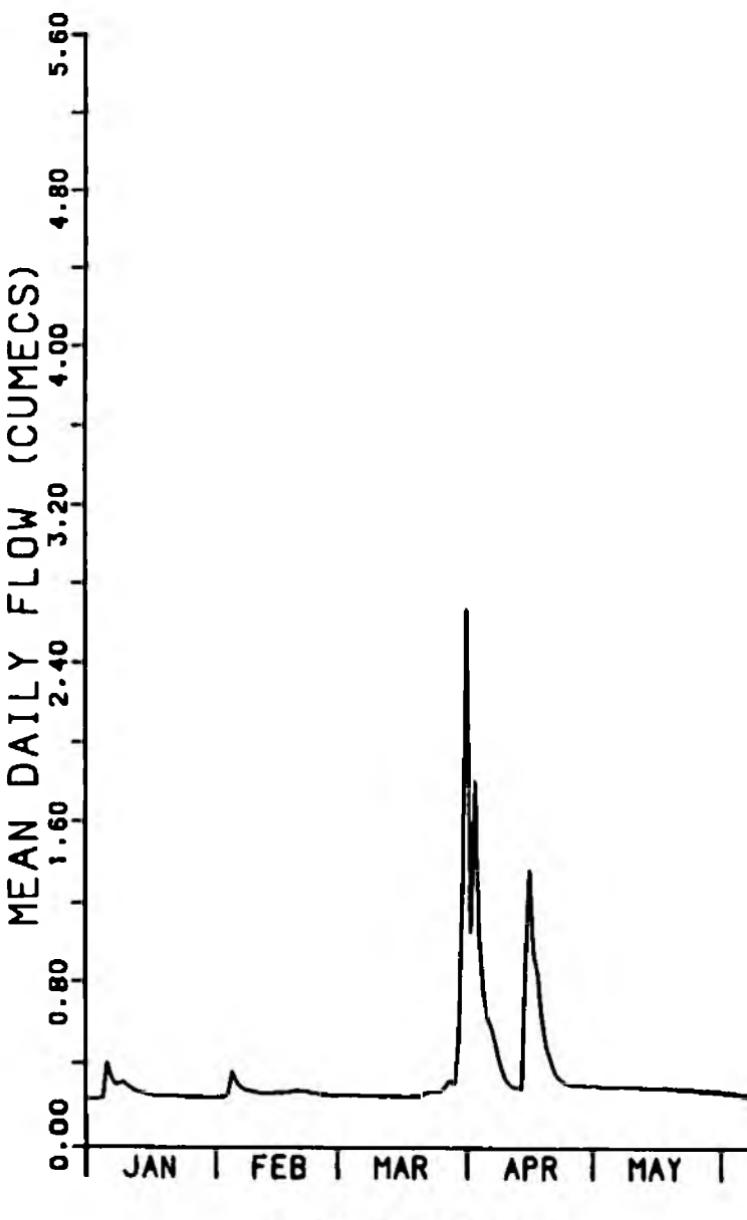
ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMECs) CALENDAR YEAR:- 1992

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	31/31	29/29	31/31	30/30	31/31	30/30	31/31	31/31	30/30	31/31	30/30	31/31
CUMEC DAYS	7.729	7.331	11.23	16.75	8.330	6.750	6.642	6.322	6.595	8.598	10.30	30.73
MINIMUM	0.219	0.225	0.228	0.269	0.255	0.212	0.201	0.194	0.189	0.222	0.253	0.380
MAXIMUM	0.411	0.364	2.679	1.828	0.283	0.251	0.229	0.224	0.410	0.739	1.613	5.279
MEAN	0.249	0.253	0.362	0.558	0.269	0.225	0.214	0.204	0.220	0.277	0.343	0.991
MEDIAN	0.232	0.247	0.235	0.377	0.271	0.218	0.215	0.202	0.203	0.240	0.284	0.713

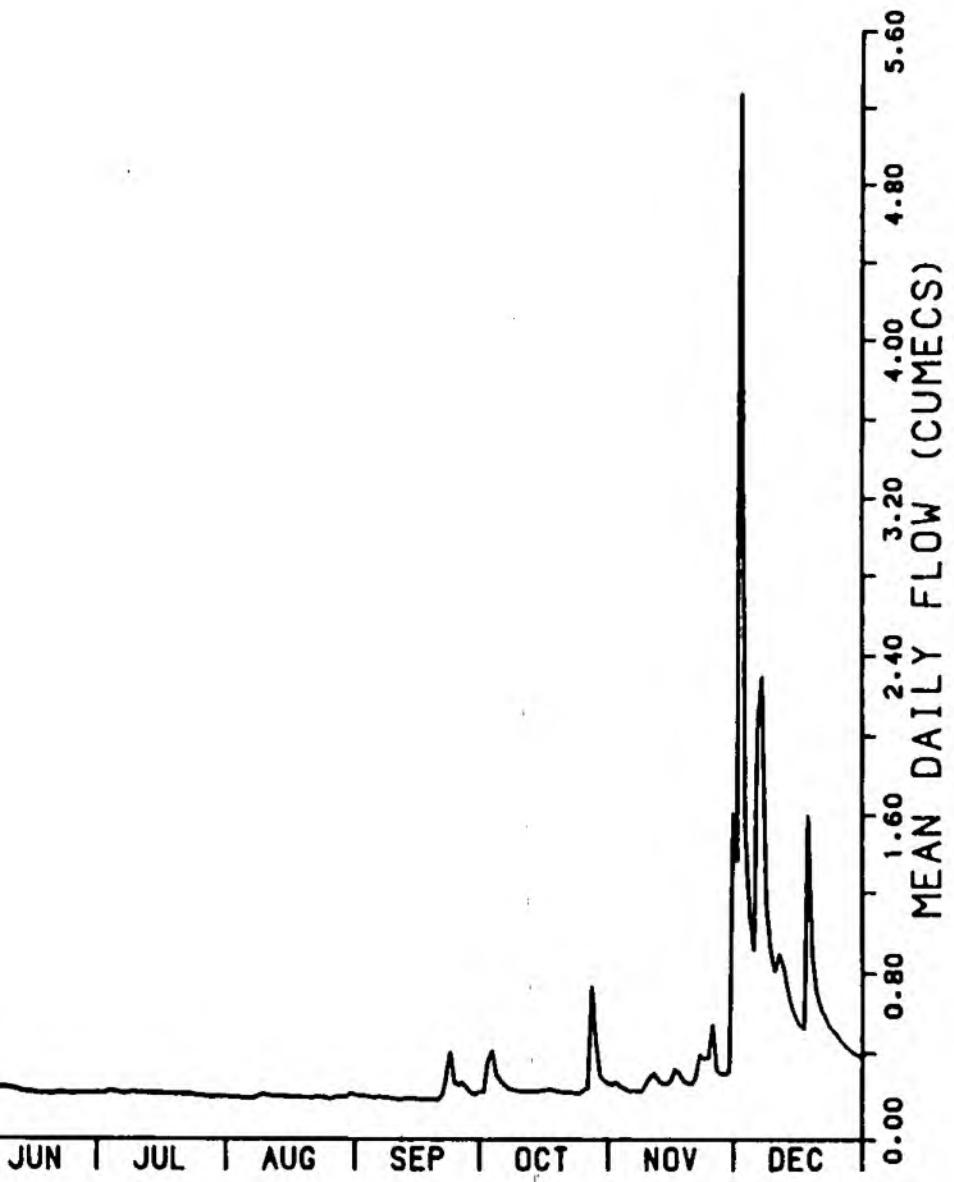
ANNUAL FLOW STATISTICS

TOTAL NUMBER OF DAYS OF RECORD:- 366/366

TOTAL FLOW:-	127.3 CUMEC DAYS	MINIMUM MEAN DAILY FLOW:-	0.189 CUMECs
MEAN FLOW:-	0.348 CUMECs	MAXIMUM MEAN DAILY FLOW:-	5.279 CUMECs
MEDIAN FLOW:-	0.242 CUMECs	MAXIMUM INSTANTANEOUS FLOW:-	11.26 CUMECs 2/12
		SEVEN DAY MINIMUM FLOW:-	0.193 CUMECs 14-20/9
PERCENTAGE OF TIME:-	10	20	30
FLOW NOT EXCEEDED:-	0.203	0.215	0.224
	0.233	0.242	0.258
	0.273	0.308	0.545
			90



RIVER RICCAL



CROOK HOUSE FARM 1992

NATIONAL RIVERS AUTHORITY : STATION:- 8912580 RIVER RICCAL

CROOK HOUSE FARM

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 16 OUT OF 16 PERIOD:- 1977 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:- 0.451 CUMECs

MEDIAN FLOW:- 0.272 CUMECs

MODAL FLOW:- 0.221 CUMECs

MINIMUM MEAN DAILY FLOW:- 0.172 CUMECs ON 11/ 9/1990

MAXIMUM MEAN DAILY FLOW:- 12.21 CUMECs ON 3/ 1/1982

MAXIMUM INSTANTANEOUS FLOW:- 18.38 CUMECs ON 03/ 1/1982 AT 02:15

DRY WEATHER FLOW:- 0.203 CUMECs

MODAL FLOW CALCULATED WITH A 6.7% CLASS INTERVAL

This record should be used with caution.

It was designed as a low flow measuring station , therefore at higher flows
it can only be approximate.

NATIONAL RIVERS AUTHORITY : STATION:- 8912580 RIVER RICCAL

CROOK HOUSE FARM

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 15 OUT OF 16 PERIOD:- 1977 TO 1992 SEASON:- JAN TO DEC

' 'FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION:- 8910203 RIVER ROTHER WHITTINGTON

ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMECS) CALENDAR YEAR:- 1992

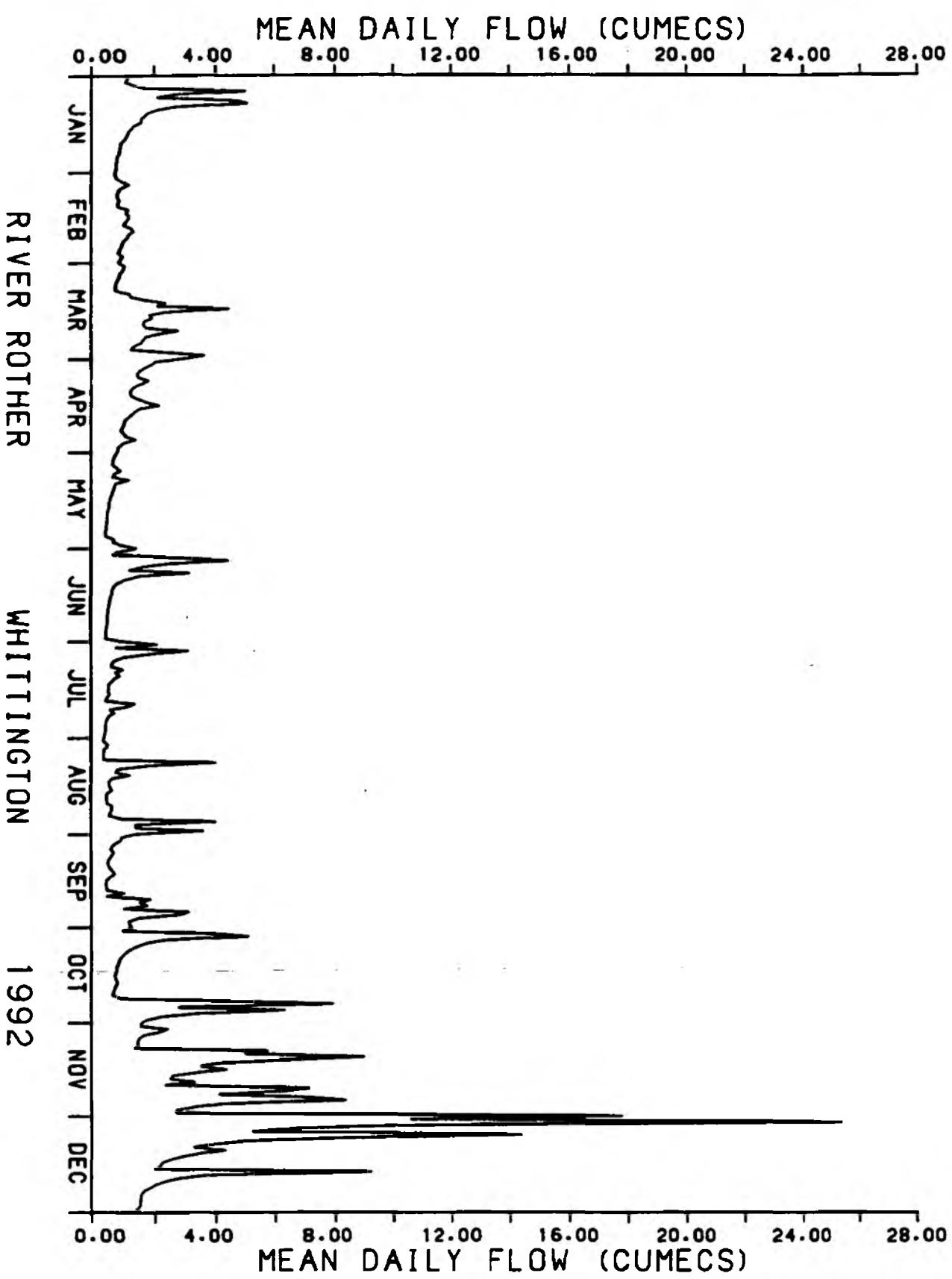
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	31/31	29/29	31/31	30/30	31/31	30/30	31/31	31/31	30/30	31/31	30/30	31/31
CUMEC DAYS	50.82	27.87	53.46	39.87	21.58	32.00	26.16	32.19	30.53	60.80	150.2	148.0
MINIMUM	0.739	0.724	0.747	0.830	0.465	0.461	0.413	0.388	0.486	0.665	1.327	1.260
MAXIMUM	5.077	1.306	4.461	2.211	1.395	4.444	3.136	4.035	3.141	7.956	17.81	20.58
MEAN	1.639	0.961	1.725	1.329	0.696	1.067	0.844	1.038	1.018	1.961	4.340	4.775
MEDIAN	1.106	0.939	1.616	1.271	0.682	0.654	0.642	0.625	0.747	0.990	5.402	2.840

ANNUAL FLOW STATISTICS

TOTAL NUMBER OF DAYS OF RECORD:- 366/366

TOTAL FLOW:-	653.5 CUMEC DAYS	MINIMUM MEAN DAILY FLOW:-	0.588 CUMECs
MEAN FLOW:-	1.786 CUMECs	MAXIMUM MEAN DAILY FLOW:-	25.38 CUMECs
MEDIAN FLOW:-	1.027 CUMECs	MAXIMUM INSTANTANEOUS FLOW:-	37.09 CUMECs 2/12
		SEVEN DAY MINIMUM FLOW:-	0.436 CUMECs 31/7-6/8

PERCENTAGE OF TIME:-	10	20	30	40	50	60	70	80	90
FLOW NOT EXCEEDED:-	0.530	0.658	0.767	0.870	1.023	1.266	1.550	2.211	3.674



NATIONAL RIVERS AUTHORITY : STATION:- 8910203 RIVER ROTHER

WHITTINGTON

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 29 OUT OF 29 PERIOD:- 1964 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:- 1.978 CUMECMS

MEDIAN FLOW:- 1.060 CUMECMS

MODAL FLOW:- 0.534 CUMECMS

MINIMUM MEAN DAILY FLOW:- 0.090 CUMECMS ON 18/ 8/1965

MAXIMUM MEAN DAILY FLOW:- 71.03 CUMECMS ON 22/ 6/1982

MAXIMUM INSTANTANEOUS FLOW:- 97.03 CUMECMS ON 22/ 6/1982 AT 01:45

DRY WEATHER FLOW:- 0.407 CUMECMS

MODAL FLOW CALCULATED WITH A 9.1% CLASS INTERVAL

During 1979 a new measuring weir was constructed a short distance downstream of the old station.

The station has been calibrated and flow records processed from November 1979.

NATIONAL RIVERS AUTHORITY : STATION:- 8910203 RIVER ROTHER

WHITTINGTON

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 29 OUT OF 29 PERIOD:- 1964 TO 1992 SEASON:- JAN TO DEC

"FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION:- 8910304 RIVER ROTHER WOODHOUSE MILL

ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMECS) CALENDAR YEAR:- 1992

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	31/31	29/29	31/31	30/30	31/31	30/30	31/31	31/31	30/30	31/31	30/30	31/31
CUMEC DAYS	95.67	51.92	87.89	66.36	43.04	58.20	54.31	62.49	70.22	111.5	234.9	274.1
MINIMUM	1.534	1.493 ¹	1.447	1.541	0.831	0.853	0.770	0.765	0.975	1.309	2.182	2.515
MAXIMUM	11.17	2.221	6.530	3.633	4.103	8.472	5.590	7.008	9.812	12.94	27.38	40.01
MEAN	3.086	1.790	2.835	2.212	1.388	1.940	1.752	2.016	2.341	3.598	7.830	8.841
MEDIAN	2.197	1.752	2.485	2.054	1.268	1.197	1.266	1.308	1.459	2.127	6.428	5.438

ANNUAL FLOW STATISTICS

TOTAL NUMBER OF DAYS OF RECORD:- 366/366

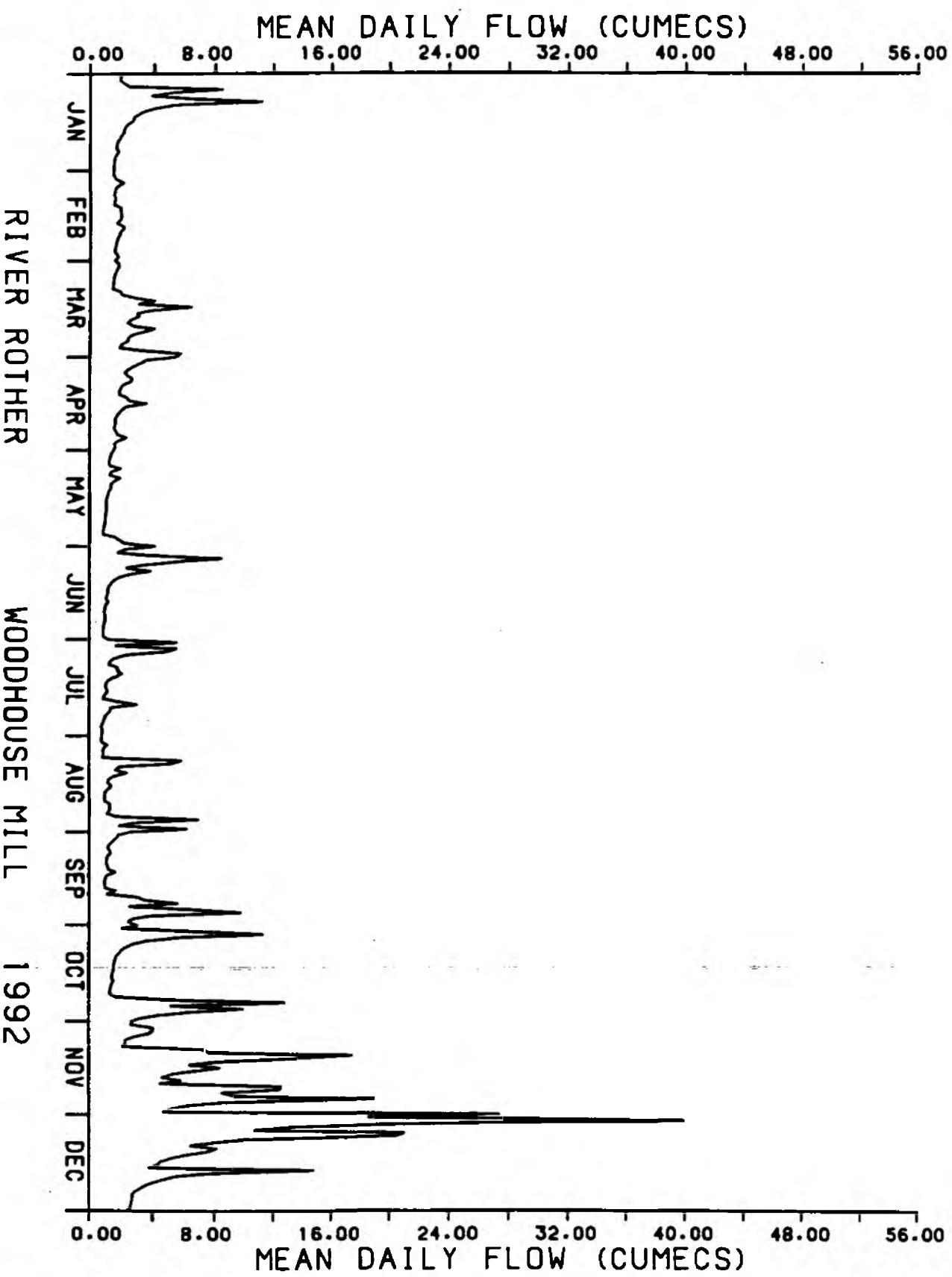
TOTAL FLOW:- 1211. CUMEC DAYS MINIMUM MEAN DAILY FLOW:- 0.765 CUMECs

MEAN FLOW:- 3.308 CUMECs MAXIMUM MEAN DAILY FLOW:- 40.01 CUMECs

MEDIAN FLOW:- 1.922 CUMECs MAXIMUM INSTANTANEOUS FLOW:- 46.03 CUMECs 2/12
SEVEN DAY MINIMUM FLOW:- 0.808 CUMECs 27/7-2/8

PERCENTAGE OF TIME:- 10 20 30 40 50 60 70 80 90

FLOW NOT EXCEEDED:- 1.001 1.261 1.536 1.696 1.921 2.347 2.863 4.066 6.756



NATIONAL RIVERS AUTHORITY : STATION:- 8910304 RIVER ROTHER

WOODHOUSE MILL

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 17 OUT OF 17 PERIOD:- 1976 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:- 4.424 CUMECs

MEDIAN FLOW:- 2.615 CUMECs

MODAL FLOW:- 1.378 CUMECs

MINIMUM MEAN DAILY FLOW:- 0.639 CUMECs ON 26/ 8/1976

MAXIMUM MEAN DAILY FLOW:- 78.32 CUMECs ON 29/12/1978

MAXIMUM INSTANTANEOUS FLOW:- 105.4 CUMECs ON 23/ 6/1982 AT 12:30

DRY WEATHER FLOW:- 1.196 CUMECs

MODAL FLOW CALCULATED WITH A 9.1% CLASS INTERVAL

NATIONAL RIVERS AUTHORITY : STATION:- 8910304 RIVER ROTHER

WOODHOUSE MILL

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 17 OUT OF 17 PERIOD:- 1976 TO 1992 SEASON:- JAN TO DEC

FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION:- 8911240 RIVER RYBURN

RIPONDEN

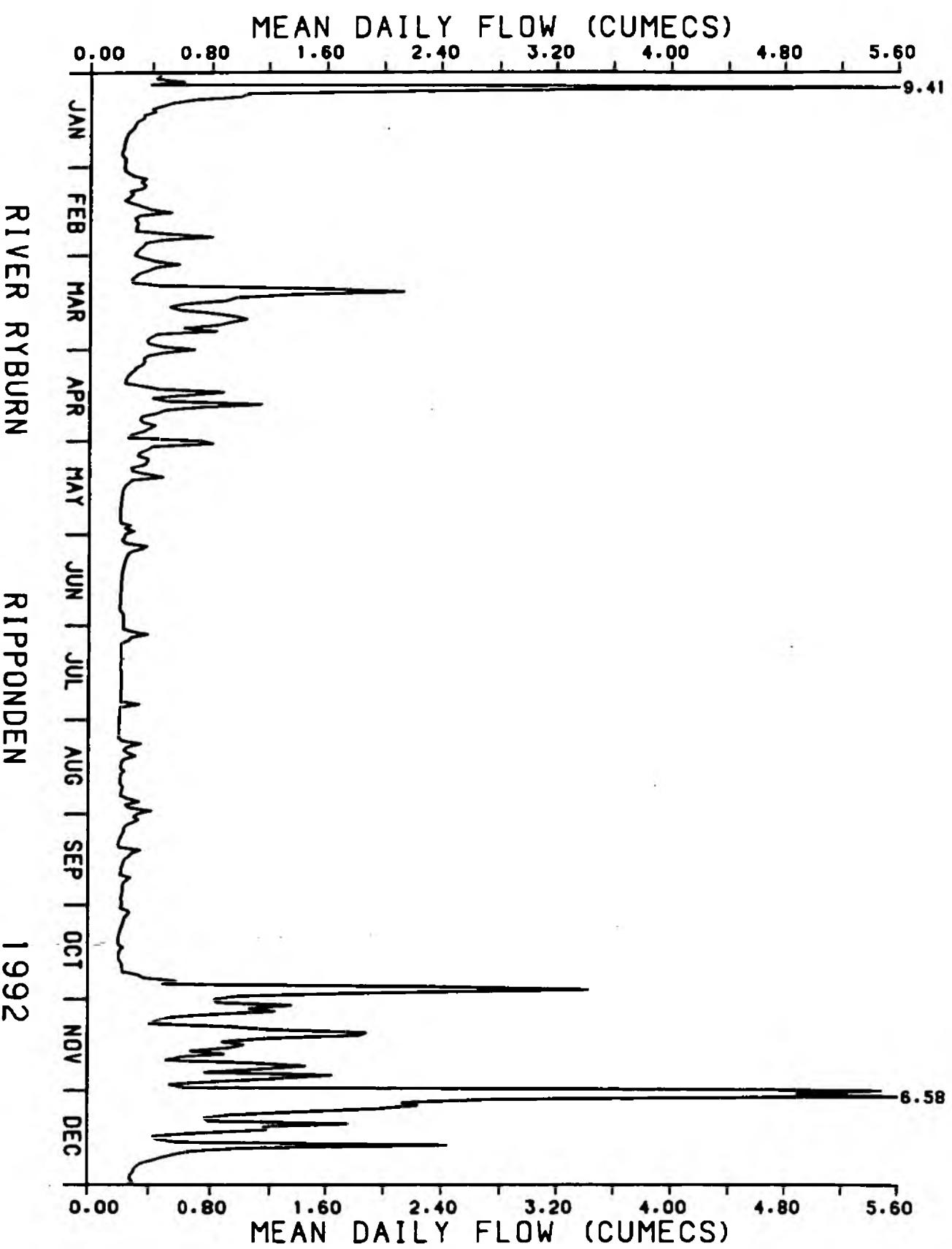
ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMECS) CALENDAR YEAR:- 1992

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	31/31	29/29	31/31	30/30	31/31	30/30	31/31	31/31	30/30	31/31	30/30	31/31
CUMEC DAYS	22.96	9.666	21.18	12.87	9.068	7.008	7.104	7.571	7.281	16.28	34.28	38.82
MINIMUM	0.199	0.216	0.261	0.233	0.204	0.205	0.204	0.197	0.198	0.199	0.403	0.262
MAXIMUM	9.408	0.811	2.143	1.160	0.817	0.368	0.379	0.410	0.349	3.431	5.497	6.578
MEAN	0.741	0.333	0.683	0.429	0.293	0.234	0.229	0.244	0.243	0.525	1.143	1.252
MEDIAN	0.289	0.292	0.588	0.343	0.257	0.226	0.215	0.221	0.230	0.231	0.941	0.726

ANNUAL FLOW STATISTICS

TOTAL NUMBER OF DAYS OF RECORD:- 366/366

TOTAL FLOW:-	194.1	CUMEC DAYS	MINIMUM MEAN DAILY FLOW:-	0.197	CUMECs				
MEAN FLOW:-	0.530	CUMECs	MAXIMUM MEAN DAILY FLOW:-	9.408	CUMECs				
MEDIAN FLOW:-	0.282	CUMECs	MAXIMUM INSTANTANEOUS FLOW:-	15.94	CUMECs				
			SEVEN DAY MINIMUM FLOW:-	0.202	CUMECs				
PERCENTAGE OF TIME:-	10	20	30	40	50	60	70	80	90
FLOW NOT EXCEEDED:-	0.210	0.217	0.228	0.246	0.282	0.334	0.403	0.610	1.003



NATIONAL RIVERS AUTHORITY : STATION:- 8911240 RIVER RYBURN RIPPONDEN

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 12 OUT OF 12 PERIOD:- 1981 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:- 0.542 CUMECMS
MEDIAN FLOW:- 0.327 CUMECMS
MODAL FLOW:- 0.229 CUMECMS
MINIMUM MEAN DAILY FLOW:- 0.101 CUMECMS ON 2/ 9/1984
MAXIMUM MEAN DAILY FLOW:- 9.408 CUMECMS ON 5/ 1/1992
MAXIMUM INSTANTANEOUS FLOW:- 16.96 CUMECMS ON 29/ 1/1990 AT 19:00
DRY WEATHER FLOW:- 0.211 CUMECMS

MODAL FLOW CALCULATED WITH A 5.9% CLASS INTERVAL

NATIONAL RIVERS AUTHORITY : STATION:- 8911240 RIVER RYBURN

RIPPONDEN

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 12 OUT OF 12 PERIOD:- 1981 TO 1992 SEASON:- JAN TO DEC

FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION:- 8912508 RIVER RYE BROADWAY FOOT

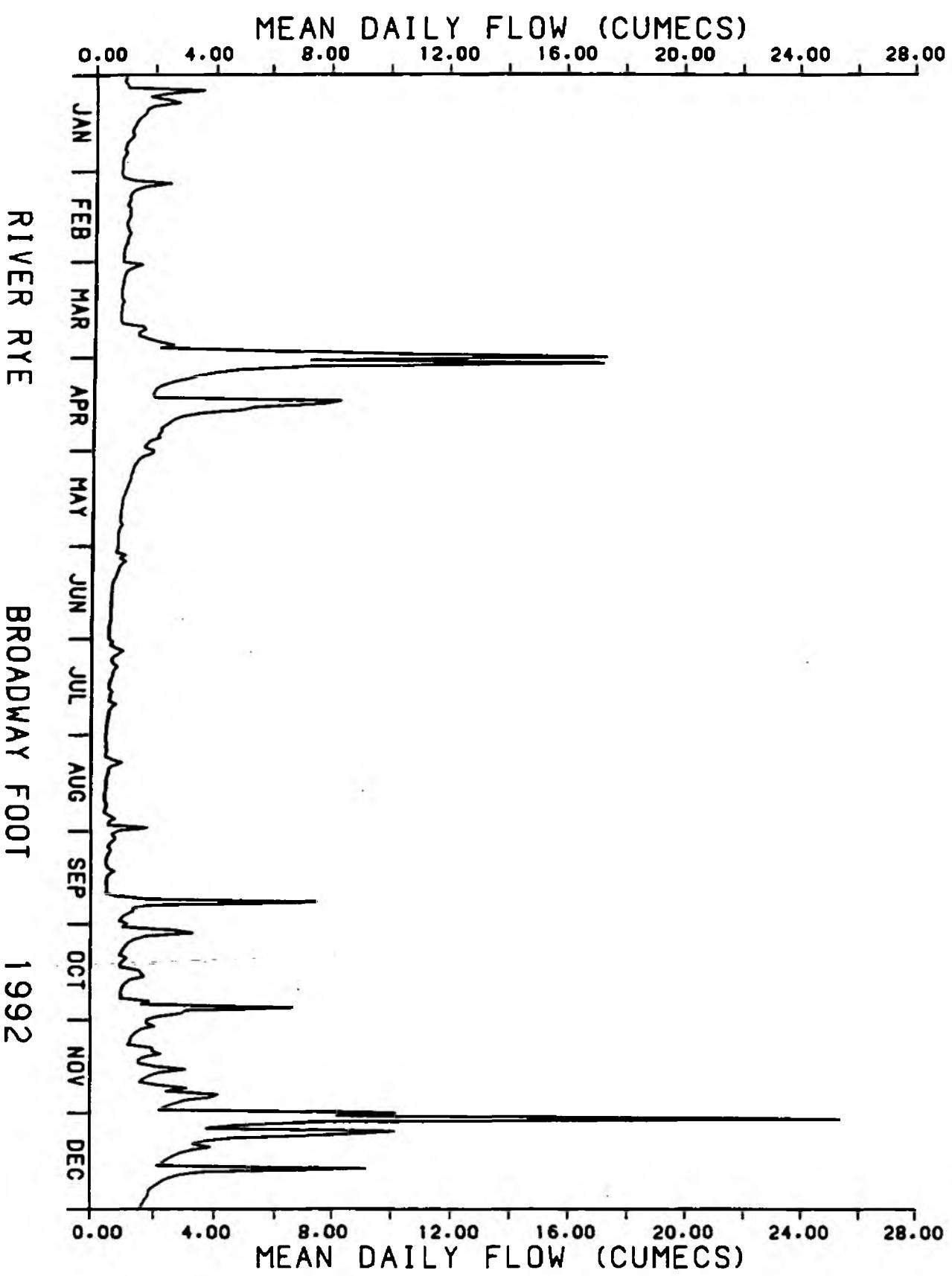
ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMECS) CALENDAR YEAR:- 1992

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	31/31	29/29	31/31	30/30	31/31	30/30	31/31	31/31	30/30	31/31	30/30	31/31
CUMEC DAYS	44.79	34.58	69.32	116.1	32.89	19.58	18.23	17.59	30.10	51.36	71.55	136.4
MINIMUM	0.912	0.920	0.867	1.654	0.769	0.498	0.443	0.430	0.480	0.893	1.144	1.514
MAXIMUM	3.631	2.537	17.36	17.24	1.932	1.070	0.972	1.851	7.534	6.759	10.19	25.42
MEAN	1.445	1.192	2.236	3.869	1.061	0.653	0.588	0.567	1.003	1.657	2.385	4.400
MEDIAN	1.233	1.152	1.023	2.542	0.932	0.574	0.558	0.475	0.599	1.169	2.051	2.869

ANNUAL FLOW STATISTICS

TOTAL NUMBER OF DAYS OF RECORD:- 366/366

TOTAL FLOW:-	642.5	CUMEC DAYS	MINIMUM MEAN DAILY FLOW:-	0.430	CUMECs				
MEAN FLOW:-	1.755	CUMECs	MAXIMUM MEAN DAILY FLOW:-	25.42	CUMECs				
MEDIAN FLOW:-	1.082	" CUMECs	MAXIMUM INSTANTANEOUS FLOW:-	47.40	CUMECs 2/12				
			SEVEN DAY MINIMUM FLOW:-	0.449	CUMECs 15-21/8				
PERCENTAGE OF TIME:-	10	20	30	40	50	60	70	80	90
FLOW NOT EXCEEDED:-	0.512	0.580	0.823	0.946	1.081	1.265	1.667	2.148	3.078



NATIONAL RIVERS AUTHORITY : STATION:- 8912508 RIVER RYE

BROADWAY FOOT

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 16 OUT OF 16 PERIOD:- 1977 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:- 2.190 CUMECMS

MEDIAN FLOW:- 1.397 CUMECMS

MODAL FLOW:- 0.864 CUMECMS

MINIMUM MEAN DAILY FLOW:- 0.364 CUMECMS ON 29/ 9/1989

MAXIMUM MEAN DAILY FLOW:- 46.87 CUMECMS ON 3/ 1/1982

MAXIMUM INSTANTANEOUS FLOW:- 82.27 CUMECMS ON 21/ 3/1981 AT 07:15

DRY WEATHER FLOW:- 0.595 CUMECMS

MODAL FLOW CALCULATED WITH A 7.1% CLASS INTERVAL

This record should be used with caution.

It was designed as a low flow measuring station, therefore at higher flows
it can only be approximate.

NATIONAL RIVERS AUTHORITY : STATION:- 8912508 RIVER RYE

BROADWAY FOOT

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 16 OUT OF 16 PERIOD:- 1977 TO 1992 SEASON:- JAN TO DEC

FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION:- 8912505 RIVER RYE NESS

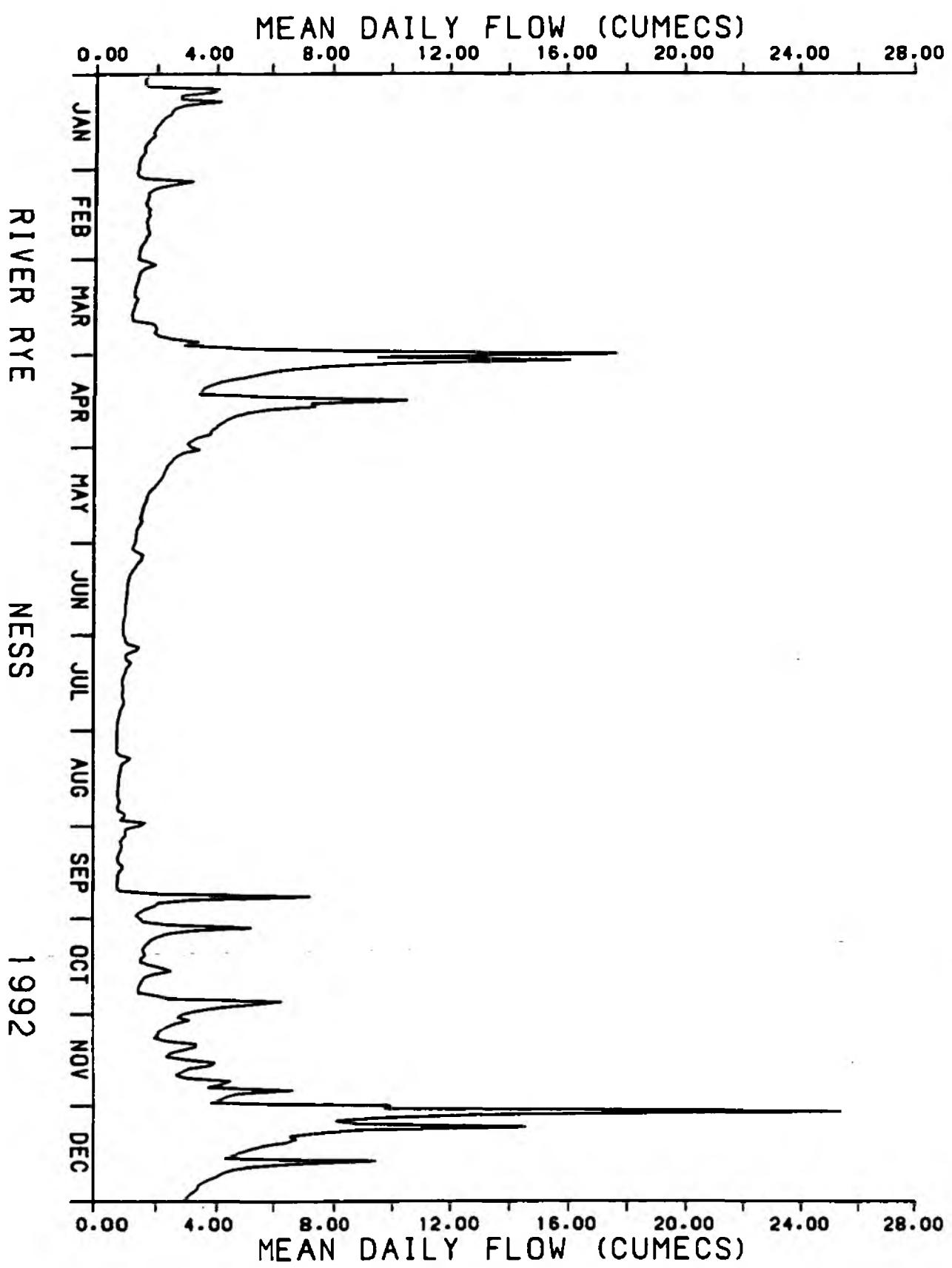
ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMECS) CALENDAR YEAR:- 1992

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	31/31	29/29	31/31	30/30	31/31	30/30	31/31	31/31	30/30	31/31	30/30	31/31
CUMEC DAYS	66.52	50.37	77.86	169.3	59.22	33.29	28.73	25.21	39.30	73.80	104.5	210.9
MINIMUM	1.432	1.380	1.210	3.035	1.331	0.873	0.674	0.652	0.690	1.424	1.957	2.900
MAXIMUM	4.185	3.240	17.72	16.16	3.455	1.586	1.483	1.689	7.235	6.335	9.950	25.41
MEAN	2.146	1.737	2.512	5.645	1.910	1.110	0.927	0.813	1.310	2.381	3.484	6.802
MEDIAN	1.872	1.689	1.452	4.539	1.706	1.042	0.897	0.723	0.843	1.854	3.063	5.194

ANNUAL FLOW STATISTICS

TOTAL NUMBER OF DAYS OF RECORD:- 366/366

TOTAL FLOW:-	939.0	CUMEC DAYS	MINIMUM MEAN DAILY FLOW:-	0.652	CUMECs				
MEAN FLOW:-	2.566	CUMECs	MAXIMUM MEAN DAILY FLOW:-	25.41	CUMECs				
MEDIAN FLOW:-	1.667	CUMECs	MAXIMUM INSTANTANEOUS FLOW:-	43.90	CUMECs 2/12				
			SEVEN DAY MINIMUM FLOW:-	0.668	CUMECs 1-7/8				
PERCENTAGE OF TIME:-	10	20	30	40	50	60	70	80	90
FLOW NOT EXCEEDED:-	0.769	0.956	1.294	1.487	1.666	1.975	2.562	3.419	5.028



NATIONAL RIVERS AUTHORITY : STATION:- 8912505 RIVER RYE

NESS

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 19 OUT OF 19 PERIOD:- 1974 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:- 3.459 CUMECMS

MEDIAN FLOW:- 2.522 CUMECMS

MODAL FLOW:- 1.422 CUMECMS

MINIMUM MEAN DAILY FLOW:- 0.497 CUMECMS ON 15/ 9/1990

MAXIMUM MEAN DAILY FLOW:- 51.29 CUMECMS ON 3/ 1/1982

MAXIMUM INSTANTANEOUS FLOW:- 74.06 CUMECMS ON 12/ 9/1976 AT 16:45

DRY WEATHER FLOW:- 0.911 CUMECMS

MODAL FLOW CALCULATED WITH A 4.5% CLASS INTERVAL

NATIONAL RIVERS AUTHORITY : STATION:- 8912505 RIVER RYE

NESS

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 19 OUT OF 19 PERIOD:- 1974 TO 1992 SEASON:- JAN TO DEC

FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION:- 8910906 S YORKS NAVIGATION LONG SANDALL LOCK

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 7 OUT OF 7 PERIOD:- 1984 TO 1990 SEASON:- JAN TO DEC

MEAN FLOW:- 0.688 CUMECs

MEDIAN FLOW:- 0.684 CUMECs

MODAL FLOW:- 0.692 CUMECs

MINIMUM MEAN DAILY FLOW:- 0.081 CUMECs ON 30/12/1990

MAXIMUM MEAN DAILY FLOW:- 1.499 CUMECs ON 17/ 6/1989

MAXIMUM INSTANTANEOUS FLOW:- 3.534 CUMECs ON 08/ 7/1989 AT 19:45

DRY WEATHER FLOW:- 0.446 CUMECs

MODAL FLOW CALCULATED WITH A 11.1% CLASS INTERVAL

NATIONAL RIVERS AUTHORITY : STATION:- 8910906 S YORKS NAVIGATION LONG SANDALL LOCK

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 7 OUT OF 7 PERIOD:- 1984 TO 1990 SEASON:- JAN TO DEC

FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION:- 8912603 SEA CUT

SCARBOROUGH

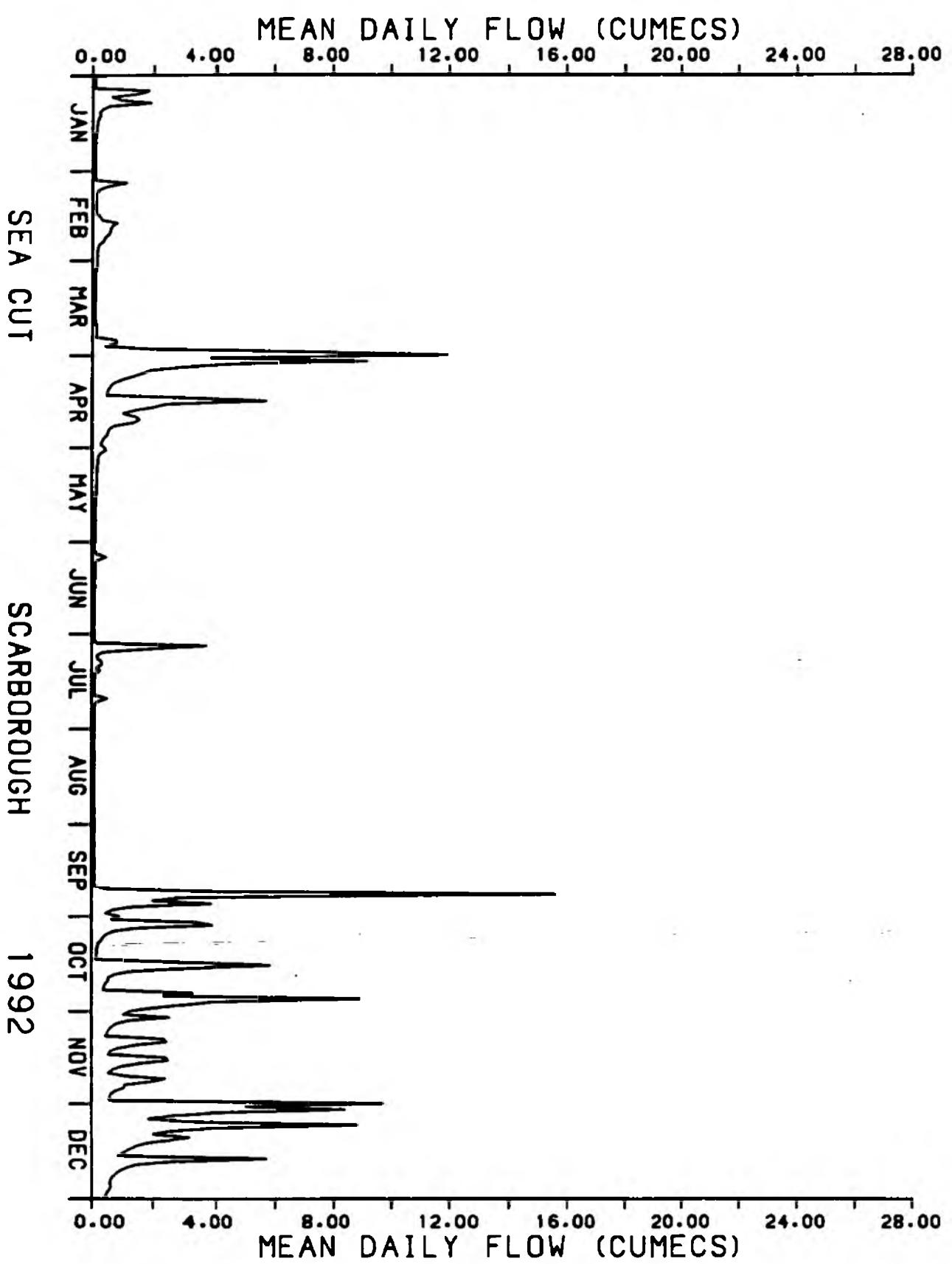
ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMECS) CALENDAR YEAR:- 1992

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	31/31	29/29	31/31	30/30	31/31	30/30	31/31	31/31	30/30	31/31	30/30	31/31
CUMEC DAYS	10.65	8.768	25.48	52.91	4.377	2.989	9.906	2.327	33.98	53.01	44.23	71.53
MINIMUM	0.085	0.084	0.079	0.263	0.080	0.065	0.071	0.061	0.070	0.138	0.446	0.418
MAXIMUM	1.923	1.118	11.98	9.230	0.453	0.462	3.706	0.138	15.63	8.979	9.747	8.871
MEAN	0.344	0.302	0.822	1.764	0.141	0.10	0.320	0.075	1.133	1.710	1.474	2.307
MEDIAN	0.113	0.169	0.102	1.132	0.124	0.076	0.099	0.071	0.088	0.700	0.976	1.417

ANNUAL FLOW STATISTICS

TOTAL NUMBER OF DAYS OF RECORD:- 366/366

TOTAL FLOW:-	320.2	CUMEC DAYS	MINIMUM MEAN DAILY FLOW:-	0.061	CUMECs				
MEAN FLOW:-	0.875	CUMECs	MAXIMUM MEAN DAILY FLOW:-	15.63	CUMECs				
MEDIAN FLOW:-	0.156	CUMECs	MAXIMUM INSTANTANEOUS FLOW:-	30.33	CUMECs 23/9				
			SEVEN DAY MINIMUM FLOW:-	0.067	CUMECs 15-21/8				
PERCENTAGE OF TIME:-	10	20	30	40	50	60	70	80	90
FLOW NOT EXCEEDED:-	0.073	0.080	0.094	0.121	0.154	0.377	0.577	1.092	2.444



NATIONAL RIVERS AUTHORITY : STATION:- 8912603 SEA CUT

SCARBOROUGH

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 27 OUT OF 27 PERIOD:- 1966 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:- 1.382 CUMECs
MEDIAN FLOW:- 0.607 CUMECs
MODAL FLOW:- 0.088 CUMECs
MINIMUM MEAN DAILY FLOW:- 0.048 CUMECs ON 3/10/1991
MAXIMUM MEAN DAILY FLOW:- 35.65 CUMECs ON 2/11/1968
MAXIMUM INSTANTANEOUS FLOW:- 65.09 CUMECs ON 02/11/1968 AT 19:45
DRY WEATHER FLOW:- 0.091 CUMECs

MODAL FLOW CALCULATED WITH A 4.5% CLASS INTERVAL

NATIONAL RIVERS AUTHORITY : STATION:- 8912603 SEA CUT

SCARBOROUGH

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 27 OUT OF 27 PERIOD:- 1966 TO 1992 SEASON:- JAN TO DEC

FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION:- 8912540 RIVER SEVEN NORMANBY

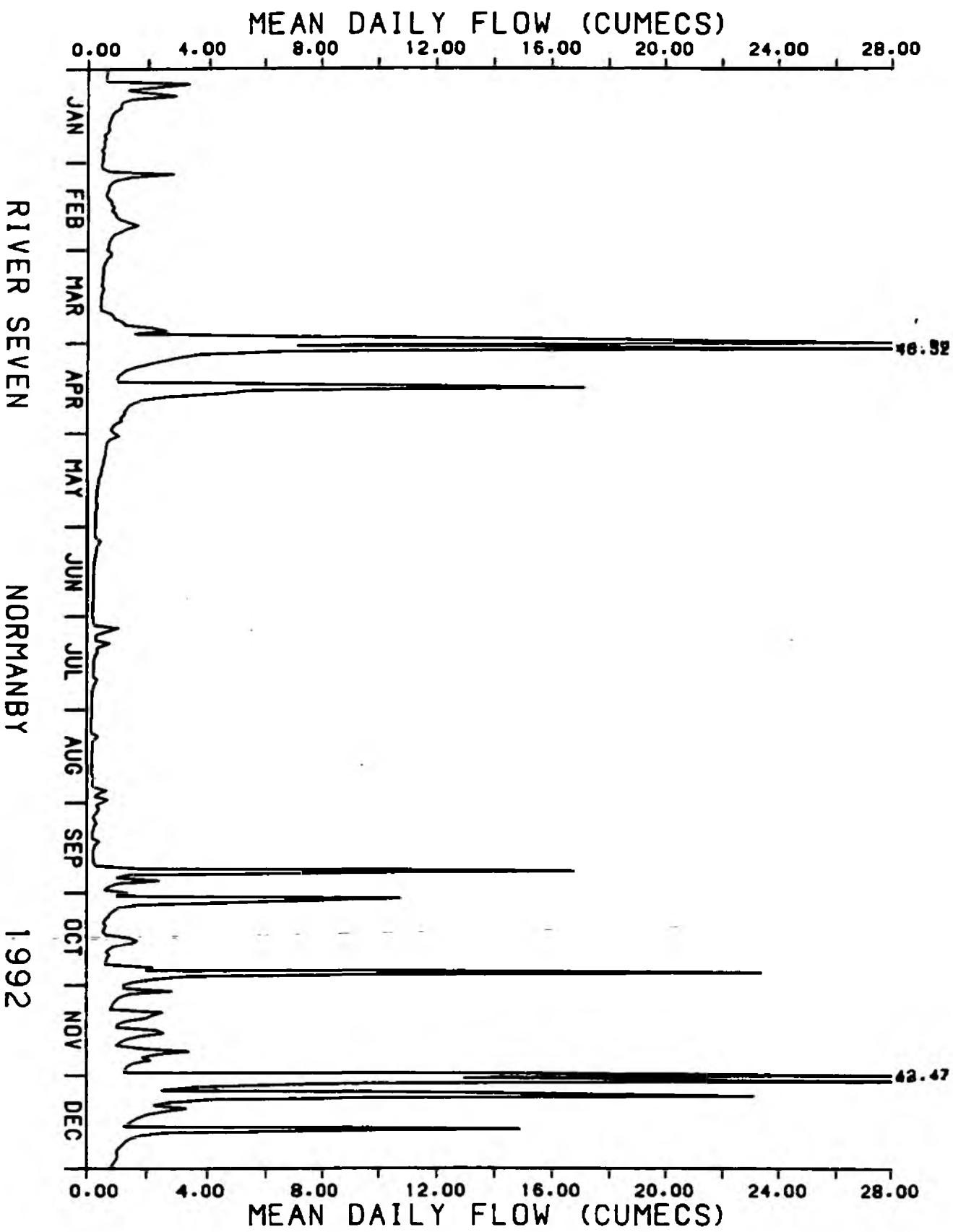
ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMECS) CALENDAR YEAR:- 1992

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	31/31	29/29	31/31	30/30	31/31	30/30	31/31	31/31	30/30	31/31	30/30	31/31
CUMEC DAYS	30.75	27.10	79.25	124.3	13.75	7.383	9.337	7.383	32.97	72.18	89.73	109.4
MINIMUM	0.450	0.450	0.425	0.778	0.269	0.185	0.160	0.118	0.181	0.520	0.790	0.795
MAXIMUM	3.389	2.787	32.90	40.32	1.064	0.449	1.059	0.717	16.83	23.44	42.43	52.51
MEAN	0.992	0.934	2.556	4.143	0.444	0.246	0.301	0.238	1.099	2.329	2.991	5.464
MEDIAN	0.688	0.789	0.539	1.453	0.365	0.222	0.228	0.182	0.297	0.930	1.388	1.823

ANNUAL FLOW STATISTICS

TOTAL NUMBER OF DAYS OF RECORD:- 366/366

TOTAL FLOW:-	663.5	CUMEC DAYS	MINIMUM MEAN DAILY FLOW:-	0.118	CUMECs				
MEAN FLOW:-	1.813	CUMECs	MAXIMUM MEAN DAILY FLOW:-	52.31	CUMECs				
MEDIAN FLOW:-	0.661	CUMECs	MAXIMUM INSTANTANEOUS FLOW:-	97.00	CUMECs 2/12				
			SEVEN DAY MINIMUM FLOW:-	0.141	CUMECs 1-7/8				
PERCENTAGE OF TIME:-	10	20	30	40	50	60	70	80	90
FLOW NOT EXCEEDED:-	0.199	0.260	0.347	0.507	0.660	0.824	1.088	1.482	2.555



NATIONAL RIVERS AUTHORITY : STATION:- 8912540 RIVER SEVEN NORMANBY

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 16 OUT OF 16 PERIOD:- 1977 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:- 1.812 CUMECs

MEDIAN FLOW:- 0.818 CUMECs

MODAL FLOW:- 0.306 CUMECs

MINIMUM MEAN DAILY FLOW:- 0.107 CUMECs ON 13/ 9/1991

MAXIMUM MEAN DAILY FLOW:- 80.49 CUMECs ON 3/ 1/1982

MAXIMUM INSTANTANEOUS FLOW:- 127.7 CUMECs ON 09/12/1983 AT 17:45

DRY WEATHER FLOW:- 0.226 CUMECs

MODAL FLOW CALCULATED WITH A 11.1% CLASS INTERVAL

This record should be used with caution.

It was designed as a low flow measuring station , therefore at higher flows
it can only be approximate.

NATIONAL RIVERS AUTHORITY : STATION:- 8912540 RIVER SEVEN

NORMANDY

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 16 OUT OF 16 PERIOD:- 1977 TO 1992 SEASON:- JAN TO DEC

FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION:- 8910402 RIVER SHEAF

HIGHFIELD

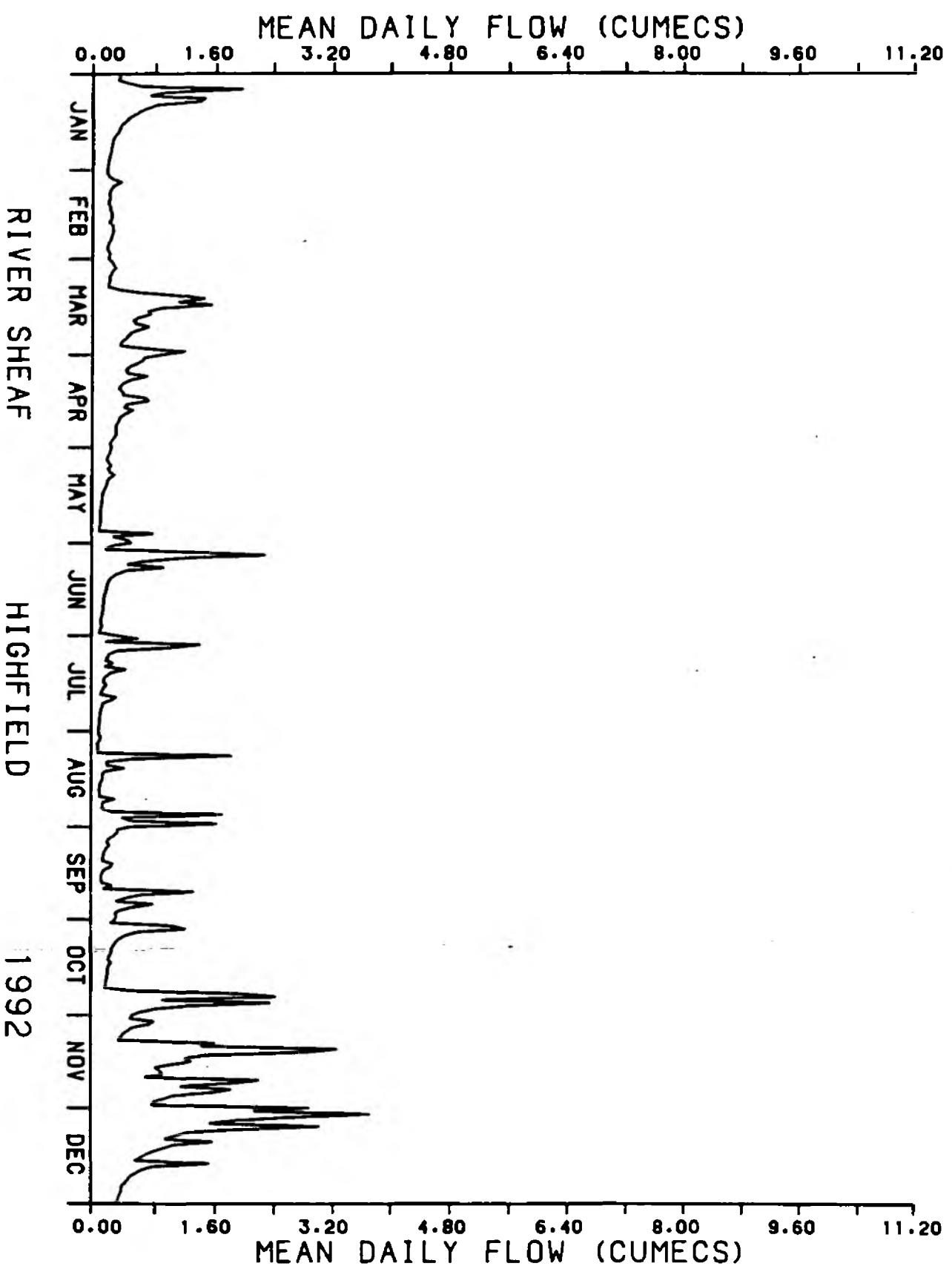
ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMECs) CALENDAR YEAR:- 1992

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	31/31	29/29	31/31	30/30	31/31	30/30	31/31	31/31	30/30	31/31	30/30	31/31
CUMEC DAYS	16.39	7.248	19.00	13.30	7.026	11.80	8.640	11.21	10.03	19.61	30.85	34.58
MINIMUM	0.200	0.200	0.220	0.245	0.114	0.112	0.109	0.094	0.144	0.196	0.372	0.354
MAXIMUM	1.966	0.395	1.562	0.717	0.779	2.283	1.407	1.834	1.333	2.443	5.269	5.720
MEAN	0.529	0.250	0.613	0.443	0.227	0.393	0.279	0.362	0.334	0.632	1.228	1.109
MEDIAN	0.373	0.243	0.534	0.428	0.206	0.200	0.195	0.155	0.279	0.322	0.978	0.790

ANNUAL FLOW STATISTICS

TOTAL NUMBER OF DAYS OF RECORD:- 366/366

TOTAL FLOW:-	195.5	CUMEC DAYS	MINIMUM MEAN DAILY FLOW:-	0.094	CUMECs				
MEAN FLOW:-	0.534	CUMECs	MAXIMUM MEAN DAILY FLOW:-	5.720	CUMECs				
MEDIAN FLOW:-	0.323	CUMECs	MAXIMUM INSTANTANEOUS FLOW:-	8.547	CUMECs 21/9				
			SEVEN DAY MINIMUM FLOW:-	0.109	CUMECs 1-7/8				
PERCENTAGE OF TIME:-	10	20	30	40	50	60	70	80	90
FLOW NOT EXCEEDED:-	0.144	0.195	0.225	0.263	0.322	0.405	0.527	0.717	1.237



NATIONAL RIVERS AUTHORITY : STATION:- 8910402 RIVER SHEAF

HIGHFIELD

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 12 OUT OF 12 PERIOD:- 1981 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:- 0.603 CUMECs

MEDIAN FLOW:- 0.327 CUMECs

MODAL FLOW:- 0.122 CUMECs

MINIMUM MEAN DAILY FLOW:- 0.053 CUMECs ON 4/9/1990

MAXIMUM MEAN DAILY FLOW:- 29.97 CUMECs ON 21/12/1991

MAXIMUM INSTANTANEOUS FLOW:- 119.4 CUMECs ON 21/12/1991 AT 13:00

DRY WEATHER FLOW:- 0.095 CUMECs

MODAL FLOW CALCULATED WITH A 6.7% CLASS INTERVAL

NATIONAL RIVERS AUTHORITY :: STATION:- 8910402 RIVER SHEAF

HIGHFIELD

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 12 OUT OF 12 PERIOD:- 1981 TO 1992 SEASON:- JAN TO DEC

FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION:- 8912216 RIVER SKELL ALMA WEIR

ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMECS) CALENDAR YEAR:- 1992

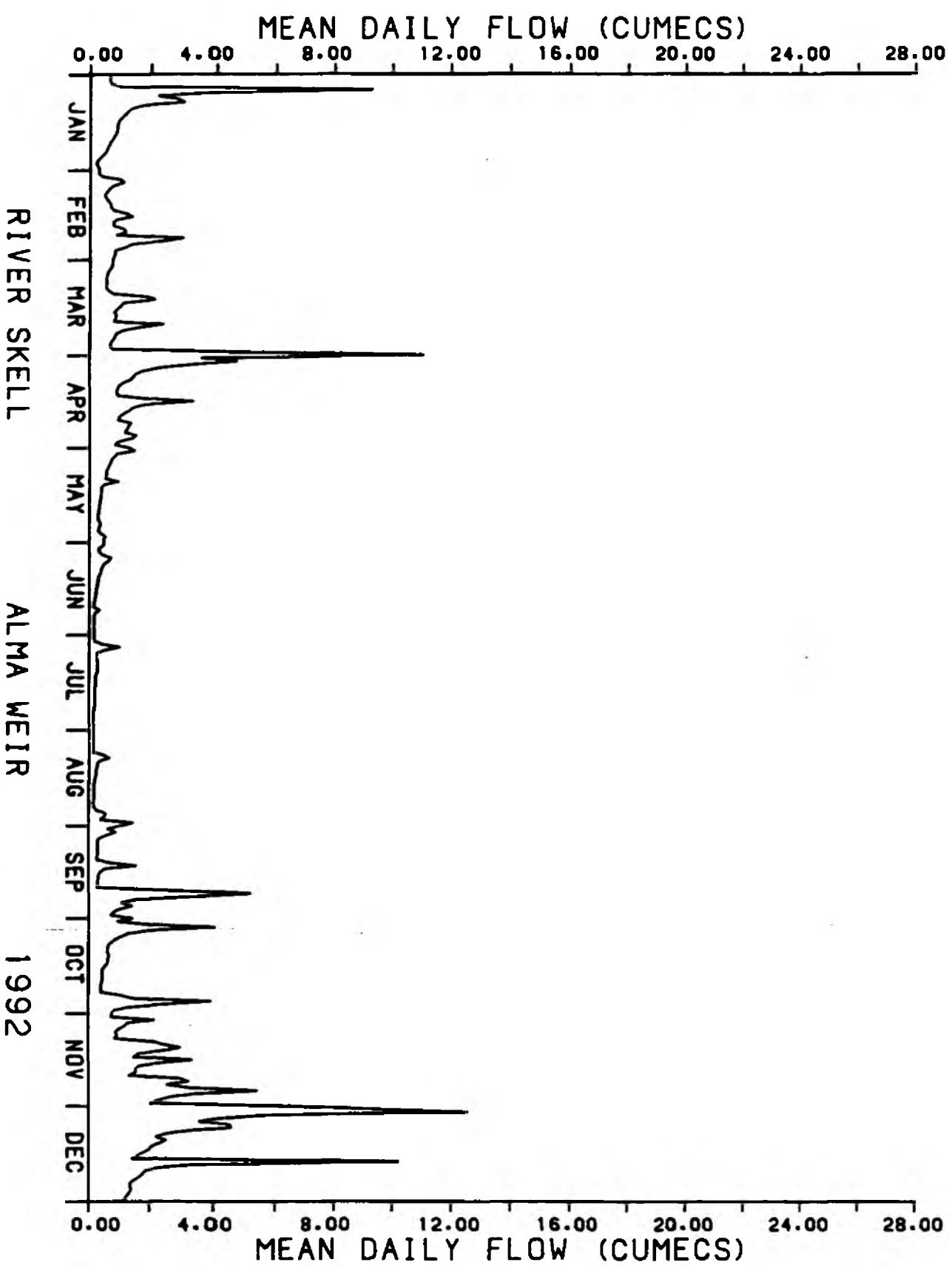
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	31/31	29/29	31/31	30/30	31/31	30/30	31/31	31/31	30/30	31/31	30/30	31/31
CUMEC DAYS	41.48	28.18	42.72	49.09	16.01	8.806	7.812	9.704	29.07	33.15	68.54	98.17
MINIMUM	0.197	0.275	0.520	0.842	0.281	0.155	0.138	0.136	0.274	0.390	0.763	1.112
MAXIMUM	9.341	3.078	11.09	4.743	1.513	0.722	1.038	1.488	5.235	4.045	6.356	12.60
MEAN	1.338	0.972	1.378	1.636	0.517	0.294	0.252	0.313	0.969	1.069	2.285	3.167
MEDIAN	0.855	0.799	0.794	1.329	0.408	0.247	0.208	0.177	0.577	0.682	2.148	2.070

ANNUAL FLOW STATISTICS

TOTAL NUMBER OF DAYS OF RECORD:- 366/366

TOTAL FLOW:-	432.7	CUMEC DAYS	MINIMUM MEAN DAILY FLOW:-	0.136	CUMECs
MEAN FLOW:-	1.182	CUMECs	MAXIMUM MEAN DAILY FLOW:-	12.60	CUMECs
MEDIAN FLOW:-	0.734	CUMECs	MAXIMUM INSTANTANEOUS FLOW:-	20.59	CUMECs 2/12
			SEVEN DAY MINIMUM FLOW:-	0.142	CUMECs 2/7-2/8

PERCENTAGE OF TIME:-	10	20	30	40	50	60	70	80	90
FLOW NOT EXCEEDED:-	0.188	0.283	0.387	0.564	0.734	0.890	1.179	1.550	2.547



NATIONAL RIVERS AUTHORITY : STATION:- 5912216 RIVER SKELL ALMA WEIR

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 8 OUT OF 8 PERIOD:- 1985 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:- 1.385 CUMECMS

MEDIAN FLOW:- 0.793 CUMECMS

MODAL FLOW:- 0.264 CUMECMS

MINIMUM MEAN DAILY FLOW:- 0.020 CUMECMS ON 23/ 6/1988

MAXIMUM MEAN DAILY FLOW:- 23.24 CUMECMS ON 17/ 4/1986

MAXIMUM INSTANTANEOUS FLOW:- 42.61 CUMECMS ON 17/ 4/1986 AT 12:00

DRY WEATHER FLOW:- 0.138 CUMECMS

MODAL FLOW CALCULATED WITH A 11.1% CLASS INTERVAL

NATIONAL RIVERS AUTHORITY : STATION:- 8912216 RIVER SKELL

ALMA WEIR

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 8 OUT OF 8 PERIOD:- 1985 TO 1992 SEASON:- JAN TO DEC

FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION:- 8912290 SNAIZEHOLME BECK LOW HOUSES

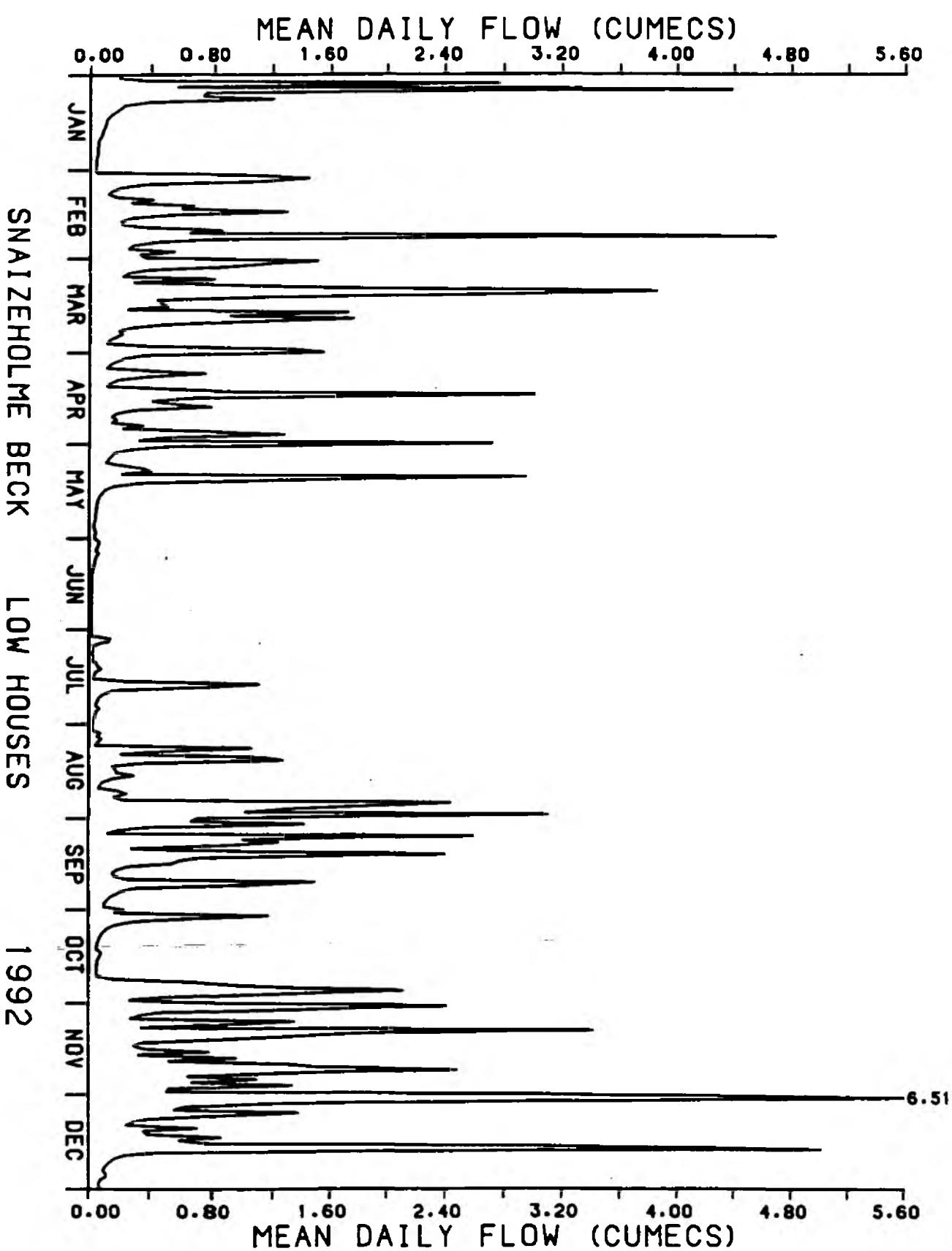
ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMECS) CALENDAR YEAR:- 1992

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	31/31	29/29	31/31	30/30	31/31	30/30	31/31	31/31	30/30	31/31	30/30	31/31
CUMEC DAYS	13.26	18.87	28.19	17.19	8.046	0.743	3.667	17.52	19.22	11.87	33.40	29.66
MINIMUM	0.034	0.043 ¹	0.112	0.111	0.027	0.011	0.014	0.021	0.098	0.049	0.275	0.065
MAXIMUM	4.398	4.694	3.865	3.021	2.958	0.067	1.111	3.111	2.602	2.118	3.422	6.509
MEAN	0.428	0.651	0.909	0.573	0.260	0.025	0.118	0.565	0.641	0.383	1.113	0.957
MEDIAN	0.101	0.375	0.521	0.361	0.086	0.016	0.043	0.191	0.298	0.104	0.863	0.388

ANNUAL FLOW STATISTICS

TOTAL NUMBER OF DAYS OF RECORD:- 366/366

TOTAL FLOW:-	201.6	CUMEC DAYS	MINIMUM MEAN DAILY FLOW:-	0.011	CUMECs				
MEAN FLOW:-	0.551	CUMECs	MAXIMUM MEAN DAILY FLOW:-	6.509	CUMECs				
MEDIAN FLOW:-	0.216	CUMECs	MAXIMUM INSTANTANEOUS FLOW:-	14.85	CUMECs 18/12				
			SEVEN DAY MINIMUM FLOW:-	0.012	CUMECs 21-27/6				
PERCENTAGE OF TIME:-	10	20	30	40	50	60	70	80	90
FLOW NOT EXCEEDED:-	0.034	0.050	0.083	0.145	0.215	0.338	0.527	0.860	1.354



NATIONAL RIVERS AUTHORITY : STATION:- 8912290 SNAIZEHOLME BECK LOW HOUSES

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 27 OUT OF 27 PERIOD:- 1966 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:-	0.549	CUMECs	
MEDIAN FLOW:-	0.197	CUMECs	
MODAL FLOW:-	0.043	CUMECs	
MINIMUM MEAN DAILY FLOW:-	0.008	CUMECs	ON 25/ 6/1989
MAXIMUM MEAN DAILY FLOW:-	12.18	CUMECs	ON 23/ 2/1991
MAXIMUM INSTANTANEOUS FLOW:-	16.10	CUMECs	ON 10/11/1991 AT 22:30
DRY WEATHER FLOW:-	0.024	CUMECs	

MODAL FLOW CALCULATED WITH A 11.1% CLASS INTERVAL

This record should be used with caution.

During 1985, a new weir was built, being commissioned on the 24th October 1985.

At higher flows the weir is bypassed.

NATIONAL RIVERS AUTHORITY : STATION:- 8912290 SNAIZEHOLME BECK LOW HOUSES

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 27 OUT OF 27 PERIOD:- 1966 TO 1992 SEASON:- JAN TO DEC

FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION:- 8911385 SPEN BECK NORTHORPE

ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMECS) CALENDAR YEAR:- 1992

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	31/31	29/29	31/31	30/30	31/31	30/30	31/31	31/31	30/30	31/31	30/30	31/31
CUNEC DAYS	30.81	15.31	26.46	19.80	14.31	13.62	14.54	16.47	15.50	26.27	40.53	31.28
MINIMUM	0.455	0.428	0.411	0.467	0.327	0.312	0.305	0.263	0.358	0.357	0.635	0.464
MAXIMUM	8.540	0.764	2.499	1.242	1.052	1.390	1.543	2.016	1.416	4.857	3.369	3.317
MEAN	0.994	0.528	0.854	0.660	0.461	0.454	0.469	0.531	0.517	0.847	1.351	1.009
MEDIAN	0.520	0.504	0.756	0.600	0.412	0.399	0.399	0.395	0.467	0.474	1.169	0.772

ANNUAL FLOW STATISTICS

TOTAL NUMBER OF DAYS OF RECORD:- 366/366

TOTAL FLOW:- 264.9 CUMEC DAYS MINIMUM MEAN DAILY FLOW:- 0.263 CUMECS

MEAN FLOW:- 0.724 CUMECS MAXIMUM MEAN DAILY FLOW:- 8.540 CUMECSS

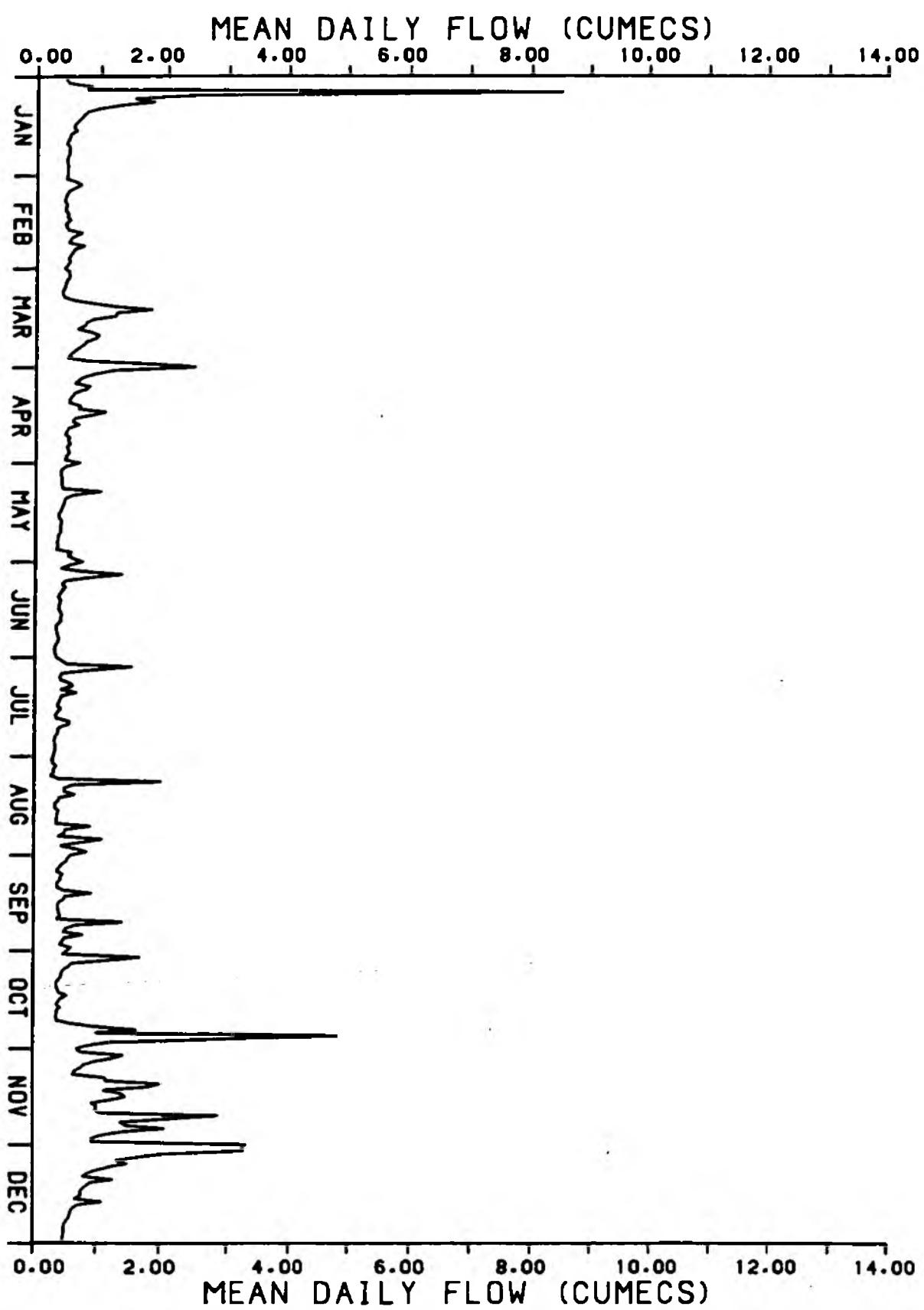
MEDIAN FLOW:- 0.509 CUMECS **MAXIMUM INSTANTANEOUS FLOW:-** 13.35 CUMECS

MEDIAN FLOW:- 0.509 CUMECs MAXIMUM INSTANTANEOUS FLOW:- 13.35 CUMECs 5/1
SEVEN DAY MINIMUM FLOW:- 0.303 CUMECs 31/7-6/8

PERCENTAGE OF TIME:- 10 20 30 40 50 60 70 80 90

FLOW NOT EXCEEDED:- 0.362 0.399 0.435 0.476 0.509 0.581 0.690 0.884 1.259

SPEN BECK
NORTHORPE 1992



NATIONAL RIVERS AUTHORITY : STATION:- 8911385 SPEN BECK

NORTHORPE

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 10 OUT OF 10 PERIOD:- 1983 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:- 0.793 CUMECs

MEDIAN FLOW:- 0.526 CUMECs

MODAL FLOW:- 0.381 CUMECs

MINIMUM MEAN DAILY FLOW:- 0.230 CUMECs ON 26/ 8/1984

MAXIMUM MEAN DAILY FLOW:- 11.68 CUMECs ON 9/12/1983

MAXIMUM INSTANTANEOUS FLOW:- 20.30 CUMECs ON 09/12/1983 AT 15:15

DRY WEATHER FLOW:- 0.304 CUMECs

MODAL FLOW CALCULATED WITH A 8.3% CLASS INTERVAL

NATIONAL RIVERS AUTHORITY : STATION:- 8911385 SPEN BECK

NORTHRORPE

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 10 OUT OF 10 PERIOD:- 1983 TO 1992 SEASON:- JAN TO DEC

FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION:- 8912307 RIVER SWALE RICHMOND

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 13 OUT OF 15 PERIOD:- 1966 TO 1980 SEASON:- JAN TO DEC

MEAN FLOW:- 10.38 CUMECs

MEDIAN FLOW:- 5.639 CUMECs

MODAL FLOW:- 1.774 CUMECs

MINIMUM MEAN DAILY FLOW:- 0.250 CUMECs ON 2/ 6/1980

MAXIMUM MEAN DAILY FLOW:- 277.5 CUMECs ON 23/ 3/1968

MAXIMUM INSTANTANEOUS FLOW:- 380.1 CUMECs ON 23/ 3/1968 AT 22:00

DRY WEATHER FLOW:- 1.245 CUMECs

MODAL FLOW CALCULATED WITH A 5.0% CLASS INTERVAL

NATIONAL RIVERS AUTHORITY : STATION:- 8912307 RIVER SWALE

RICHMOND

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 13 OUT OF 15 PERIOD:- 1966 TO 1980 SEASON:- JAN TO DEC

FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION:- 8912303 RIVER SWALE LECKBY

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 16 OUT OF 16 PERIOD:- 1969 TO 1984 SEASON:- JAN TO DEC

MEAN FLOW:- 21.21 CUMECs

MEDIAN FLOW:- 13.32 CUMECs

MODAL FLOW:- 6.911 CUMECs

MINIMUM MEAN DAILY FLOW:- 1.850 CUMECs ON 13/ 8/1975

MAXIMUM MEAN DAILY FLOW:- 213.7 CUMECs ON 4/ 1/1982

MAXIMUM INSTANTANEOUS FLOW:- 215.4 CUMECs ON 04/ 1/1982 AT 07:00

DRY WEATHER FLOW:- 4.513 CUMECs

MODAL FLOW CALCULATED WITH A 4.2% CLASS INTERVAL

NATIONAL RIVERS AUTHORITY : STATION:- 8912303 RIVER SWALE

LECKBY

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 16 OUT OF 16 PERIOD:- 1969 TO 1984 SEASON:- JAN TO DEC

FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION:- 8912302 RIVER SWALE

CRAKEHILL

ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMECs) CALENDAR YEAR:- 1992

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	31/31	29/29	31/31	30/30	31/31	30/30	31/31	31/31	30/30	31/31	30/30	31/31
CUMEC DAYS	522.3	425.8	550.5	802.9	259.6	113.2	139.3	232.1	381.3	366.5	800.0	1379.
MINIMUM	6.232	5.997 ¹	7.576	11.69	4.567	2.656	2.972	2.866	5.711	4.858	10.71	10.81
MAXIMUM	81.92	49.83	109.7	95.19	25.09	6.110	8.324	34.63	53.10	43.88	53.41	197.8
MEAN	16.85	14.68	17.76	26.76	8.374	3.774	4.493	7.487	12.71	11.82	26.67	44.47
MEDIAN	10.14	11.75	12.51	16.32	6.687	3.502	4.212	4.026	10.06	7.169	22.47	23.58

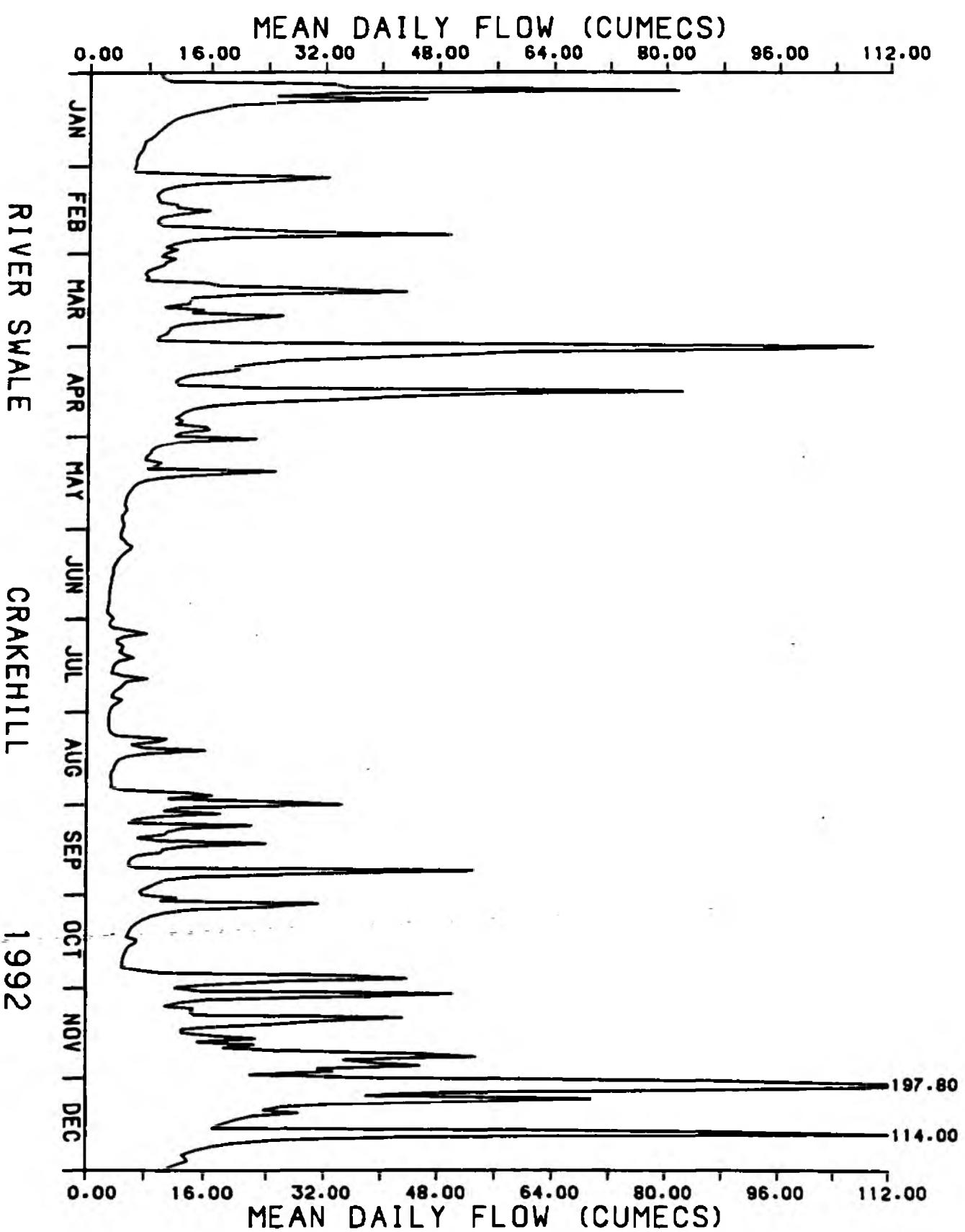
ANNUAL FLOW STATISTICS

TOTAL NUMBER OF DAYS OF RECORD:- 366/366

TOTAL FLOW:-	5972. CUMEC DAYS	MINIMUM MEAN DAILY FLOW:-	2.656 CUMECs
MEAN FLOW:-	16.32 CUMECs	MAXIMUM MEAN DAILY FLOW:-	197.8 CUMECs
MEDIAN FLOW:-	10.31 CUMECs	MAXIMUM INSTANTANEOUS FLOW:-	219.4 CUMECs <i>a/12</i>
		SEVEN DAY MINIMUM FLOW:-	2.810 CUMECs <i>22-28/6</i>

PERCENTAGE OF TIME:- 10 20 30 40 50 60 70 80 90

FLOW NOT EXCEEDED:- 3.530 4.900 6.183 8.176 10.30 12.28 15.19 21.66 34.63



NATIONAL RIVERS AUTHORITY : STATION:- 8912302 RIVER SWALE

CRAKEHILL

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORDS:- 12 OUT OF 12 PERIOD:- 1981 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:- 19.30 CUMECs

MEDIAN FLOW:- 11.47 CUMECs

MODAL FLOW:- 4.129 CUMECs

MINIMUM MEAN DAILY FLOW:- 1.937 CUMECs ON 6/ 8/1990

MAXIMUM MEAN DAILY FLOW:- 227.8 CUMECs ON 4/ 1/1982

MAXIMUM INSTANTANEOUS FLOW:- 230.7 CUMECs ON 05/ 1/1982 AT 09:00

DRY WEATHER FLOW:- 3.252 CUMECs

MODAL FLOW CALCULATED WITH A 2.6% CLASS INTERVAL

NATIONAL RIVERS AUTHORITY : STATION:- 8912302 RIVER SWALE

CRAKEHILL

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 12 OUT OF 12 PERIOD:- 1981 TO 1993 SEASON:- JAN TO DEC

FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION:- 8912206 RIVER URE KILGRAM

ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMECS) CALENDAR YEAR:- 1992

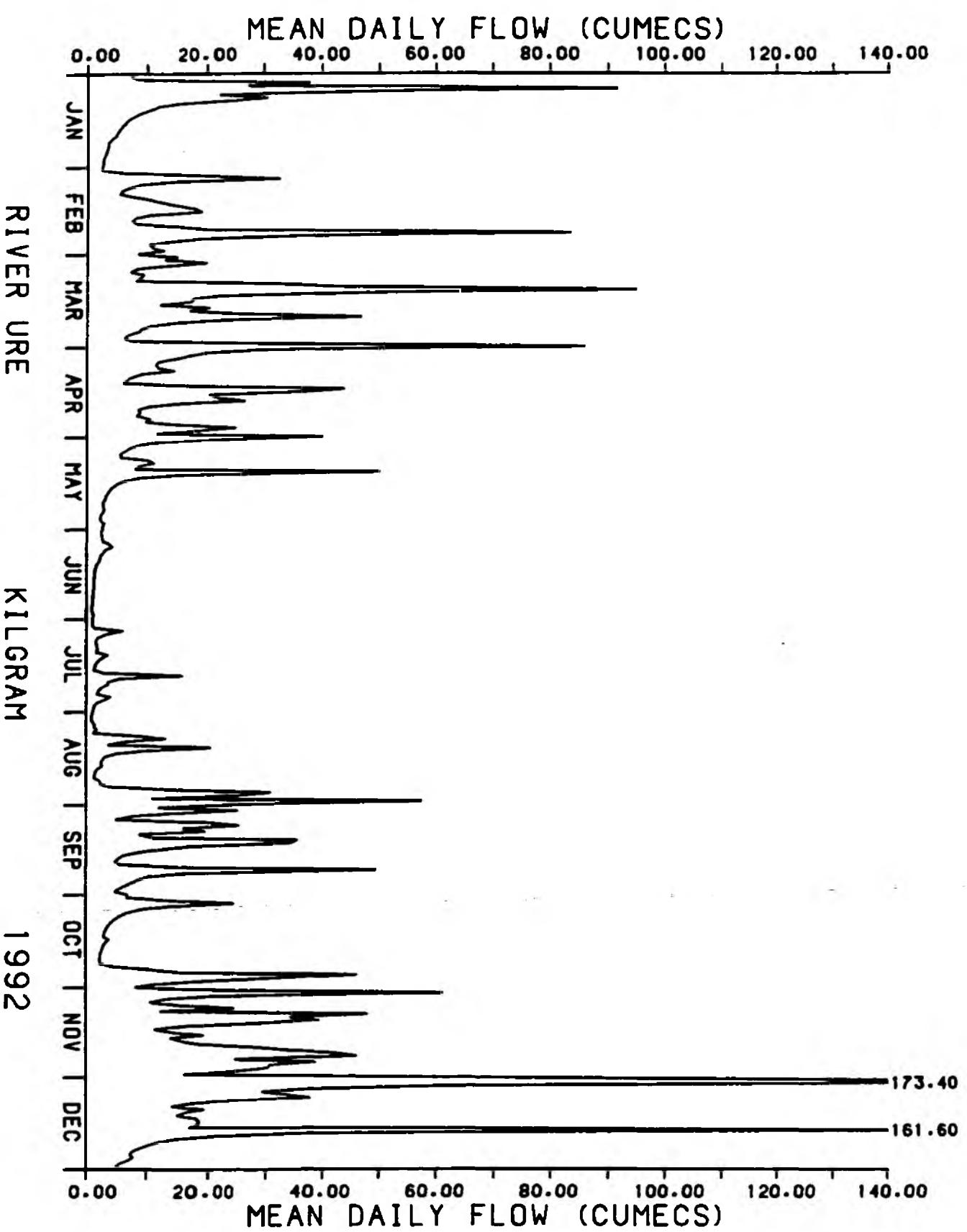
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	31/31	29/29	31/31	30/30	31/31	30/30	31/31	31/31	30/30	31/31	30/30	31/31
CUMEC DAYS	425.6	454.2	711.0	511.0	238.3	53.90	87.92	270.7	433.6	283.3	820.4	1015.
MINIMUM	2.410	2.458	6.183	6.180	2.240	0.893	0.962	0.959	4.825	2.332	10.72	5.066
MAXIMUM	91.89	83.62	95.24	44.16	50.22	4.383	15.91	57.85	49.86	46.23	61.26	173.4
MEAN	13.73	15.66	22.93	17.03	7.687	1.797	2.836	8.731	14.45	9.140	27.35	32.76
MEDIAN	6.567	11.07	14.88	14.37	5.067	1.341	1.803	2.826	10.92	4.720	25.04	17.46

ANNUAL FLOW STATISTICS

TOTAL NUMBER OF DAYS OF RECORD:- 366/366

TOTAL FLOW:-	5305. CUMEC DAYS	MINIMUM MEAN DAILY FLOW:-	0.893 CUMECs
MEAN FLOW:-	14.50 CUMECs	MAXIMUM MEAN DAILY FLOW:-	173.4 CUMECs
MEDIAN FLOW:-	8.617 CUMECs	MAXIMUM INSTANTANEOUS FLOW:-	255.7 CUMECs 2/12
		SEVEN DAY MINIMUM FLOW:-	1.014 CUMECs 26/6-2/7

PERCENTAGE OF TIME:-	10	20	30	40	50	60	70	80	90
FLOW NOT EXCEEDED:-	1.586	2.689	3.911	6.183	8.588	11.58	15.34	20.58	32.73



NATIONAL RIVERS AUTHORITY : STATION:- 8912206 RIVER URE KILGRAM

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 25 OUT OF 25 PERIOD:- 1968 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:- 15.26 CUMECs

MEDIAN FLOW:- 7.838 CUMECs

MODAL FLOW:- 2.013 CUMECs

MINIMUM MEAN DAILY FLOW:- 0.276 CUMECs ON 25/ 8/1976

MAXIMUM MEAN DAILY FLOW:- 349.7 CUMECs ON 23/ 2/1991

MAXIMUM INSTANTANEOUS FLOW:- 382.6 CUMECs ON 23/ 2/1991 AT 23:45

DRY WEATHER FLOW:- 0.944 CUMECs

MODAL FLOW CALCULATED WITH A 4.0% CLASS INTERVAL

Flows quoted are " as measured ".

No allowance has been made for the Thornton Steward abstraction which is only a short distance upstream of the measuring station and was brought into service in 1977.

NATIONAL RIVERS AUTHORITY : STATION:- 8912206 RIVER URE

KILGRAM

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 25 OUT OF 25 PERIOD:- 1968 TO 1992 SEASON:- JAN TO DEC

FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION:- 8912202 RIVER URE WESTWICK

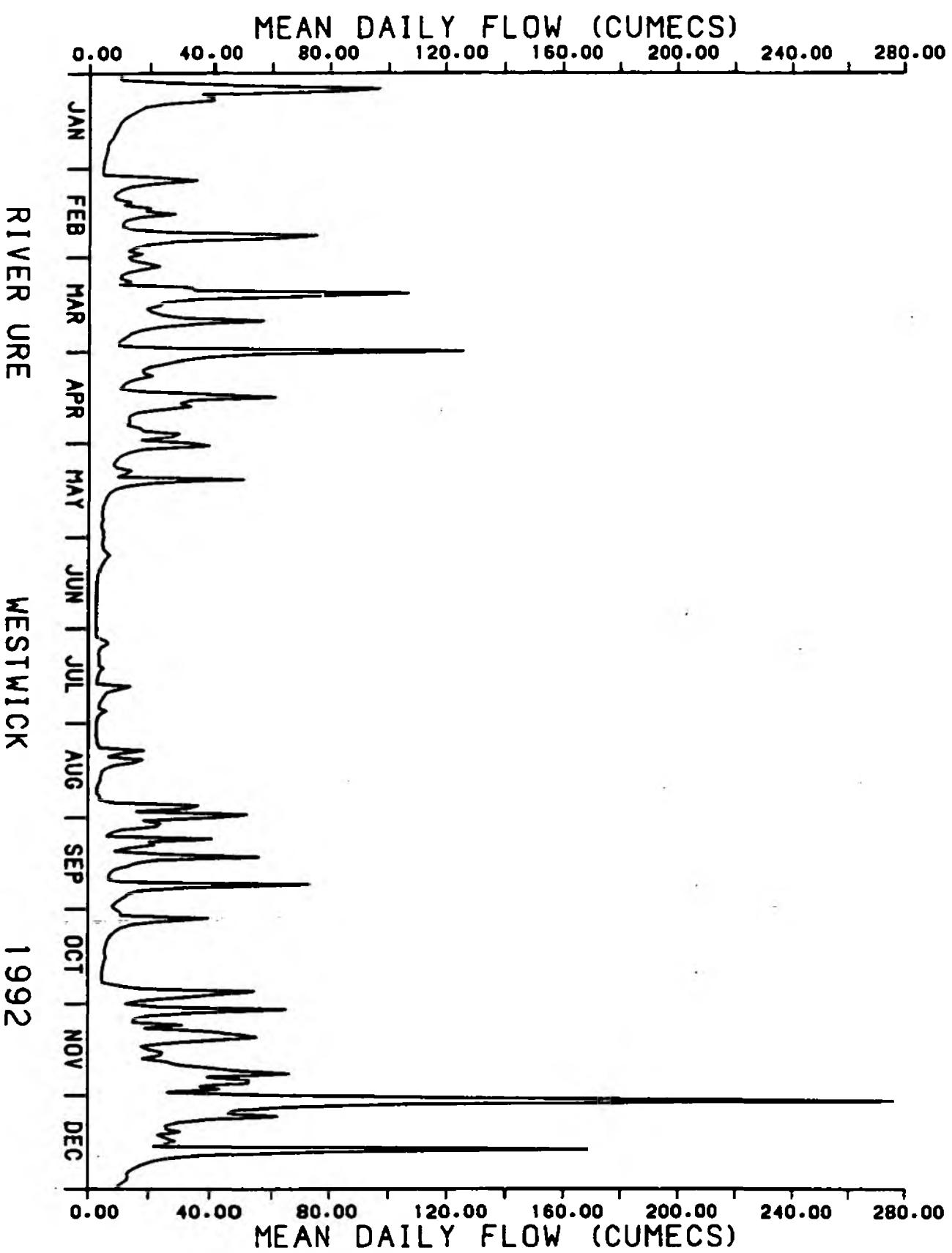
ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMECS) CALENDAR YEAR:- 1992

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	31/31	29/29	31/31	30/30	31/31	30/30	31/31	31/31	30/30	31/31	30/30	31/31
CUMEC DAYS	599.6	573.4	912.1	731.5	334.5	110.3	140.9	334.8	557.8	405.0	1067.	1461.
MINIMUM	4.520	4.314	9.760	10.51	4.207	2.613	2.654	2.564	6.334	4.481	14.96	9.696
MAXIMUM	97.36	76.05	126.4	61.68	50.33	7.288	14.35	51.64	73.47	53.93	66.99	276.6
MEAN	19.34	19.77	29.42	24.38	10.79	3.677	4.545	10.80	18.59	13.06	35.55	47.14
MEDIAN	10.33	15.18	20.79	19.52	7.426	2.881	3.607	4.144	13.34	7.242	33.00	25.85

ANNUAL FLOW STATISTICS

TOTAL NUMBER OF DAYS OF RECORD:- 366/366

TOTAL FLOW:-	7228.	CUMEC DAYS	MINIMUM MEAN DAILY FLOW:-	2.504	CUMECs				
MEAN FLOW:-	19.75	CUMECs	MAXIMUM MEAN DAILY FLOW:-	276.6	CUMECs				
MEDIAN FLOW:-	12.40	CUMECs	MAXIMUM INSTANTANEOUS FLOW:-	320.8	CUMECs 2/12				
			SEVEN DAY MINIMUM FLOW:-	2.681	CUMECs 23/6 - 30/6				
PERCENTAGE OF TIME:-	10	20	30	40	50	60	70	80	90
FLOW NOT EXCEEDED:-	3.267	4.651	6.099	9.382	12.31	16.09	21.21	29.17	41.18



NATIONAL RIVERS AUTHORITY : STATION:- 8912202 RIVER URE WESTWICK

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 34 OUT OF 34 PERIOD:- 1959 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:-	20.35	CUMECs	
MEDIAN FLOW:-	10.98	CUMECs	
MODAL FLOW:-	3.581	CUMECs	
MINIMUM MEAN DAILY FLOW:-	0.880	CUMECs	ON 25/ 8/1976
MAXIMUM MEAN DAILY FLOW:-	470.3	CUMECs	ON 24/ 2/1991
MAXIMUM INSTANTANEOUS FLOW:-	625.9	CUMECs	ON 24/ 2/1991 AT 12:00
DRY WEATHER FLOW:-	2.515	CUMECs	

MODAL FLOW CALCULATED WITH A 2.8% CLASS INTERVAL

This station has been recalibrated.

The new rating applies from November 1975 but so far , has only been applied from January 1982.
Reprocessing of the record will slightly increase high and low flows.

Long period analyses are available for the period 1982 to 1991.

NATIONAL RIVERS AUTHORITY : STATION:- 8912202 RIVER URE

WESTWICK

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 34 OUT OF 34 PERIOD:- 1959 TO 1992 SEASON:- JAN TO DEC

'FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION:- 8910920 RIVER WENT WALDEN STUBBS

ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMECS) CALENDAR YEAR:- 1992

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	31/31	29/29	31/31	30/30	31/31	30/30	31/31	31/31	30/30	31/31	30/30	31/31
CUMEC DAYS	8.091	5.545	7.260	7.250	5.338	4.536	6.363	6.238	7.997	14.26	19.61	25.07
MINIMUM	0.167	0.165	0.171	0.175	0.127	0.101	0.109	0.108	0.121	0.181	0.227	0.589
MAXIMUM	0.782	0.244	0.773	0.457	0.260	0.345	0.541	0.503	1.101	1.737	1.803	1.900
MEAN	0.261	0.191	0.234	0.242	0.172	0.151	0.205	0.201	0.267	0.460	0.654	0.809
MEDIAN	0.212	0.188	0.205	0.214	0.162	0.127	0.174	0.179	0.156	0.282	0.567	0.700

ANNUAL FLOW STATISTICS

TOTAL NUMBER OF DAYS OF RECORD:- 366/366

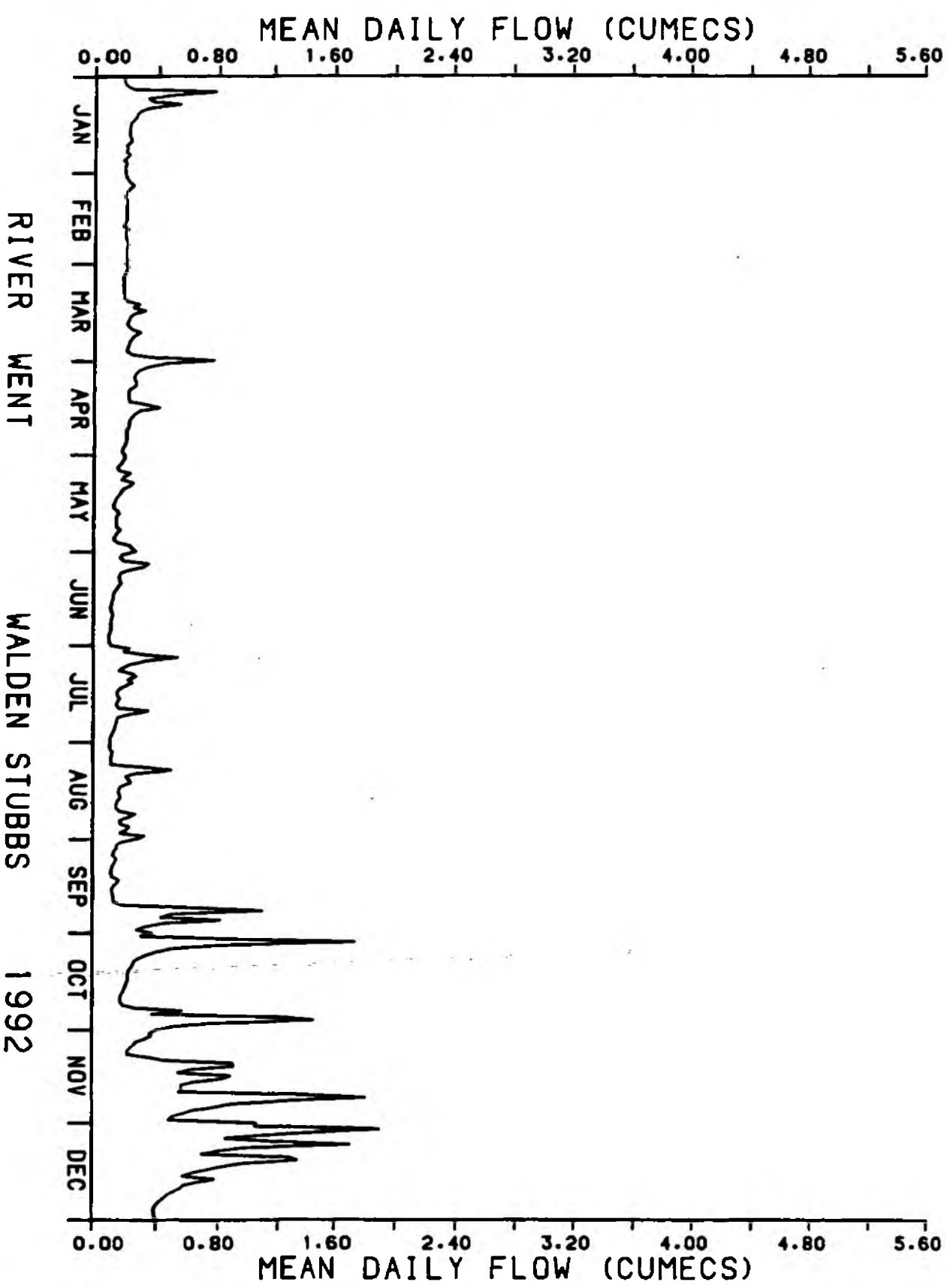
TOTAL FLOW:- 117.6 CUMEC DAYS MINIMUM MEAN DAILY FLOW:- 0.101 CUMECs

MEAN FLOW:- 0.321 CUMECs MAXIMUM MEAN DAILY FLOW:- 1.900 CUMECs

MEDIAN FLOW:- 0.205 CUMECs MAXIMUM INSTANTANEOUS FLOW:- 2.627 CUMECs 2/12
SEVEN DAY MINIMUM FLOW:- 0.109 CUMECs 23-29/6

PERCENTAGE OF TIME:- 10 20 30 40 50 60 70 80 90

FLOW NOT EXCEEDED:- 0.129 0.160 0.178 0.189 0.205 0.231 0.275 0.398 0.656



NATIONAL RIVERS AUTHORITY : STATION:- 8910920 RIVER WENT

WALDEN STUBBS

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 13 OUT OF 13 PERIOD:- 1980 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:- 0.563 CUMECs

MEDIAN FLOW:- 0.359 CUMECs

MODAL FLOW:- 0.195 CUMECs

MINIMUM MEAN DAILY FLOW:- 0.101 CUMECs ON 27/ 6/1992

MAXIMUM MEAN DAILY FLOW:- 15.01 CUMECs ON 1/ 6/1983

MAXIMUM INSTANTANEOUS FLOW:- 21.73 CUMECs ON 01/ 6/1983 AT 00:00

DRY WEATHER FLOW:- 0.195 CUMECs

MODAL FLOW CALCULATED WITH A 5.6% CLASS INTERVAL

NATIONAL RIVERS AUTHORITY : STATION:- 8910920 RIVER WENT

WALDEN STUBBS

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 13 OUT OF 13 PERIOD:- 1980 TO 1992 SEASON:- JAN TO DEC

FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION:- 8911903 RIVER WHARFE ADDINGHAM

ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMECS) CALENDAR YEAR:- 1992

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	31/31	29/29	31/31	30/30	31/31	30/30	31/31	31/31	30/30	31/31	30/30	31/31
CUMEC DAYS	425.0	363.7	745.0	467.4	211.7	67.32	73.40	224.1	327.0	292.0	711.2	752.5
MINIMUM	1.713	1.355	1.5.630	4.900	2.617	1.569	1.559	1.470	4.016	2.777	10.46	4.141
MAXIMUM	142.8	72.40	105.8	49.26	35.88	3.504	6.868	53.12	32.52	53.32	51.12	124.9
MEAN	13.71	12.54	24.03	15.58	6.830	2.244	2.368	7.228	10.90	9.418	23.71	24.27
MEDIAN	5.156	8.243	15.82	11.44	4.491	1.922	1.946	2.981	7.639	4.382	20.09	14.54

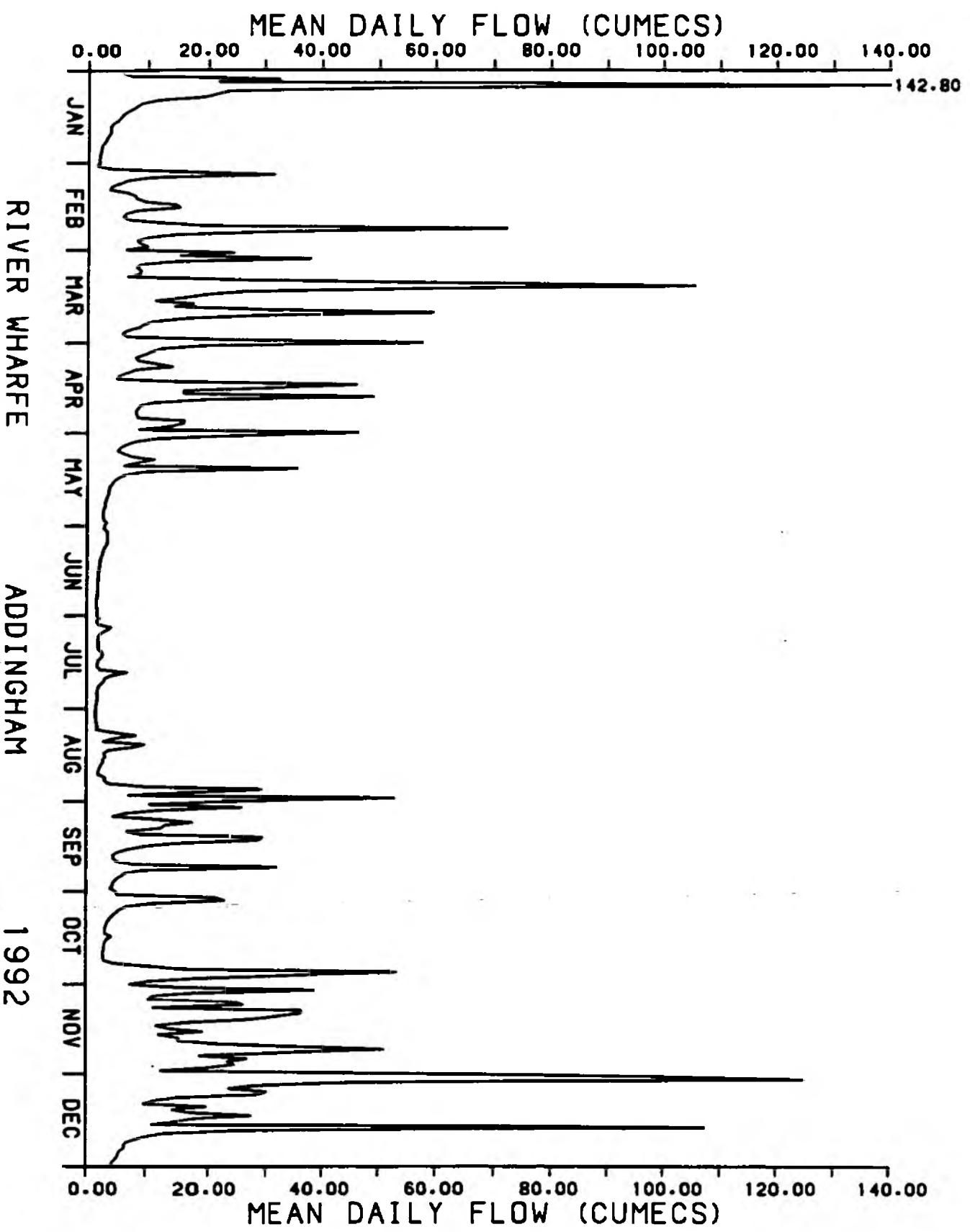
ANNUAL FLOW STATISTICS

TOTAL NUMBER OF DAYS OF RECORD:- 366/366

TOTAL FLOW:-	4660. CUMEC DAYS	MINIMUM MEAN DAILY FLOW:-	1.355 CUMECs
MEAN FLOW:-	12.73 CUMECs	MAXIMUM MEAN DAILY FLOW:-	142.8 CUMECs
MEDIAN FLOW:-	6.837 CUMECs	MAXIMUM INSTANTANEOUS FLOW:-	268.6 CUMECs 5/1
		SEVEN DAY MINIMUM FLOW:-	1.559 CUMECs 30/7-5/8

PERCENTAGE OF TIME:- 10 20 30 40 50 60 70 80 90

FLOW NOT EXCEEDED:- 1.869 2.762 3.504 5.012 6.806 8.995 12.32 18.08 28.60



NATIONAL RIVERS AUTHORITY : STATION:- 8911903 RIVER WHARFE ADDINGHAM

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 19 OUT OF 19 PERIOD:- 1974 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:- 14.42 CUMECs

MEDIAN FLOW:- 6.941 CUMECs

MODAL FLOW:- 1.767 CUMECs

MINIMUM MEAN DAILY FLOW:- 0.817 CUMECs ON 25/ 8/1976

MAXIMUM MEAN DAILY FLOW:- 287.4 CUMECs ON 23/ 2/1991

MAXIMUM INSTANTANEOUS FLOW:- 413.3 CUMECs ON 2/ 1/1982 AT 06:30

DRY WEATHER FLOW:- 1.456 CUMECs

MODAL FLOW CALCULATED WITH A 4.3% CLASS INTERVAL

This station has been recalibrated for high flows.

The new rating applies from the start of the record but, so far, has only been applied from January 1982. Reworking of the record will significantly decrease high flows.

Long period analyses are available for the period 1982 to 1991.

Flows quoted are "as measured". No allowance has been made for the effect of the Lobwood abstraction which is upstream of the station and was brought into service in 1980, or for the discharge from Grimwith Reservoir. (Compensation releases began in June 1984.)

NATIONAL RIVERS AUTHORITY : STATION:- 8911903 RIVER WHARFE

ADDINGTON

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 19 OUT OF 19 PERIOD:- 1974 TO 1992 SEASON:- JAN TO DEC

'FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION:- 8911902

RIVER WHARFE - ILKLEY

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 6 OUT OF 6 PERIOD:- 1970 TO 1975 SEASON:- JAN TO DEC

MEAN FLOW:- 12.02 CUMECs

MEDIAN FLOW:- 6.499 CUMECs

MODAL FLOW:- 2.163 CUMECs

MINIMUM MEAN DAILY FLOW:- 1.177 CUMECs ON 4/10/1972

MAXIMUM MEAN DAILY FLOW:- 150.8 CUMECs ON 22/ 1/1975

MAXIMUM INSTANTANEOUS FLOW:- 325.7 CUMECs ON 22/ 1/1975 AT 17:00

DRY WEATHER FLOW:- 1.560 CUMECs

MODAL FLOW CALCULATED WITH A 4.3% CLASS INTERVAL

NATIONAL RIVERS AUTHORITY : STATION:- 8911902

RIVER WHARFE - ILKLEY

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 6 OUT OF 6 PERIOD:- 1970 TO 1975 SEASON:- JAN TO DEC

FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

	0	1	2	3	4	5	6	7	8	9
0		1.283	1.569	1.692	1.764	1.838	1.913	1.989	2.067	2.144
10	2.197	2.250	2.331	2.441	2.580	2.667	2.751	2.839	2.933	3.016
20	3.107	3.198	3.291	3.431	3.574	3.650	3.768	3.842	3.937	4.033
30	4.135	4.235	4.338	4.430	4.512	4.618	4.700	4.778	4.867	4.994
40	5.089	5.195	5.298	5.417	5.532	5.646	5.799	5.951	6.150	6.333
50	6.481	6.619	6.734	6.916	7.054	7.292	7.546	7.756	7.978	8.199
60	8.523	8.913	9.099	9.279	9.558	9.871	10.15	10.36	10.80	11.15
70	11.65	11.99	12.57	13.15	13.76	14.19	14.77	15.21	15.59	16.11
80	16.80	17.99	18.95	20.01	20.69	22.15	23.36	25.20	26.28	27.77
90	30.15	32.50	34.53	36.49	39.20	42.34	47.30	50.66	56.31	66.55

100 150.8

NATIONAL RIVERS AUTHORITY : STATION:- 8912004 RIVER WHARFE FLINT MILL

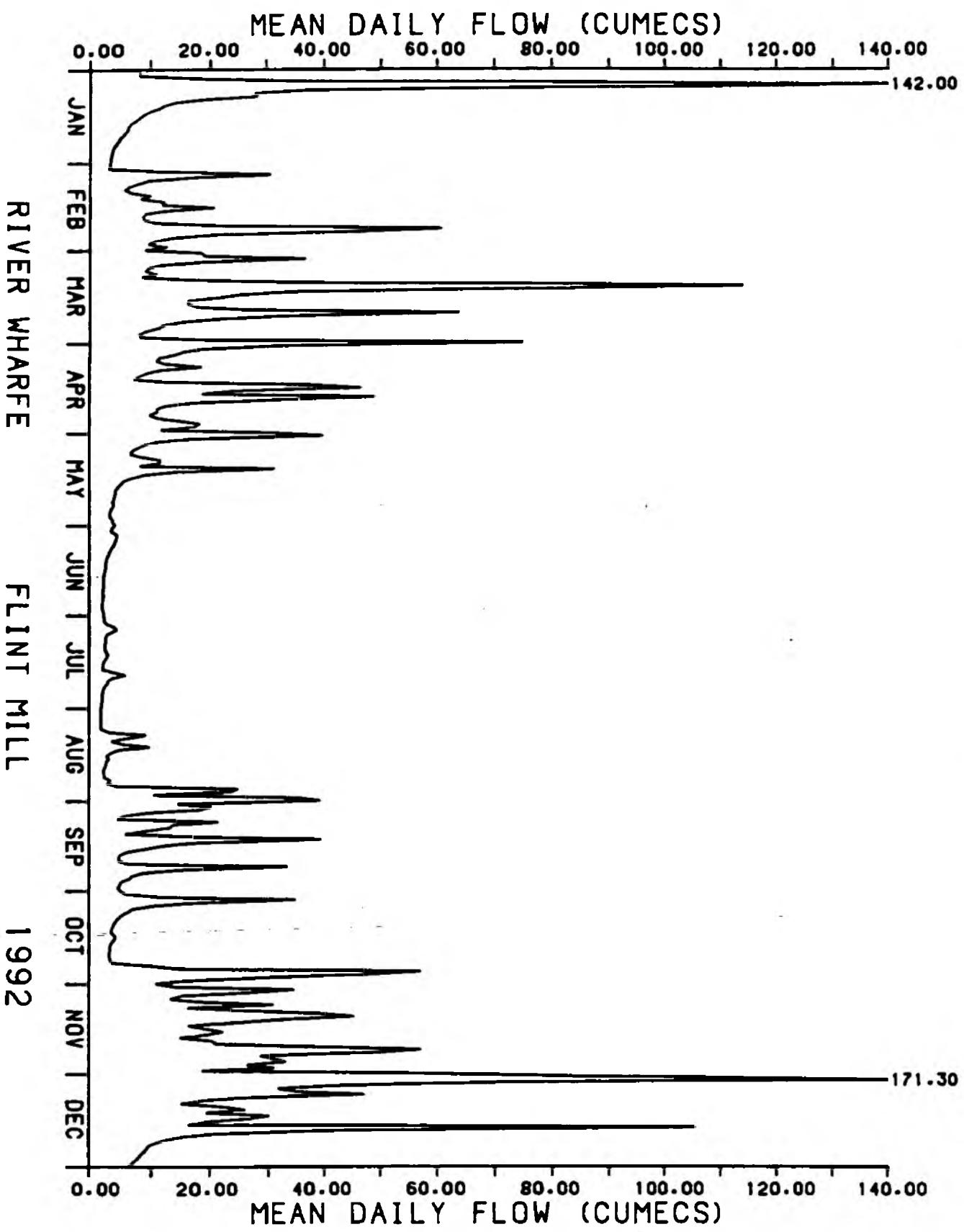
ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMECS) CALENDAR YEAR:- 1992

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	31/31	29/29	31/31	30/30	31/31	30/30	31/31	31/31	30/30	31/31	30/30	31/31
CUMEC DAYS	557.7	425.5	840.5	562.3	266.6	88.63	91.28	230.1	358.6	353.0	849.8	984.6
MINIMUM	3.339	3.140	7.893	7.067	3.330	2.197	2.020	1.932	4.856	3.416	13.53	6.720
MAXIMUM	142.0	60.87	114.4	49.27	39.96	4.650	6.086	39.47	39.66	57.20	58.90	171.3
MEAN	17.99	14.67	27.11	18.74	8.600	2.954	2.945	7.424	11.95	11.39	28.33	31.76
MEDIAN	8.063	11.16	18.86	14.59	5.613	2.599	2.663	3.401	8.980	5.081	26.37	19.73

ANNUAL FLOW STATISTICS

TOTAL NUMBER OF DAYS OF RECORD:- 366/366

TOTAL FLOW:-	5609.	CUMEC DAYS	MINIMUM MEAN DAILY FLOW:-	1.932	CUMECs				
MEAN FLOW:-	15.32	CUMECs	MAXIMUM MEAN DAILY FLOW:-	171.3	CUMECs				
MEDIAN FLOW:-	8.995	CUMECs	MAXIMUM INSTANTANEOUS FLOW:-	253.6	CUMECs				
			SEVEN DAY MINIMUM FLOW:-	1.978	CUMECs				
PERCENTAGE OF TIME:-	10	20	30	40	50	60	70	80	90
FLOW NOT EXCEEDED:-	2.599	3.486	4.366	6.466	8.969	11.90	16.34	21.65	35.30



NATIONAL RIVERS AUTHORITY : STATION:- 8912004 RIVER WHARFE FLINT MILL

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 27 OUT OF 27 PERIOD:- 1966 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:- 17.39 CUMECMS

MEDIAN FLOW:- 9.810 CUMECMS

MODAL FLOW:- 2.730 CUMECMS

MINIMUM MEAN DAILY FLOW:- 0.620 CUMECMS ON 23/ 8/1976

MAXIMUM MEAN DAILY FLOW:- 292.1 CUMECMS ON 23/ 2/1991

MAXIMUM INSTANTANEOUS FLOW:- 362.8 CUMECMS ON 03/ 1/1982 AT 19:30

DRY WEATHER FLOW:- 2.172 CUMECMS

MODAL FLOW CALCULATED WITH A 3.0% CLASS INTERVAL

This station has been recalibrated.

The new rating applies from the start of the record , but so far, has only been applied from January 1982.

Reprocessing of the record will increase high and low flows.

Long period analyses are available for the period 1982 to 1991.

NATIONAL RIVERS AUTHORITY : STATION:- 8912004 RIVER WHARFE

FLINT MILL

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 27 OUT OF 27 PERIOD:- 1966 TO 1992 SEASON:- JAN TO DEC

FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION:- 8910220 RIVER WHITTING SHEEPBRIDGE

ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMECS) CALENDAR YEAR:- 1992

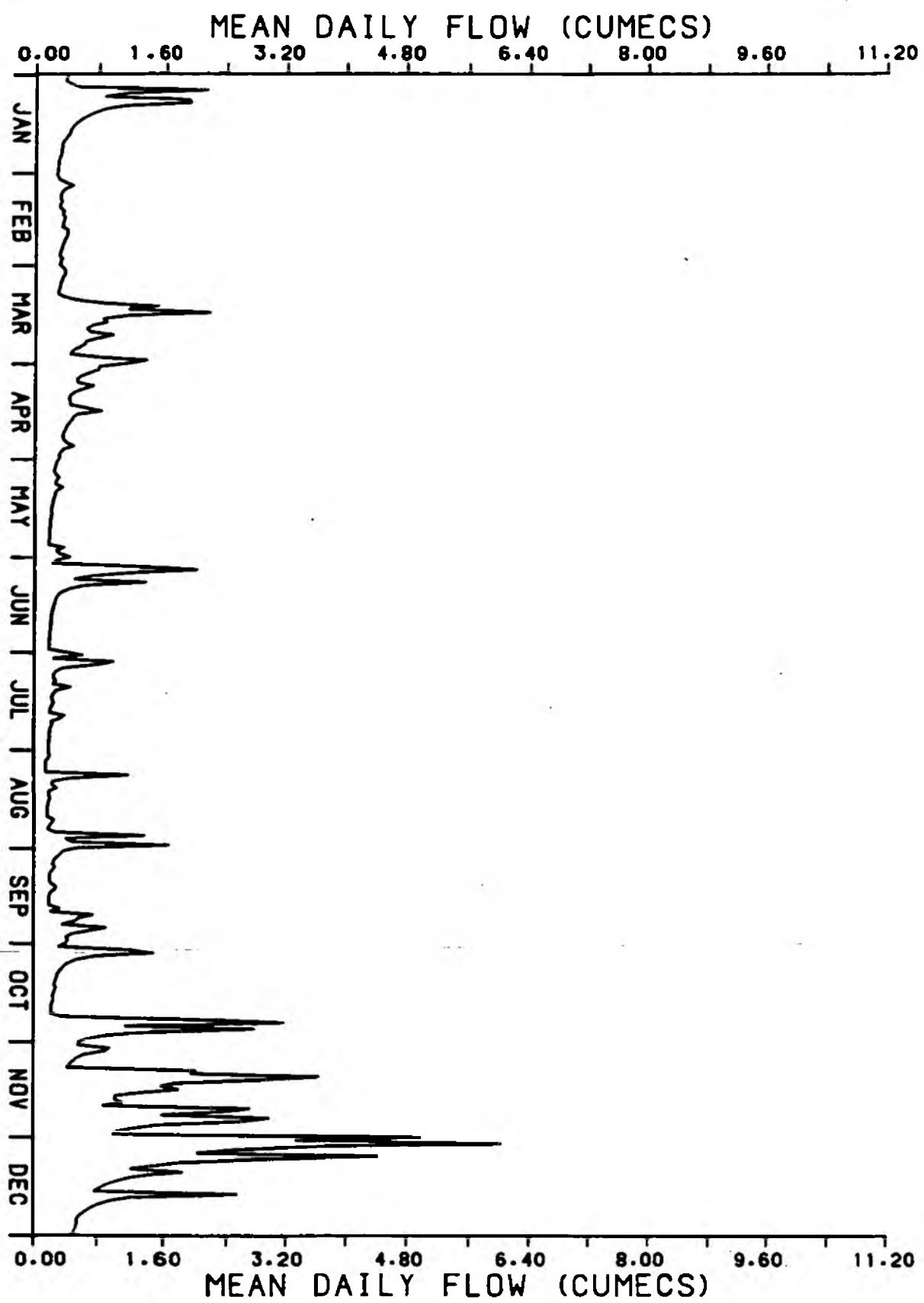
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	31/31	29/29	31/31	30/30	31/31	30/30	31/31	31/31	30/30	31/31	30/30	31/31
CUMEC DAYS	19.81	9.956	22.52	15.05	7.725	13.50	9.288	10.90	10.50	22.54	48.42	48.50
MINIMUM	0.266	0.270	0.281	0.301	0.176	0.179	0.182	0.145	0.189	0.219	0.430	0.479
MAXIMUM	2.135	0.475	2.175	0.851	0.454	2.036	1.005	1.666	0.924	3.187	5.016	6.049
MEAN	0.639	0.343	0.726	0.502	0.249	0.450	0.300	0.352	0.350	0.727	1.614	1.565
MEDIAN	0.430	0.333	0.644	0.457	0.243	0.239	0.237	0.197	0.277	0.358	1.329	1.034

ANNUAL FLOW STATISTICS

TOTAL NUMBER OF DAYS OF RECORD:- 366/366

TOTAL FLOW:-	238.7	CUMEC DAYS	MINIMUM MEAN DAILY FLOW:-	0.145	CUMECs				
MEAN FLOW:-	0.652	CUMECs	MAXIMUM MEAN DAILY FLOW:-	6.049	CUMECs				
MEDIAN FLOW:-	0.368	CUMECs	MAXIMUM INSTANTANEOUS FLOW:-	9.801	CUMECs 24/11				
			SEVEN DAY MINIMUM FLOW:-	0.168	CUMECs 1-7/8				
PERCENTAGE OF TIME:-	10	20	30	40	50	60	70	80	90
FLOW NOT EXCEEDED:-	0.197	0.228	0.271	0.314	0.366	0.455	0.570	0.809	1.414

RIVER WHITTING SHEEPBRIDGE 1992



NATIONAL RIVERS AUTHORITY : STATION:- 8910220 RIVER WHITTING SHEEPBRIDGE

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 16 OUT OF 16 PERIOD:- 1977 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:- 0.822 CUMECs

MEDIAN FLOW:- 0.432 CUMECs

MODAL FLOW:- 0.190 CUMECs

MINIMUM MEAN DAILY FLOW:- 0.130 CUMECs ON 11/10/1990

MAXIMUM MEAN DAILY FLOW:- 24.61 CUMECs ON 22/ 6/1982

MAXIMUM INSTANTANEOUS FLOW:- 49.23 CUMECs ON 22/ 6/1982 AT 23:15

DRY WEATHER FLOW:- 0.174 CUMECs

MODAL FLOW CALCULATED WITH A 5.0% CLASS INTERVAL

NATIONAL RIVERS AUTHORITY : STATION:- 8910220 RIVER WHITTING SHEEPBRIDGE

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 16 OUT OF 16 PERIOD:- 1977 TO 1992 SEASON:- JAN TO DEC

FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION:- 8912320 RIVER WISKE

KIRBY WISKE

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 13 OUT OF 13 PERIOD:- 1980 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:- 3.265 CUMECs

MEDIAN FLOW:- 0.599 CUMECs

MODAL FLOW:- 0.271 CUMECs

MINIMUM MEAN DAILY FLOW:- 0.132 CUMECs ON 6/ 8/1990

MAXIMUM MEAN DAILY FLOW:- 113.7 CUMECs ON 24/ 2/1991

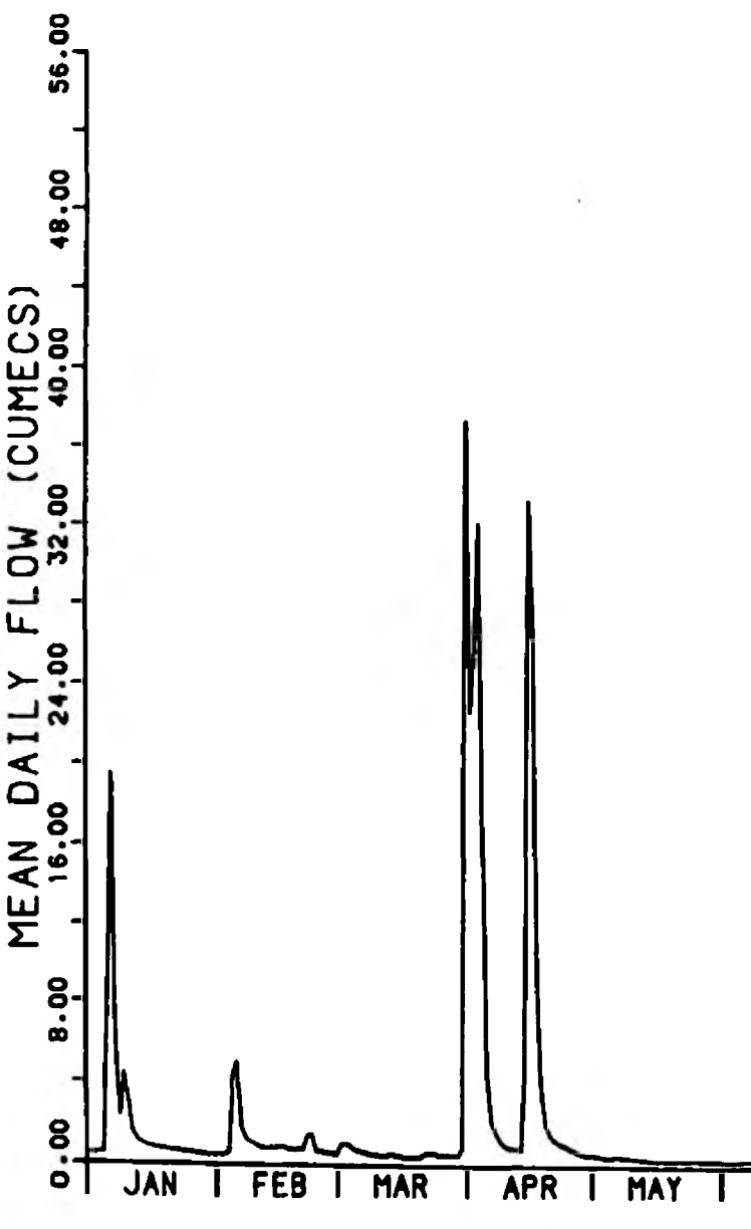
MAXIMUM INSTANTANEOUS FLOW:- 128.6 CUMECs ON 24/ 2/1991 AT 10:00

DRY WEATHER FLOW:- 0.226 CUMECs

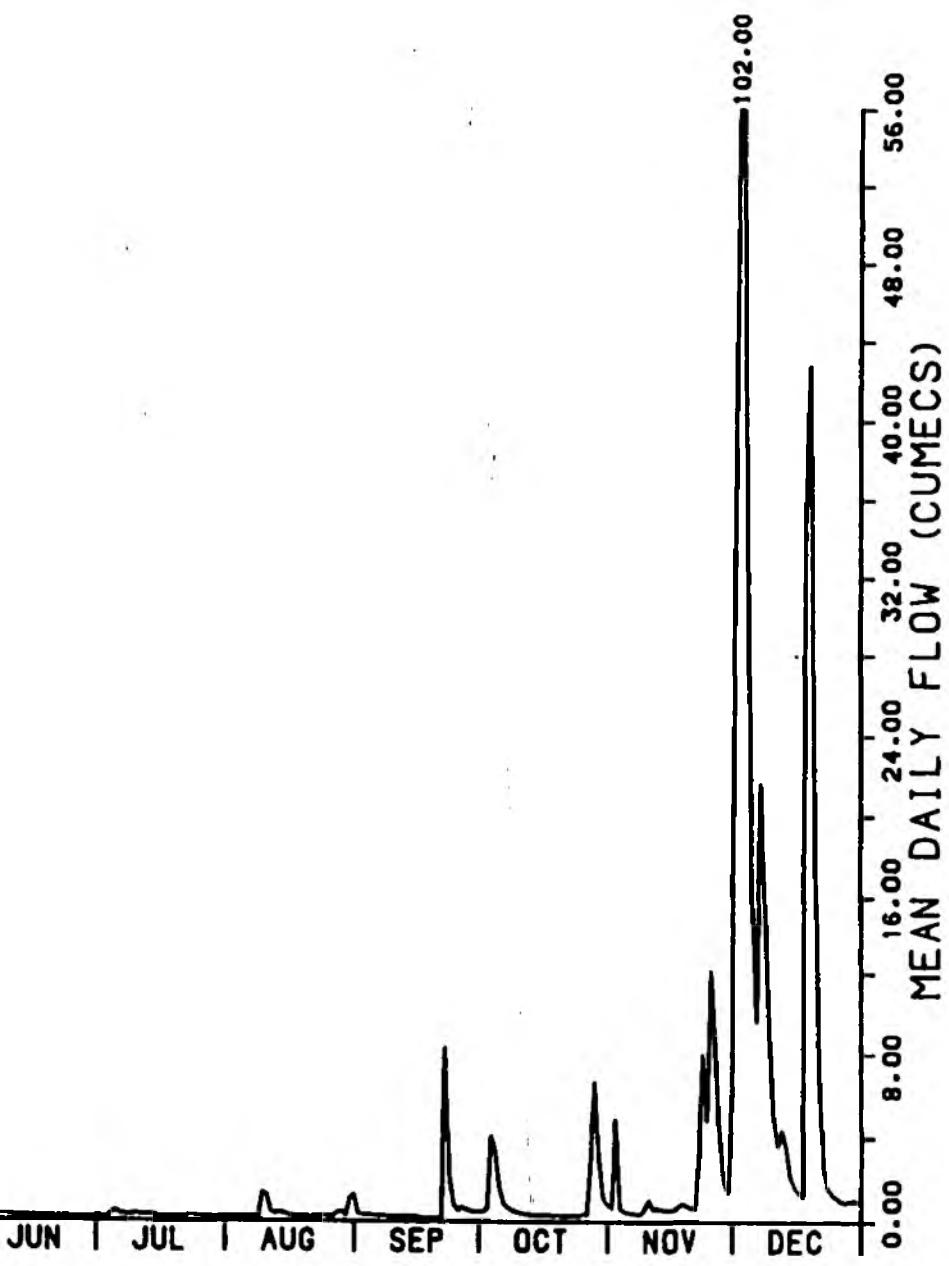
MODAL FLOW CALCULATED WITH A 8.3% CLASS INTERVAL

This weir may be subject to drowning caused by weed growth.

A downstream chart record is available for part of the period of record.



RIVER WISKE



KIRBY WISKE

1992

NATIONAL RIVERS AUTHORITY : STATION:- 8912320 RIVER WISKE

KIRBY WISKE

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 13 OUT OF 13 PERIOD:- 1980 TO 1992 SEASON:- JAN TO DEC

FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

NATIONAL RIVERS AUTHORITY : STATION:- 8912320 RIVER WISKE KIRBY WISKE

ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMECS) CALENDAR YEAR:- 1992

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	31/31	29/29	31/31	30/30	31/31	30/30	31/31	31/31	30/30	31/31	30/30	31/31
CUMEC DAYS	59.23	29.30	52.91	198.0	10.49	6.618	8.309	12.86	19.88	32.30	67.02	443.1
MINIMUM	0.368	0.377	0.354	0.487	0.263	0.169	0.196	0.207	0.177	0.248	0.367	0.907
MAXIMUM	19.53	4.999	37.36	33.27	0.513	0.305	0.475	1.423	8.421	6.687	12.17	102.0
MEAN	1.911	1.010	1.707	6.601	0.338	0.221	0.268	0.415	0.663	1.042	2.234	14.29
MEDIAN	0.586	0.681	0.470	1.095	0.302	0.209	0.244	0.258	0.266	0.358	0.682	3.618

ANNUAL FLOW STATISTICS

TOTAL NUMBER OF DAYS OF RECORD:- 366/366

TOTAL FLOW:-	940.1	CUMEC DAYS	MINIMUM MEAN DAILY FLOW:-	0.169	CUMECs
MEAN FLOW:-	2.569	CUMECs	MAXIMUM MEAN DAILY FLOW:-	102.0	CUMECs
MEDIAN FLOW:-	0.470	CUMECs	MAXIMUM INSTANTANEOUS FLOW:-	108.6	CUMECs 2/12
			SEVEN DAY MINIMUM FLOW:-	0.176	CUMECs 22-28/6

PERCENTAGE OF TIME:-	10	20	30	40	50	60	70	80	90
FLOW NOT EXCEEDED:-	0.217	0.261	0.296	0.377	0.469	0.567	0.734	1.160	4.327

NATIONAL RIVERS AUTHORITY : STATION:- 8911403 RIVER WORTH KEIGHLEY

ANNUAL RIVER FLOW RECORD MONTHLY FLOW STATISTICS (BASED ON MDF IN CUMECS) CALENDAR YEAR:- 1992

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DAYS OF DATA	31/31	29/29	31/31	30/30	31/31	30/30	31/31	31/31	30/30	31/31	30/30	31/31
CUMEC DAYS	61.01	30.16	71.35	42.36	22.60	10.44	11.08	14.25	18.86	34.29	73.24	79.26
MINIMUM	0.500	0.564	0.729	0.645	0.352	0.262	0.299	0.261	0.394	0.352	1.096	0.690
MAXIMUM	15.94	3.390	7.952	3.093	2.010	0.697	0.688	1.963	1.087	5.493	7.609	9.227
MEAN	1.968	1.040	2.302	1.412	0.729	0.348	0.357	0.460	0.629	1.106	2.441	2.557
MEDIAN	0.906	0.869	1.749	1.214	0.579	0.312	0.333	0.312	0.588	0.519	2.126	1.864

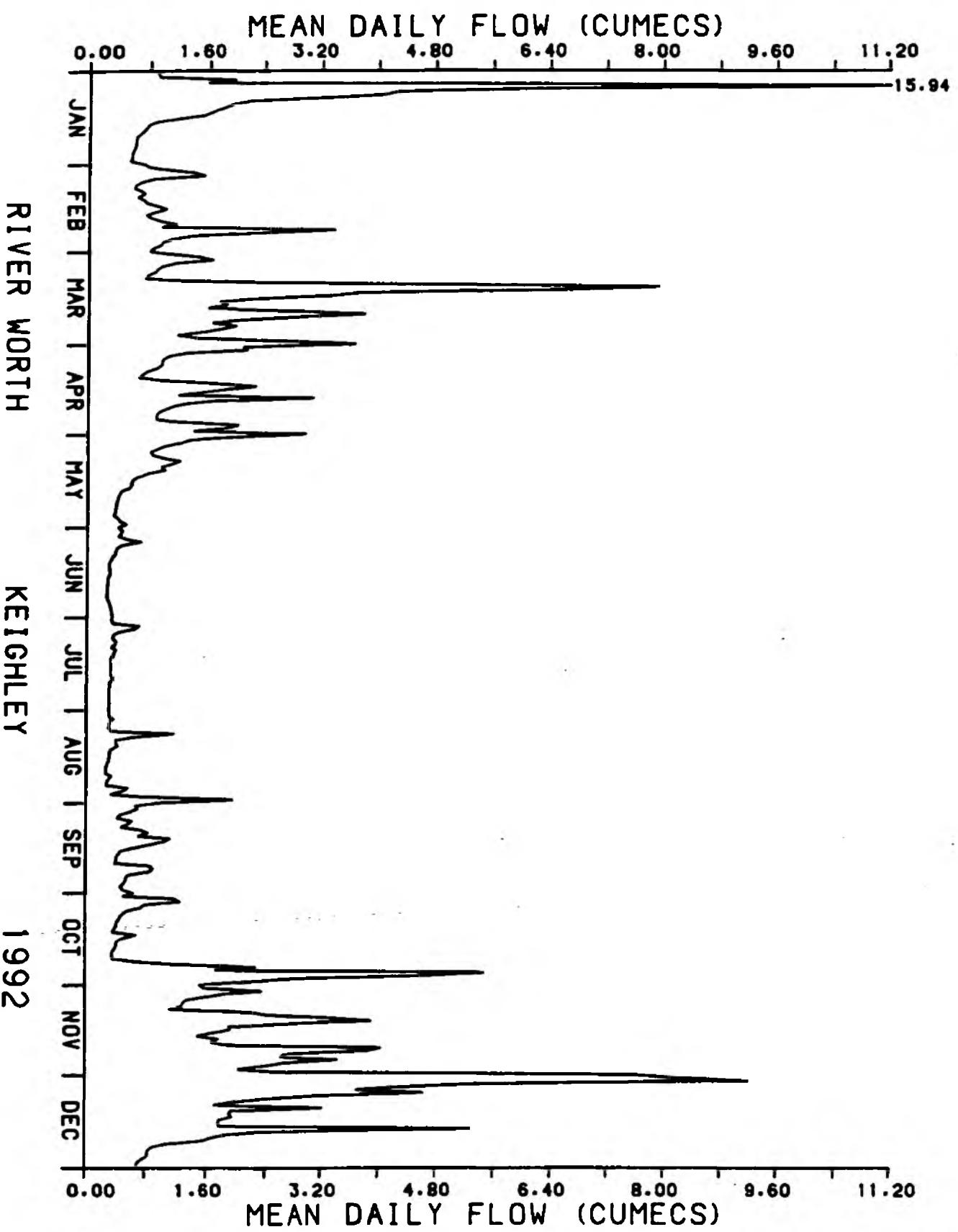
ANNUAL FLOW STATISTICS

TOTAL NUMBER OF DAYS OF RECORD:- 366/366

TOTAL FLOW:-	468.9	CUMEC DAYS	MINIMUM MEAN DAILY FLOW:-	0.261	CUMECs
MEAN FLOW:-	1.281	CUMECs	MAXIMUM MEAN DAILY FLOW:-	15.94	CUMECs
MEDIAN FLOW:-	0.789	CUMECs	MAXIMUM INSTANTANEOUS FLOW:-	27.89	CUMECs 5/1
			SEVEN DAY MINIMUM FLOW:-	0.270	CUMECs 18-24/6

PERCENTAGE OF TIME:- 10 20 30 40 50 60 70 80 90

FLOW NOT EXCEEDED:- 0.309 0.372 0.466 0.614 0.789 0.973 1.332 1.860 2.672



NATIONAL RIVERS AUTHORITY : STATION:- 8911403 RIVER WORTH

KEIGHLEY

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 12 OUT OF 12 PERIOD:- 1981 TO 1992 SEASON:- JAN TO DEC

MEAN FLOW:- 1.365 CUMECs

MEDIAN FLOW:- 0.799 CUMECs

MODAL FLOW:- 0.455 CUMECs

MINIMUM MEAN DAILY FLOW:- 0.135 CUMECs ON 19/ 8/1984

MAXIMUM MEAN DAILY FLOW:- 16.41 CUMECs ON 21/12/1991

MAXIMUM INSTANTANEOUS FLOW:- 27.89 CUMECs ON 05/ 1/1992 AT 14:00

DRY WEATHER FLOW:- 0.286 CUMECs

MODAL FLOW CALCULATED WITH A 11.1% CLASS INTERVAL

This record should be used with caution.

It was designed as a low flow measuring station , and at higher flows
the measuring weir is bypassed.

NATIONAL RIVERS AUTHORITY : STATION:- 8911403 RIVER WORTH

KEIGHLEY

LONG PERIOD RIVER FLOW RECORD

NUMBER OF YEARS IN RECORD:- 12 OUT OF 12 PERIOD:- 1981 TO 1992 SEASON:- JAN TO DEC

'FLOW NOT EXCEEDED FOR GIVEN PERCENTAGE OF PERIOD

**NATIONAL RIVERS AUTHORITY
YORKSHIRE REGION**

ANNUAL RAINFALL REPORT 1992

National Rivers Authority
Northumbria & Yorkshire Region
Olympia House
Gelder Lane
Gelder Road
Leeds
LS12 6DD

August 1993

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The assistance of the rainfall observers who have provided information month by month is gratefully acknowledged.

Requests for information should be made directly to the NRA Northumbria and Yorkshire Region at the address shown on the preceding page, not to individual observers.

RAINFALL DURING 1992, A BRIEF DESCRIPTION

The average rainfall over Yorkshire during 1992 is estimated as 809mm representing 99% of the long term average (LTA) for the standard period 1941-70. As is often the case, this close-to-average total masks a year of some variability in rainfall with monthly totals ranging from 54% to 165% of LTA.

With the exception of a short, wet interlude in the first week, 1992 began with high pressure dominant producing relatively stable conditions of fog and frosts during January and February. The east of the Region was particularly dry. The first half of March continued rather dry and mild but, around mid-month, conditions became much more unsettled and wintry. A north-eastern airflow brought rain, hail, sleet and snow particularly to the east and the month as a whole ended with well-above average precipitation (165% LTA). Unsettled conditions continued through April.

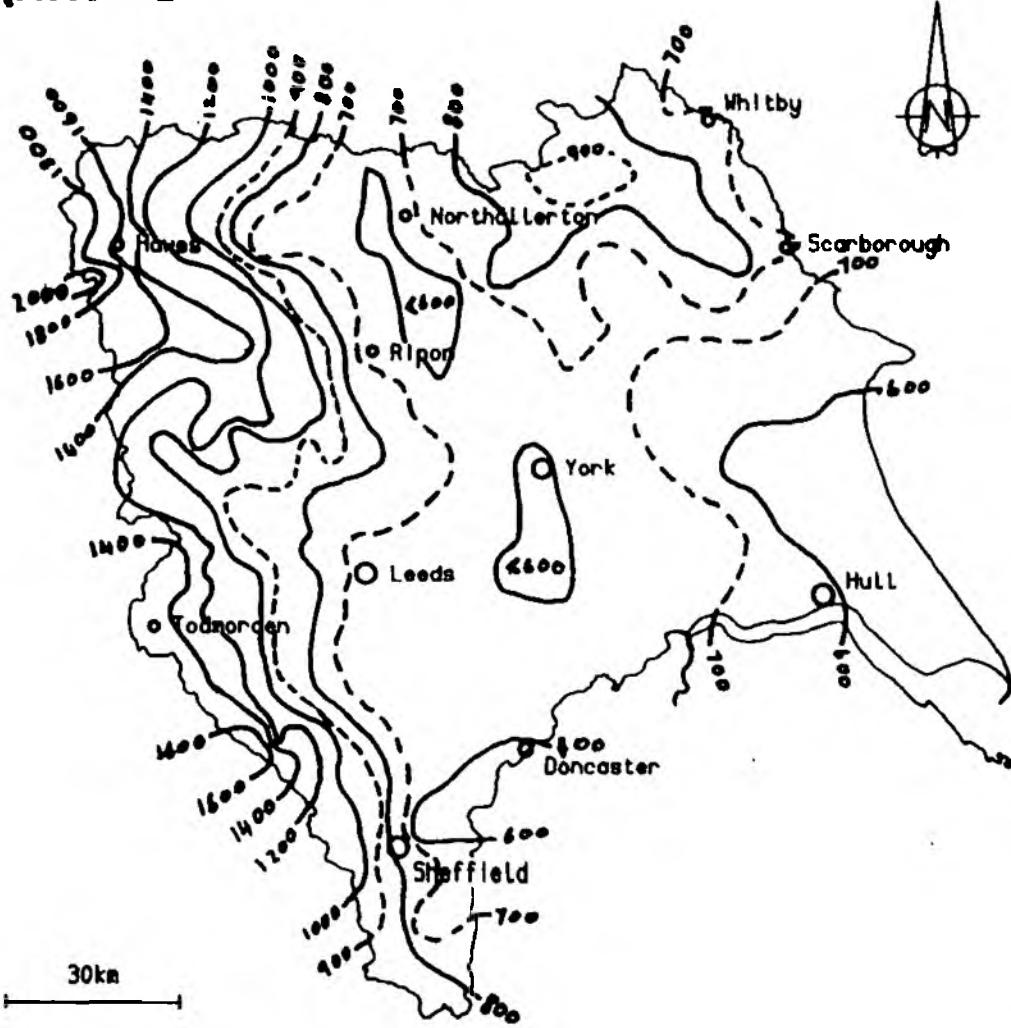
May and June saw a further reversal in fortunes with a change to hot, mainly dry conditions and high pressure dominating for lengthy periods. Relatively few rain-bearing systems crossed the Region but convectional rainfall was encouraged and much of the 2 month total came from thundery spells especially in early and late June. July was substantially wetter than May and June but was still hot, increasingly humid with lengthy dry spells and a large proportion of rainfall from thundery storms and showers.

A succession of Atlantic frontal systems dictated the weather during August and September, both months being rather wet and cool. In some areas much of September's rain was attributable to a notable event on the 22nd/23rd. A slow-moving frontal system with associated thunder cells produced intense falls especially in the east of the Region. Ruswarp recorded 72.2mm and Scaling Reservoir 55.7mm both on the 22nd.

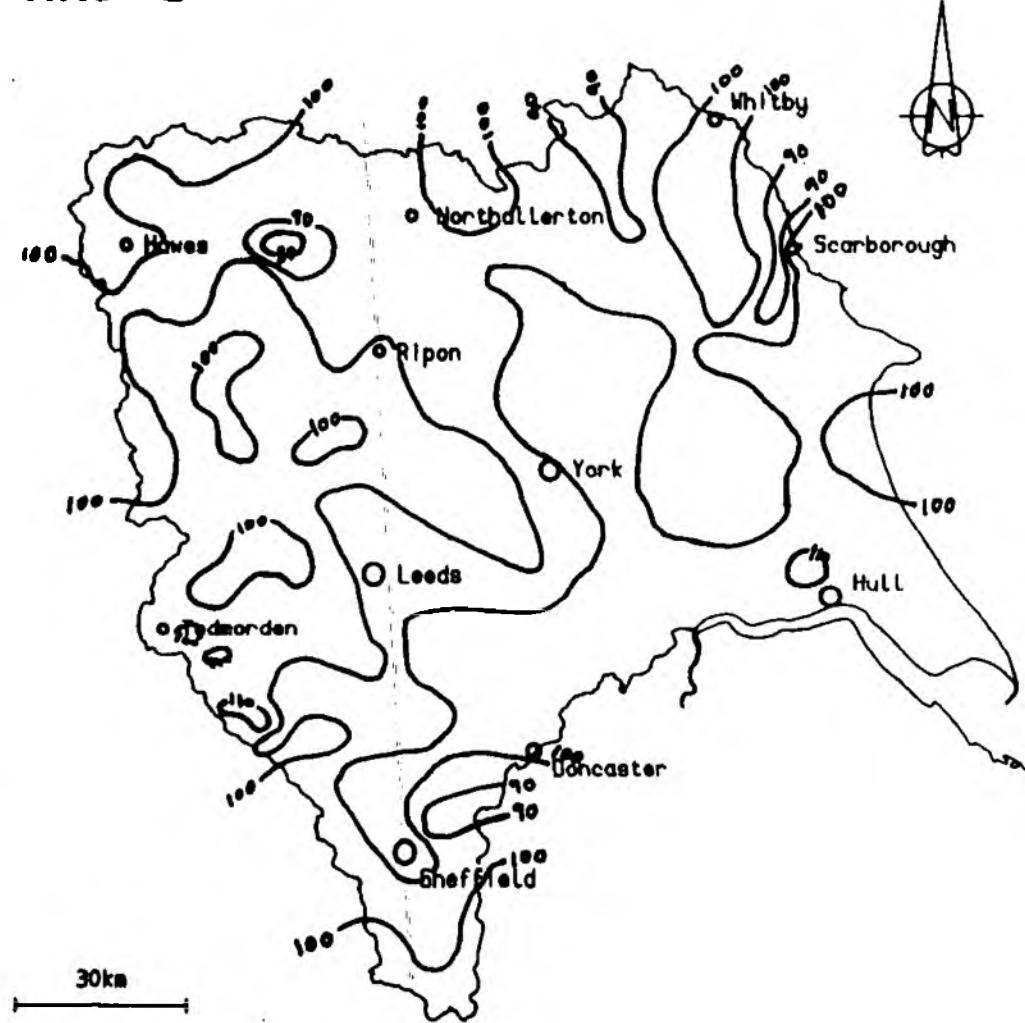
During October, high pressure over the North Atlantic resulted in winds from the northern sector and, in consequence, unusually cold and generally wet conditions. There were fairly widespread snowfalls during the last week of the month. Westerlies predominated through November producing markedly higher rainfall in the Pennines. Mild and unsettled weather continued during the first half of December with especially high rainfalls recorded in the west of the Region on the 1st. Subsequently an anticyclone across Northern Europe extended westwards producing stable weather conditions. Fog and frost were widespread with relatively little rainfall especially in the east.

NATIONAL RIVERS AUTHORITY - Yorkshire Region
RAINFALL OVER THE AREA FOR 1992

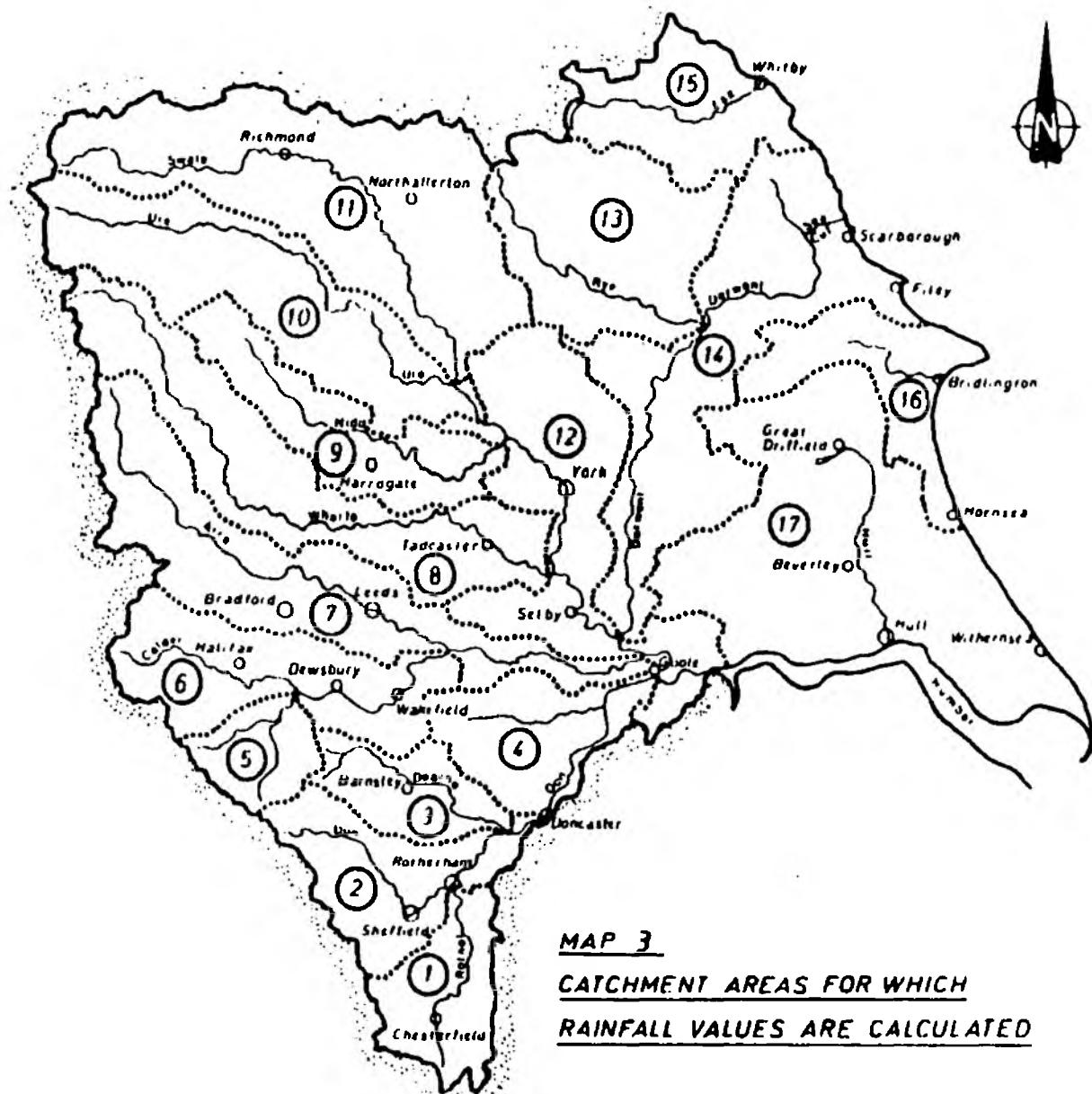
MAP 1



MAP 2



NOS	CATCHMENT
1	NOTHERN
2	UPPER DON
3	DEARNE
4	LOWER DON
5	COINE
6	CALDER
7	AIRE
8	WHARFE
9	NIDDA
10	URE
11	SWALE
12	DUSE
13	RYE
14	DERWENT
15	ESSE
16	GYPSY RACE
17	HULL and HUDDERNESS



Notes

The calculation of all long term averages used in the tables and maps is based on the standard period 1941-70.

The columns from left to right in Table 4 give the station name, its National Grid Reference, the height of the station in metres above mean sea level, the monthly totals of rainfall, the annual total and its percentage of the long term average. Where the record of a station does not cover sufficient length of time, the long term average has been estimated.

Abbreviations

NA - no record available.

(PIT) - the station has a pit gauge, with the rim at ground level, surrounded by an anti-splash grid.

Changes to the Network

The following rainfall stations were terminated during 1992:

Derwent : Wykeham Forest
Hull : Lowthorpe

The NRA would like to express its thanks to the observers at these sites for their assistance over the years.

Table 1
Monthly Rainfall during 1992
for the Yorkshire Region

Month	Rainfall (mm)	Rainfall % LTA	3 month % LTA
January	46	60	85
February	41	65	70
March	86	165	90
April	65	123	114
May	32	54	112
June	32	57	77
July	79	116	78
August	94	108	97
September	92	130	117
October	75	109	115
November	99	113	117
December	68	91	104
1992		809	99

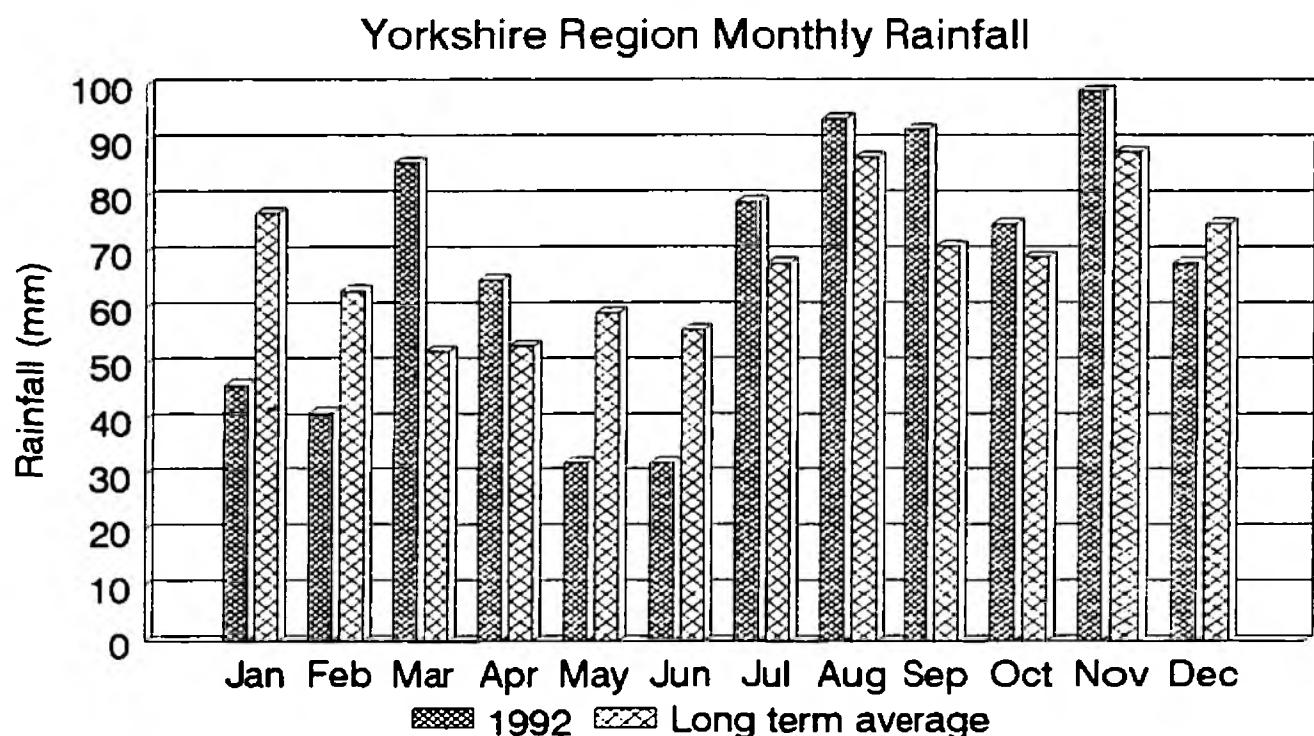


Table 2

Average Rainfall (mm) during 1992 for the main catchment areas of Yorkshire

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	1992
ROTHER	34	22	62	37	47	61	68	101	66	63	108	61	730
UPPER DON	51	33	98	52	52	53	75	111	78	84	125	78	890
DEARNE	37	23	60	33	42	54	70	85	78	75	93	51	701
LOWER DON	32	14	53	33	38	42	77	81	88	63	61	39	621
CALDER	71	56	110	73	56	35	82	135	87	116	160	86	1067
COLNE	76	70	125	85	62	43	86	167	99	124	167	102	1206
AIRE	64	46	102	65	45	28	68	111	82	82	117	62	872
WHARFE	65	65	125	87	46	26	69	124	96	82	132	93	1010
NIDD	57	54	104	75	44	24	67	117	103	71	122	85	923
URE	57	71	121	91	48	26	74	129	113	72	139	115	1056
SWALE	43	43	83	75	27	27	68	95	92	67	99	79	798
RYE	35	40	93	86	13	26	76	82	102	84	87	66	790
ESK	33	38	79	74	9	38	79	67	124	97	78	75	791
DERWENT	31	32	71	63	17	27	85	64	91	79	66	46	672
OUSE	33	23	60	45	31	31	71	73	81	62	61	35	606
GYPSEY RACE	31	27	70	57	10.5	41	107	76	96	77	70	57	720
HULL & HOLDERNESS	36	26	63	47	17	34	105	67	79	53	57	43	627

Table 3

Rainfall during 1992 for the main catchment areas of Yorkshire
(Expressed as a Percentage of the Long Term Average)

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	1992
ROTHER	50	39	123	74	80	120	110	139	106	108	133	95	99
UPPER DON	58	46	159	85	77	93	108	132	106	115	128	91	100
DEARNE	58	43	127	70	74	112	118	115	138	136	125	85	101
LOWER DON	62	32	135	80	77	90	134	114	175	133	95	86	102
CALDER	76	73	172	108	79	55	103	131	100	134	156	89	108
COLNE	67	79	164	106	78	61	98	149	101	124	138	86	105
AIRE	78	68	177	108	71	48	94	116	102	104	128	73	98
WHARFE	68	82	193	126	65	40	86	117	105	91	126	96	100
NIDD	64	73	167	117	67	41	93	122	126	89	122	96	99
URE	56	82	175	127	68	41	97	127	122	74	125	110	101
SWALE	56	65	160	135	46	48	103	108	127	95	112	104	97
RYE	46	64	186	162	23	43	110	91	148	126	96	91	97
ESK	43	58	161	143	16	64	114	74	180	140	78	98	95
DERWENT	47	60	163	135	33	53	137	83	153	139	84	73	95
OUSE	60	52	158	107	66	68	127	100	149	128	96	72	98
GYPSY RACE	45	50	162	121	20	81	171	99	163	134	86	87	100
HULL & HOLDerness	59	53	152	102	34	68	177	91	141	101	79	76	94

Monthly rainfall (mm) during 1992 for stations in the N.R.A. Yorkshire Region network

Table 4

Catchment	Station	NGR	Alt (m)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year	LTA	%LTA
AIRE	BRADFORD - LISTER PARK	SE 149 352	134	62.0	45.9	94.9	55.3	32.2	29.9	50.3	120.2	69.0	79.6	124.9	81.7	845.9	867	98
AIRE	DOB PARK RES.	SE 077 342	245	85.5	63.3	130.3	80.7	46.7	23.4	56.0	124.5	78.9	108.3	156.8	81.1	1035.5	1122	92
AIRE	EARBY S.WKS	SD 909 473	128	85.3	69.3	118.7	66.6	40.6	30.3	78.7	131.3	92.3	88.8	158.0	92.0	1051.9	1053	100
AIRE	ELSLACK RES. NO.2	SD 937 485	199	85.6	71.0	129.5	64.2	43.8	28.5	88.1	128.7	88.8	91.4	152.1	93.2	1064.9	1070	100
AIRE	EMBSAY RES.	SE 001 544	204	84.4	70.5	134.8	81.0	52.5	20.2	71.2	133.4	71.3	85.5	143.1	86.8	1034.7	1000	103
AIRE	PARNLEY HALL	SE 246 324	123	53.5	31.0	75.2	42.6	51.7	27.5	68.5	95.4	65.6	86.0	111.1	46.3	754.4	723	104
AIRE	GARGRAVE S.WKS	SD 944 536	107	82.4	77.8	125.5	64.2	34.3	27.3	37.6	120.5	70.4	83.0	145.9	74.0	942.9	1000	94
AIRE	GILSTEAD FILTERS	SE 119 394	174	51.6	43.5	83.3	67.3	52.5	22.9	59.7	102.7	60.2	74.8	122.8	76.8	818.1	897	91
AIRE	KNOSTROP S.WKS	SE 324 315	23	46.5	20.3	73.4	34.0	30.9	20.9	56.4	88.4	73.6	72.2	87.1	35.2	638.9	652	98
AIRE	LEBDS - ALLERTON GRANGE	SE 305 379	137	55.4	28.1	72.5	45.7	46.1	26.7	72.8	97.3	89.6	74.5	99.4	51.3	759.4	744	102
AIRE	LOWER LAITHES RES.	SE 015 367	236	107.1	79.6	149.4	123.3	39.5	26.3	76.9	148.9	96.6	112.2	183.9	117.1	1260.8	1239	102
AIRE	LOWER LAITHES RES. (PIT)	SE 015 367	236	112.9	89.0	171.7	111.6	44.6	28.5	81.2	149.2	97.7	119.9	195.0	125.7	1327.0	NA	NA
AIRE	MALHAM TARN NO.2	SD 894 672	385	102.6	102.7	203.0	146.5	52.9	32.6	86.7	164.0	143.1	119.4	203.0	155.8	1512.3	1485	102
AIRE	MALHAM TARN NO.3	SD 894 672	385	110.7	134.7	235.0	176.8	61.4	34.6	91.5	173.1	148.5	126.3	220.6	168.0	1681.2	NA	NA
AIRE	MARLEY S.WKS	SE 087 412	83	NA	NA	104.4	64.0	45.5	21.1	63.7	102.2	51.0	86.1	NA	80.9	NA	837	NA
AIRE	REVA RES.	SE 153 425	221	62.3	40.0	104.1	69.4	58.7	18.8	63.8	87.2	66.0	80.2	128.7	80.3	859.5	843	102
AIRE	SALTERFORTH	SD 882 442	219	110.0	101.7	182.1	80.3	60.2	24.1	85.2	154.0	94.4	112.7	179.2	90.6	1274.5	1248	102
AIRE	SILSDEN	SE 044 475	171	78.8	57.2	121.3	63.8	41.9	23.8	60.8	118.5	76.0	76.3	122.7	76.6	917.7	879	104
AIRE	SKIPTON BATHS	SD 978 518	120	NA	NA	NA	66.5	41.5	17.5	63.5	120.5	59.5	76.0	135.0	77.0	NA	950	NA
AIRE	SUTTON S.WORKS	SE 500 256	15	36.6	18.6	56.4	34.9	43.0	34.9	68.7	80.5	82.6	56.2	57.3	35.5	605.2	600	101
AIRE	THORNTON	SE 095 329	267	81.1	54.9	125.7	80.5	44.4	28.2	64.7	134.0	87.7	108.3	151.4	70.1	1031.0	1000	103
AIRE	THORNTON MOOR RES.	SE 050 335	373	93.5	62.7	119.1	101.3	47.6	27.5	77.9	140.6	87.3	111.3	162.3	99.3	1130.4	1200	94
AIRE	THORNTON NO.1	SE 095 329	271	81.6	57.9	125.8	82.7	45.4	27.5	64.1	135.6	88.7	109.7	153.2	71.8	1044.0	1050	99
AIRE	WATERSHEDDLES RES.	SD 968 380	340	112.3	88.9	175.4	132.8	53.0	31.0	86.0	152.0	105.0	122.7	188.9	133.5	1381.5	1378	100
AIRE	WEBBWOOD RES.	SE 272 372	100	42.7	20.8	62.1	38.2	70.8	22.7	47.2	89.2	73.0	70.4	87.0	47.2	671.3	738	91
AIRE	WILSDEN	SE 088 349	262	78.7	50.6	112.0	74.6	40.9	28.5	56.5	135.7	79.2	68.8	151.7	76.5	953.7	1000	95

Monthly rainfall (mm) during 1992 for stations in the N.R.A. Yorkshire Region network

Table 4

Catchment	Station	NGR	Alt (m)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year	LTA	%LTA
CALDER	DBWSBURY - MITCHELL LAITHES	SE 263 200	46	43.2	19.7	65.8	33.6	50.3	35.5	70.7	93.5	58.1	86.5	95.1	31.1	683.1	670	102
CALDER	EASTWOOD S.WORKS	SD 970 260	112	92.4	70.5	153.6	92.3	68.0	24.5	92.1	169.0	96.3	135.5	202.7	124.1	1321.0	1231	107
CALDER	GORPLE RES.	SD 945 312	313	96.9	104.5	153.8	131.5	78.4	22.7	108.1	175.5	120.3	147.7	214.5	158.1	1512.0	1416	107
CALDER	GORPLEY RES.	SD 910 231	274	89.9	102.7	174.0	122.5	71.4	28.9	100.7	186.5	128.6	169.3	242.8	154.3	1571.6	1518	104
CALDER	GREAT WALDEN EDGE NO.1	SD 996 156	346	94.6	88.7	146.0	106.6	63.5	43.1	96.0	192.1	111.9	155.3	224.2	142.0	1464.0	1373	107
CALDER	HECKMONDWIKE - THE BOTTOMS	SE 220 225	50	46.6	22.5	68.3	30.6	39.8	32.3	79.8	84.6	59.9	91.7	136.5	36.5	729.1	709	103
CALDER	JAW HILL W.WKS.	SE 293 233	98	47.2	17.2	54.9	31.9	47.5	33.3	64.5	85.5	63.3	86.0	90.2	37.1	658.6	660	100
CALDER	LODGE HOLE	SE 211 146	442	92.3	100.8	137.9	104.5	68.9	43.0	99.8	190.4	113.4	144.7	192.8	110.8	1399.3	1413	99
CALDER	MYTHOLMROYD S.WKS - REDACRE	SE 010 264	96	83.5	66.6	130.7	89.4	63.6	25.4	89.5	133.5	83.6	133.5	195.8	102.9	1198.0	1103	109
CALDER	NORMANTON S.WKS	SE 396 239	41	40.8	15.4	56.7	37.2	37.7	35.9	64.5	85.8	73.6	73.5	69.3	35.8	626.2	607	103
CALDER	OGDEN RES.NO.2	SE 065 306	307	90.3	75.8	133.3	97.0	47.4	31.0	70.4	148.7	89.2	142.6	176.1	86.8	1188.6	1090	109
CALDER	RINGSTONE RES.	SE 048 178	293	85.7	82.5	133.5	88.0	68.6	44.5	82.9	182.7	101.9	139.5	200.8	122.4	1333.0	1291	103
CALDER	RYBURN RES.	SE 024 187	194	87.7	77.2	150.0	93.5	70.3	37.4	79.0	159.0	95.3	146.5	201.7	123.5	1321.1	1200	110
CALDER	THORNES PARK	SE 321 196	32	40.1	17.3	58.3	28.5	40.2	41.9	68.0	94.4	69.6	76.9	82.1	34.6	651.9	650	100
CALDER	WAKEFIELD S.WKS.	SE 346 204	24	35.7	12.3	55.6	27.6	34.6	36.7	67.6	92.6	74.7	77.5	80.0	33.4	628.3	633	99
CALDER	WALSHAW DEAN LODGE	SD 964 336	317	146.2	93.0	168.5	120.4	83.4	31.9	105.8	161.4	109.3	129.4	201.2	128.4	1478.9	1362	109
CALDER	WITHENS CLOUGH	SD 981 233	305	84.2	79.5	143.2	105.4	74.3	44.6	91.6	185.1	96.1	140.9	204.8	114.5	1364.2	1390	98

COLNE	BLACKMOORFOOT NO.2	SE 099 131	243	74.7	70.4	116.6	84.6	67.6	39.2	78.1	158.1	101.4	111.6	163.1	98.2	1163.6	1150	101
COLNE	BOBUS NO.2	SE 033 100	366	95.1	111.5	163.5	139.8	60.2	28.6	86.3	208.4	124.7	157.4	214.8	127.0	1517.3	1380	110
COLNE	BOSHAW WHAMS	SE 154 058	283	66.7	55.9	115.6	70.8	63.5	48.8	81.6	147.0	95.9	110.5	149.8	107.0	1113.1	1170	95
COLNE	DIGLEY NO.3	SE 109 068	254	98.0	99.1	170.3	121.9	68.8	38.1	82.7	215.2	123.2	167.3	219.2	141.9	1545.7	1340	115
COLNE	HOLME MOSS	SE 096 040	520	122.5	107.8	225.3	159.2	71.9	45.8	115.4	226.0	136.6	179.2	237.5	153.5	1780.7	1800	99
COLNE	HOLME STYLES NO.3	SE 140 057	262	71.1	69.6	130.3	92.0	69.1	46.9	91.0	162.1	98.2	132.6	169.9	114.4	1247.2	1200	104
COLNE	NEILLY S.WKS.	SE 149 115	107	59.1	42.3	82.2	46.1	48.5	46.6	98.6	136.7	77.0	93.1	120.9	73.2	924.3	980	94
COLNE	RAMSDEN	SE 115 051	262	88.9	92.5	172.9	117.3	67.0	47.1	92.5	191.7	112.7	162.1	202.3	134.5	1481.7	1523	97
COLNE	WESSENDEN HEAD NO.2	SE 069 078	415	89.2	94.9	153.0	119.3	66.9	32.4	80.0	209.5	132.6	158.0	217.2	138.8	1491.8	1411	106

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Table 4

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DEARNE	BARNSLEY S.WKS.	SE 378 071	40	31.9	19.3	50.0	25.8	39.4	47.6	68.1	83.3	70.1	65.5	66.6	48.8	616.4	626	98
DEARNE	CANNON HALL	SE 273 084	113	40.4	22.0	63.2	29.6	54.3	62.6	67.7	102.0	66.8	75.3	87.5	55.5	726.9	754	96
DEARNE	DARFIELD S.WKS.	SE 420 038	25	34.0	14.1	48.0	27.7	37.7	53.2	75.2	87.6	74.2	67.3	66.4	43.9	629.3	624	101
DEARNE	EMLEY MOOR	SE 223 130	259	46.8	28.5	74.7	29.3	46.5	56.4	70.9	110.0	59.3	78.7	101.3	52.8	755.2	780	97
DEARNE	WORSBROUGH DALE S.WKS. ¹	SE 362 035	52	33.6	37.5	62.2	48.6	24.9	53.1	61.3	37.6	112.8	97.6	158.4	NA	NA	667	NA

DERWENT	BARMBY	SE 683 287	5	30.5	25.0	51.1	46.4	24.4	34.3	90.7	70.0	108.5	59.0	50.8	43.2	633.9	590	107
DERWENT	BIRDSALL HOUSE	SE 818 631	94	29.7	31.3	94.9	61.4	16.4	21.3	84.8	72.4	104.3	83.1	92.1	51.0	742.7	763	97
DERWENT	CAYTON BORNE	TA 047 828	30	22.5	26.8	71.8	69.7	7.6	34.2	79.6	59.5	89.0	76.1	69.0	56.7	662.5	640	104
DERWENT	CLOUGHTON	TA 010 937	46	25.9	34.4	58.6	54.0	13.0	29.0	75.5	39.0	74.5	93.5	67.0	61.0	625.4	745	84
DERWENT	CONEYSTHORPB	SE 711 712	51	26.8	36.0	72.3	56.7	18.1	28.3	76.1	69.1	100.6	73.2	85.7	46.7	689.6	675	102
DERWENT	ELVINGTON	SE 705 485	9	38.2	25.6	59.2	39.4	26.7	25.5	62.5	75.9	106.9	64.6	69.7	47.0	641.2	620	103
DERWENT	FILEY P.STN.	TA 114 807	37	15.1	28.3	NA	57.2	7.8	33.9	70.7	57.3	89.7	70.8	65.4	48.7	NA	638	NA
DERWENT	GANTON GOLF CLUB	SE 982 782	30	26.6	27.0	65.0	59.8	8.6	20.1	79.5	57.5	84.7	69.1	65.8	49.4	613.1	695	88
DERWENT	HUNMANBY	TA 100 777	50	27.4	29.0	73.6	60.4	10.0	51.1	108.0	75.6	105.9	83.7	71.7	67.1	763.5	720	106
DERWENT	HUTTON AMBO	SE 763 678	30	30.2	34.5	69.8	54.3	12.1	24.4	91.5	64.0	103.0	79.0	80.7	51.7	695.2	690	101
DERWENT	IRTON P.STN	TA 005 840	29	24.7	28.2	66.7	66.8	7.9	28.9	81.7	57.0	99.7	47.3	56.1	47.7	612.7	700	88
DERWENT	SCAMPSTON HALL	SE 864 756	31	26.0	31.3	77.9	56.5	18.9	23.7	81.2	56.7	99.4	69.2	66.0	51.4	658.2	662	99
DERWENT	SCARBOROUGH	TA 031 883	52	28.4	31.0	68.2	67.3	7.3	43.0	101.0	53.6	118.5	79.8	62.1	49.7	709.9	640	111
DERWENT	WARTER	SE 615 502	88	41.3	34.5	82.0	63.7	19.6	31.3	101.6	70.1	84.1	64.3	66.8	55.2	714.5	744	96
DERWENT	WYKEHAM FOREST	SE 935 882	210	35.3	43.7	90.4	103.3	8.0	35.7	106.8	70.1	NA	NA	NA	NA	830	NA	
DERWENT	WYKEHAM FOREST - NORTH MOOR	SE 947 863	152	34.8	45.3	76.9	110.1	11.1	33.1	97.9	65.7	110.5	93.1	77.1	46.8	802.4	764	105

DON - LOWER	GALE COMMON	SE 534 217	8	30.4	17.1	53.2	35.4	40.6	33.7	68.4	82.3	84.0	66.5	56.3	36.2	604.1	580	104
DON - LOWER	KIRK BRAMWITH	SE 618 114	7	32.6	13.4	50.6	31.5	48.7	40.0	86.9	68.2	95.9	60.4	57.8	37.2	623.2	575	108
DON - LOWER	SANDALL SWAGB WKS.NO.3	SE 601 062	12	28.2	8.0	43.2	28.2	36.0	57.9	83.2	75.2	101.9	54.2	54.4	35.8	606.2	580	105
DON - LOWER	SOUTH ELMSALL S.WKS.	SE 484 107	64	30.5	15.3	55.7	33.2	29.1	38.3	74.8	85.3	87.4	67.6	64.1	46.2	627.5	620	101
DON - LOWER	STAPLETON PARK S.WKS.	SE 516 192	11	34.1	17.6	56.7	41.5	38.7	35.8	71.8	86.8	89.8	69.6	64.5	37.5	644.4	590	109
DON - LOWER	THORNE S.WKS.	SE 677 145	6	29.8	13.8	51.8	31.6	39.0	46.5	82.9	80.7	86.3	57.7	58.2	40.2	618.5	590	105

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DON - UPPER	BLACK CLOUGH	SK 236 876	358	59.0	45.2	107.0	88.1	62.4	53.0	89.4	124.4	82.5	112.0	194.2	107.7	1124.9	1176	96
DON - UPPER	BLACKBURN MEADOWS S.WKS.	SK 398 918	43	30.8	15.1	43.2	26.3	31.7	29.3	65.4	87.5	53.7	51.7	50.5	43.4	528.6	650	81
DON - UPPER	BRADFIELD FILTERS	SK 262 917	168	60.0	43.6	113.4	79.2	50.9	61.4	84.9	117.4	76.8	95.7	155.0	88.4	1026.7	1029	100
DON - UPPER	FIRSBY RES	SE 495 958	58	27.3	10.9	51.3	21.7	53.5	48.3	71.0	67.1	83.4	34.8	64.1	39.5	572.9	658	87
DON - UPPER	INGBIRCHWORTH	SE 213 056	260	58.3	45.8	106.3	61.0	76.8	71.9	84.7	137.0	89.5	103.4	135.1	94.8	1064.6	980	109
DON - UPPER	LANGSETT RES.EAST	SE 217 004	213	43.9	45.1	113.8	69.9	70.4	49.6	88.3	125.1	81.2	101.0	141.9	100.3	1030.5	1050	98
DON - UPPER	MORE HALL RES.	SK 289 957	124	49.1	39.0	86.3	50.4	52.0	80.8	83.7	121.1	76.2	79.9	118.6	74.7	911.8	873	104
DON - UPPER	NORTON LEBS	SK 348 838	160	39.0	22.3	73.8	36.9	59.4	63.3	72.3	115.3	72.2	70.0	120.5	67.2	812.2	799	102
DON - UPPER	RBDMIRBS FILTERS	SK 268 857	305	56.2	43.5	110.4	68.7	57.0	68.6	86.1	131.3	76.4	100.1	175.0	97.5	1070.8	1090	98
DON - UPPER	WESTON PARK MUSBUM	SK 339 873	131	43.6	25.9	73.6	41.8	57.6	52.2	77.7	117.7	71.9	66.0	129.1	67.4	824.5	802	103
DON - UPPER	WHIRLOWDALB PARK	SK 319 829	178	40.9	31.5	90.5	44.0	57.5	60.6	78.9	115.9	65.9	86.9	138.2	69.5	880.3	890	99
DON - UPPER	WINSCAR RES.	SE 156 028	330	100.9	81.1	167.9	100.2	66.3	44.9	102.2	161.7	97.9	139.5	187.8	145.3	1395.7	1390	100
DON - UPPER	WOODLAND CLOUGH	SE 155 002	438	93.7	90.9	172.9	110.0	73.5	53.2	98.3	165.4	97.5	139.3	204.7	114.2	1413.6	1580	89

ESK	DANBY (MOORS CENTRB)	NZ 716 084	122	42.8	36.1	78.1	100.2	6.0	30.7	75.1	64.3	113.1	102.3	74.3	88.1	811.1	908	89
ESK	MULGRAVE CASTLB	NZ 845 126	125	23.4	34.6	63.6	49.4	9.6	44.8	66.9	53.5	137.5	85.2	58.8	60.9	688.2	738	93
ESK	RANDYMBRE RES.NO.2	NZ 810 022	174	40.7	53.0	90.7	80.9	12.1	32.2	91.0	78.0	127.1	104.0	99.3	77.8	886.8	870	102
ESK	RUSWARP	NZ 891 088	30	24.8	31.8	71.8	47.3	7.1	48.7	73.0	53.3	137.4	95.0	70.3	68.5	729.0	685	106
ESK	SCALING RES.NO.4	NZ 748 128	181	26.3	32.5	52.5	57.8	6.9	44.9	88.8	67.6	142.4	92.5	65.5	77.0	754.7	785	96
ESK	WEBSTERDALE	NZ 664 053	232	42.3	33.6	106.8	101.7	7.5	29.4	65.0	81.0	91.0	97.0	89.3	85.3	829.9	930	89

GYPSY RACE	BRIDLINGTON - MILL LANE P.S	TA 173 687	48	30.7	24.9	67.5	61.3	13.9	61.0	129.5	80.6	93.6	79.4	62.0	56.0	760.4	728	104
GYPSY RACE	HIGH MOWTHORPE	SE 886 685	175	34.2	32.7	85.1	63.2	11.6	25.2	121.1	73.6	103.4	77.4	74.0	65.9	767.4	771	100
GYPSY RACE	SLEDMORE HOUSE	SE 933 648	121	33.6	35.3	82.9	64.3	8.5	26.6	104.8	89.0	99.1	84.6	80.4	68.2	777.3	807	96
GYPSY RACE	ULROME	TA 159 565	7	33.5	22.6	56.5	42.1	10.1	33.0	94.7	72.5	81.5	57.0	63.2	48.0	614.7	650	95
GYPSY RACE	WOLD NEWTON	TA 047 728	46	31.1	27.9	70.9	69.6	9.2	42.5	103.1	75.7	105.0	94.2	80.0	60.4	769.6	750	103

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HULL	BEVERLEY - TICKTON DEPOT	TA 073 426	3	45.5	19.2	62.4	37.6	20.0	43.7	112.7	74.0	89.7	51.8	68.0	43.4	668.0	650	103
HULL	BRANDESBURTON HALL	TA 112 478	8	33.8	22.9	65.1	43.5	13.0	47.6	100.0	84.2	90.2	59.4	68.6	59.7	688.0	674	102
HULL	COTTINGHAM P.STN.	TA 048 342	6	36.0	28.5	62.1	51.8	16.4	48.2	113.4	85.4	97.2	64.0	71.9	52.1	727.0	660	110
HULL	DRIFFIELD SEWAGE WORKS	TA 030 569	14	29.1	27.6	58.2	43.9	5.3	25.4	99.3	72.5	120.8	67.9	64.1	48.4	662.5	670	99
HULL	GREAT KENDALE	TA 018 602	46	30.8	28.7	68.5	54.0	6.6	24.2	110.2	74.5	114.0	70.6	70.6	57.4	710.1	700	101
HULL	HARSWELL	SE 826 408	10	35.4	27.3	61.3	43.3	25.6	30.0	101.2	72.4	75.8	62.0	63.3	47.9	645.5	660	98
HULL	KRYINGHAM S.WKS.	TA 230 251	3	37.9	21.3	59.3	40.4	19.1	23.5	114.8	NA	NA	NA	NA	NA	NA	615	NA
HULL	LOWTHORPE	TA 074 611	21	29.9	27.0	0.0	65.2	52.5	7.2	Station terminated						NA	664	NA
HULL	NORTH CAVE	SE 893 323	15	34.5	30.4	63.6	43.1	21.9	29.2	103.5	95.1	91.7	58.9	62.7	47.7	684.3	640	107
HULL	SOUTH DALTON	SE 965 452	34	39.3	30.0	66.3	48.3	15.4	38.2	89.1	91.4	109.2	61.4	65.3	49.8	703.7	722	97
HULL	TOPHILL LOW	TA 072 483	2	33.2	27.4	60.3	50.3	13.1	43.1	93.4	64.4	94.7	67.7	68.3	57.9	673.8	621	109
HULL	WELTON - THE CRESCENT	SE 959 270	21	36.7	28.6	65.9	44.3	22.7	51.1	126.3	81.6	87.3	59.5	69.5	46.6	720.1	665	108
HULL	WETWANG(WOODLANDS)	SE 937 390	74	35.0	30.9	70.1	61.3	9.2	21.9	102.1	79.9	91.7	70.6	77.7	60.8	711.2	780	91
HULL	WITHERNSEA S.WKS.	TA 360 255	8	33.5	21.6	43.4	40.5	19.1	45.6	91.9	NA	NA	NA	NA	NA	620	NA	

NIDD	BACKSTEAM GILL	SE 587 723	373	83.7	119.2	228.3	170.0	63.0	12.0	79.0	198.0	138.0	113.0	235.0	112.0	1551.2	1590	98
NIDD	BIRSTWITH HALL	SE 241 583	99	58.9	56.1	103.6	70.3	43.7	23.1	62.4	101.8	103.6	77.0	126.0	75.1	901.6	919	98
NIDD	GOUTHWAITE RES.	SE 139 681	140	73.4	78.5	142.3	89.8	37.4	13.2	59.3	133.1	111.4	69.9	150.5	108.1	1066.9	1000	107
NIDD	HARLOW HILL RES.	SE 289 543	167	53.0	40.6	93.0	60.0	54.1	20.9	65.6	112.2	106.0	67.2	107.9	58.1	838.6	798	105
NIDD	HARROGATE - BILTON S.WKS.	SE 303 579	63	45.4	36.4	82.5	49.1	61.9	30.2	58.3	102.4	101.7	64.2	102.5	56.7	791.3	757	105
NIDD	SCAR HOUSE RES.	SE 066 766	331	75.1	97.8	156.5	125.6	47.0	46.0	82.2	177.2	127.5	81.8	196.9	179.7	1393.3	1314	106
NIDD	SCARGILL RES.	SE 235 533	206	61.7	46.1	99.0	78.1	39.2	24.8	66.7	117.4	100.9	82.8	124.0	85.3	926.0	890	104

OUSE	EASINGWOLD S.WKS.	SE 521 684	25	32.0	25.3	66.1	52.6	25.5	26.6	59.5	72.6	78.2	64.2	77.4	47.0	627.0	625	100
OUSE	GOOLE - EAST PARADE	SE 750 235	5	28.5	19.6	55.5	34.8	34.0	46.0	85.4	86.4	85.0	52.5	59.0	37.8	624.5	625	100
OUSE	HOOK	SE 761 251	4	29.1	22.4	55.5	33.9	46.6	46.7	86.1	97.0	82.6	52.6	62.5	39.9	654.9	610	107
OUSE	LONG MARSTON	SE 508 502	23	40.6	21.9	56.2	40.1	27.3	17.9	76.1	81.5	82.0	56.4	81.2	93.4	674.6	660	102
OUSE	RICCALL	SE 606 372	5	26.8	19.8	57.7	44.9	33.8	27.9	55.2	32.4	88.0	54.8	55.7	41.3	538.3	596	90
OUSE	SELBY S.WKS.	SE 634 313	5	29.5	18.1	51.4	42.6	42.6	24.0	78.8	68.0	93.9	58.3	59.1	31.5	597.8	600	100

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OUSE	SHERBURN IN BLMET S.WKS.	SE 528 333	12	31.5	21.8	55.5	38.5	47.6	31.6	64.9	74.4	87.0	59.0	56.5	31.3	599.6	620	97
OUSE	WALBUTTS S.WKS.	SE 647 617	25	34.2	32.0	72.1	61.6	20.9	27.5	76.1	66.2	91.3	65.5	81.8	44.0	673.2	620	109
OUSE	YORK - ACOMB LANDING	SE 582 527	9	35.6	21.2	57.8	45.2	21.0	26.4	65.4	74.1	81.2	60.9	72.6	35.8	597.2	610	98
OUSE	YORK - THE RETREAT	SE 615 508	18	40.3	22.6	64.4	45.5	22.2	25.2	71.3	71.2	87.6	68.6	71.0	40.5	630.4	610	103
ROOTHER	BOLSOVER CASTLE	SK 472 706	170	32.8	17.5	52.1	28.7	60.9	72.5	82.2	91.9	83.0	57.9	97.2	64.1	740.8	700	106
ROOTHER	CHIBSTERFIELD S.WKS.	SK 391 742	61	32.6	22.2	63.3	36.9	40.8	52.5	63.5	99.6	53.2	54.7	112.9	49.9	682.1	730	93
ROOTHER	UPPER LINACRE RES.	SK 338 726	159	36.1	30.5	75.8	48.1	52.4	65.0	70.5	128.6	59.1	85.7	132.4	77.2	861.4	851	101
ROOTHER	WINGERWORTH	SK 371 669	126	34.7	29.6	69.7	40.5	37.0	76.0	71.8	117.2	67.0	69.7	125.3	78.0	816.5	810	101
ROOTHER	WOODHOUSE MILL S.WKS.	SK 435 858	35	31.2	14.6	51.4	35.1	46.3	44.5	61.4	75.5	77.6	55.7	89.6	48.7	631.6	640	99
RYE	BILSDALE - SPOUT HOUSE	SE 574 936	139	37.8	39.4	106.8	96.6	14.5	20.7	60.9	87.6	80.6	87.8	94.1	87.8	814.6	900	91
RYE	CARLTON GRANGE FARM	SE 607 886	226	36.6	45.4	92.6	81.4	15.3	25.5	77.1	93.4	102.8	77.3	97.0	74.9	819.3	840	98
RYE	CHURCH HOUSES	SE 668 974	137	43.3	47.1	120.1	123.2	11.8	26.5	77.8	96.1	92.5	103.3	100.9	90.9	933.5	950	98
RYE	COLD MOOR	NZ 255020	323	41.2	38.5	98.5	108.1	16.5	41.8	78.3	86.3	107.7	86.1	92.8	82.0	877.8	935	94
RYE	CROPTON BLACKPARK LODGE	SE 752 909	115	37.0	37.5	94.5	98.0	10.5	15.0	59.0	80.0	99.0	83.0	70.5	61.5	745.5	840	89
RYE	EAST NESS P.STN	SE 695 787	43	26.3	31.3	64.0	52.4	11.8	30.9	71.1	60.5	110.9	64.7	80.0	46.8	650.7	682	95
RYE	FARNDALE NO.10	SE 643 998	175	46.1	50.6	126.1	127.5	14.8	28.5	81.9	102.3	97.3	118.6	105.1	98.1	996.9	1030	97
RYE	FARNDALE NO.13	SE 673 995	322	48.6	48.2	119.6	125.0	NA	28.9	87.4	99.4	108.2	119.9	103.0	96.7	NA	1045	NA
RYE	HAMBLETON - GREYSTONES	SE 528 830	271	36.4	35.2	101.2	75.2	18.0	30.8	85.9	92.6	106.1	79.3	96.2	69.1	826.0	805	103
RYE	HOVINGHAM HALL	SE 665 757	36	27.6	41.4	74.7	61.5	22.3	34.5	77.7	73.9	106.9	78.9	96.2	51.7	747.3	656	114
RYE	KELD HEAD	SE 777 839	24	27.0	34.3	78.8	69.6	9.1	14.8	78.2	61.2	94.1	67.2	72.6	42.3	649.2	685	95
RYE	RAVENSWICK	SE 706 873	82	27.6	38.6	83.6	72.9	7.1	4.2	67.0	81.9	114.0	70.7	78.9	43.3	689.8	736	94
RYE	SCARFHILL	SE 816 936	190	39.2	55.5	107.5	111.6	14.4	25.0	102.0	86.0	116.0	113.7	96.3	61.2	928.4	920	101

Monthly rainfall (mm) during 1992 for stations in the N.R.A. Yorkshire Region network

Table 4

Catchment	Station	NGR	Alt (m)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year	LTA	%LTA
SWALE	ARKENGARTHDALE	NY 999 030	294	78.1	79.4	150.1	104.4	34.9	58.0	82.6	128.0	101.0	83.0	170.4	134.9	1204.8	1115	108
SWALE	COXWOLD STORES	SE 534 771	70	31.6	31.9	78.4	64.5	15.7	29.5	58.0	71.2	88.6	69.6	73.9	52.0	664.9	700	95
SWALE	EAST COWTON - RABY COTTAGES	NZ 307 041	52	32.3	25.7	43.1	68.0	19.7	22.8	62.0	73.8	73.2	65.0	59.6	56.7	601.9	635	95
SWALE	GRINTON LODGE	SE 049 976	259	59.2	68.8	113.0	83.8	26.1	20.8	84.0	85.9	102.8	64.3	136.4	92.6	937.7	1019	92
SWALE	GUNNERSIDE	SD 949 982	240	72.0	91.0	NA	100.0	51.0	23.0	89.0	143.0	113.0	87.0	190.0	88.0	NA	1180	NA
SWALE	KBLD	NY 892 011	328	75.5	124.5	173.0	107.5	70.5	14.0	92.6	144.5	119.4	84.9	216.6	178.5	1401.5	1411	99
SWALE	LEEMING RAF	SE 305 890	32	32.3	22.1	50.8	50.5	29.6	20.7	64.6	80.1	82.0	55.5	59.9	51.1	599.2	611	98
SWALE	LITTLE CRAKEHALL	SE 238 903	60	34.2	25.3	57.4	54.1	23.0	21.5	71.0	87.3	85.7	54.2	66.4	64.4	644.5	710	91
SWALE	MOUNT ST.JOHN - FELIXKIRK	SE 474 848	165	34.1	28.6	89.9	78.2	16.5	28.0	52.5	82.5	81.0	65.2	72.6	56.4	685.5	709	97
SWALE	OSMOTHERLY	SE 458 968	147	35.2	30.3	78.2	107.2	17.2	40.0	76.0	90.5	82.0	73.5	78.3	67.8	776.2	764	102
SWALE	RAINTON S.WKS.	SE 373 751	30	36.4	19.3	55.9	42.2	25.9	10.9	49.2	90.8	82.7	51.0	72.2	47.9	584.4	620	94
SWALE	RICHMOND - GREEN HOWARD RD	NZ 172 016	189	39.5	34.4	81.5	66.4	26.0	23.4	NA	NA	NA	NA	NA	NA	NA	819	NA
SWALE	SNAPE CASTLE	SE 262 844	52	33.8	29.9	64.2	58.8	22.8	32.3	54.4	96.1	95.6	54.6	72.9	67.4	682.8	700	98
SWALE	TAN HILL INN	NY 897 067	525	66.0	91.0	124.0	112.0	47.0	10.0	NA	146.0	133.0	NA	183.0	164.0	NA	1600	NA
SWALE	THIRSK - SOUTH VILLA	SE 438 818	35	30.1	23.5	63.7	61.0	20.2	18.3	53.7	83.5	73.5	56.6	57.6	43.8	585.5	640	91
SWALE	THORNTON STEWARD	SE 184 886	130	41.5	31.2	72.0	54.1	19.3	19.5	60.3	92.5	85.8	49.9	70.9	81.9	678.9	760	89
SWALE	WHORTON MOOR	SE 480 988	235	39.0	30.0	88.5	99.5	15.0	43.0	73.5	110.5	98.0	88.5	80.0	79.0	844.5	797	106

URE	ASKRIGG SCHOOL	SD 944 909	212	65.2	69.9	132.8	92.9	52.6	12.0	79.4	118.6	82.0	62.1	142.4	128.5	1038.4	1100	94
URE	BURTERSETT	SD 891 893	291	85.8	125.5	193.6	131.5	67.3	23.0	100.0	172.3	139.2	86.5	224.4	177.7	1526.8	1350	113
URE	BURTON LEONARD RES.	SE 320 638	90	49.1	32.6	NA	87.1	452	25.7	61.7	96.1	98.5	59.3	96.0	52.2	NA	700	NA
URE	CARLTON NO.2	SE 067 847	265	52.8	75.8	148.7	83.4	65.3	41.5	63.1	115.5	105.6	59.3	129.7	126.6	1067.3	1050	102
URE	DROVERS INN	SE 213 723	176	52.1	55.4	101.6	75.1	47.0	27.2	64.4	112.3	122.9	65.0	116.8	83.8	923.6	966	96
URE	HAMBLETON HILL	SE 160 730	337	61.0	76.0	127.0	104.0	47.0	37.0	83.0	144.0	110.0	80.0	128.0	112.0	1109.0	1022	109
URE	LEIGHTON RES	SE 162 791	193	46.0	44.1	111.4	71.9	46.7	20.9	56.2	112.7	112.4	67.4	98.9	83.8	872.4	947	92
URE	LEYBURN S.WKS.	SE 121 893	116	36.4	21.6	53.9	28.0	5.5	16.5	45.8	106.7	68.7	32.1	73.8	84.7	573.7	770	75
URE	LONGRIDGE	SD 961 832	247	73.2	105.1	184.2	132.6	56.8	19.5	72.6	146.2	126.1	88.4	210.2	162.4	1377.3	1510	91
URE	LOW HOUSES	SE 138 814	211	50.5	59.3	117.0	86.0	49.0	36.0	64.0	127.0	105.0	67.4	112.1	110.5	983.8	984	100
URE	LOWER DUNSFORTH	SE 435 643	15	29.0	27.7	58.5	46.0	30.7	23.0	60.2	77.5	74.3	57.0	78.8	39.2	601.9	630	96
URE	LUMLEY MOOR RES.	SE 225 706	172	49.0	44.1	98.1	69.5	41.1	24.8	65.2	121.6	125.5	66.6	121.5	65.9	892.9	911	98

Monthly rainfall (mm) during 1992 for stations in the N.R.A. Yorkshire Region network

Table 4

Catchment	Station	NGR	Alt (m)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year	LTA	%LTA
URE	MOORLAND COTTAGE	SD 807 923	343	89.2	147.0	206.0	181.0	78.3	31.0	146.4	192.9	166.0	122.9	266.3	227.0	1854.0	1832	101
URE	RIPON S.WKS	SE 324 707	21	38.5	29.6	62.0	51.0	27.9	18.9	55.1	96.4	96.2	59.8	84.7	49.0	669.1	653	102
URE	ROUNDHILL RES.	SE 151 777	241	52.3	61.2	132.8	86.9	60.1	37.7	74.3	129.6	114.1	66.6	112.0	105.2	1032.8	975	106
URE	STALLING BUSK	SD 916 857	335	66.2	82.1	153.5	104.1	57.7	22.2	87.3	151.9	128.2	71.9	179.2	163.2	1267.5	1350	94
URE	TOP SNAIZEHOLME	SD 830 834	579	102.8	190.7	250.4	159.6	86.5	40.0	130.4	247.0	192.9	120.7	282.6	245.1	2048.7	1940	106
URE	TOP WIDDALB	SD 797 842	434	92.7	183.5	231.6	149.3	83.4	37.0	125.1	223.4	180.2	125.2	251.0	206.5	1888.9	1900	99
URE	TOW HILL	SD 829 866	296	80.9	134.0	206.1	145.2	71.1	28.0	101.2	209.0	162.5	114.6	240.1	200.3	1693.0	1700	100
WHARFE	ARNCLIFFE - OLD VICARAGE	SD 934 719	225	102.8	151.3	212.6	158.9	54.5	24.1	77.3	183.4	136.1	107.1	222.0	185.0	1615.1	1500	108
WHARFE	BARDEN RES.	SE 035 563	227	90.8	93.4	160.9	105.1	56.0	12.4	81.2	139.5	87.5	106.8	167.0	101.6	1202.2	1213	99
WHARFE	BBCKERMONDS	SD 874 804	804	93.0	164.1	223.8	156.6	73.1	36.3	92.8	189.6	151.0	111.4	244.0	183.5	1719.2	1750	98
WHARFE	BOLTON ABBEY	SE 071 539	112	75.7	62.7	123.7	79.8	50.4	11.9	52.4	119.1	73.3	84.6	145.7	66.8	946.1	952	99
WHARFE	BRAMHAM	SE 441 412	54	41.8	21.3	63.1	39.7	50.4	31.4	71.1	87.4	82.2	61.0	79.2	40.8	669.4	663	101
WHARFE	BRAMHAM PIT	SE 441 412	54	43.4	24.5	72.1	45.6	54.3	34.6	75.5	93.3	87.4	64.1	83.7	43.7	722.2	n/a	ERR
WHARFE	CAWOOD	SE 561 366	6	34.9	20.8	54.6	41.7	36.8	38.8	68.6	74.9	80.1	55.6	55.4	35.6	597.8	592	101
WHARFE	CHELKER RES.	SE 052 517	223	82.6	75.1	129.5	82.7	54.0	12.8	73.4	114.9	90.0	87.9	139.7	91.9	1034.5	880	118
WHARFE	BCCUP RES.NO.2	SE 309 422	115	51.4	28.4	74.7	48.0	35.6	29.8	63.3	99.6	94.1	76.7	93.0	49.6	744.2	780	95
WHARFE	FEWSTON RES.	SE 187 543	160	63.0	51.7	108.2	82.2	36.2	28.4	60.4	107.2	92.6	75.7	122.6	67.2	895.4	911	98
WHARFE	FOUNTAINS FELL	SD 869 709	657	NA	NA	205.0	209.8	84.5	27.6	118.5	231.5	NA	127.0	250.0	271.0	NA	1839	NA
WHARFE	GRASSINGTON S.WKS.	SE 007 629	160	82.9	81.6	158.6	112.0	38.2	48.4	60.4	138.5	99.8	74.1	165.4	102.4	1162.3	1200	97
WHARFE	GRIMWITH RES.	SE 626 640	290	89.4	92.2	170.3	114.8	41.2	27.8	67.2	162.7	124.7	79.0	181.7	137.4	1288.4	1140	113
WHARFE	JACK HOLE	SE 089 657	402	84.4	97.0	162.5	112.5	45.0	25.0	76.5	180.3	116.5	82.0	165.5	125.0	1272.2	1254	101
WHARFE	KETTLEWELL	SD 970 724	212	88.1	137.2	195.0	135.6	46.9	29.5	73.2	160.8	122.0	106.2	196.8	168.0	1459.3	1430	102
WHARFE	LINDLEY WOOD RES.	SE 217 486	95	59.4	40.2	98.0	76.7	38.2	21.5	53.8	94.4	82.4	78.2	119.9	69.4	832.1	826	101
WHARFE	MARCH GHYLL RES.	SE 126 510	215	70.4	60.0	129.5	71.0	51.4	27.2	58.9	108.9	80.1	79.1	135.8	78.5	950.8	891	107
WHARFE	OTLEY NEW S.WKS.	SE 223 462	52	54.1	35.3	87.8	62.9	30.6	24.8	50.9	94.6	69.9	73.6	118.0	64.2	766.7	780	98
WHARFE	SWINSTY RES.	SE 197 527	140	64.6	49.6	105.5	76.1	40.5	19.2	57.9	101.6	91.0	78.8	121.9	72.0	878.7	880	100
WHARFE	THRUSCROSS	SE 154 574	235	78.0	79.4	142.5	109.2	44.0	28.2	85.0	131.0	104.8	86.7	160.7	90.9	1140.4	1100	104
WHARFE	UPPER BARDEN RES.	SE 017 577	310	95.0	100.4	171.0	120.0	57.0	17.8	94.0	153.0	107.0	115.0	176.0	105.0	1311.2	1250	105

Climate Station Data

Data collected at these sites are used to calculate evapotranspiration, soil moisture deficits and effective rainfall.

Evapotranspiration is the basic result which is calculated, using a set of equations derived by Penman. Evapotranspiration is the flow of water vapour, by evaporation from land and water surfaces and transpiration from actively growing vegetation which has a freely available water supply.

Soil moisture deficit is a measure of the "dryness" of soils and is defined as the amount of water (mm) required to return the soil to field capacity. Field capacity is the state where soils are just free from gravity-draining water. The deficit is governed firstly by the relationship between rainfall and evaporation. It is further complicated by the vegetation type, as different plants have differing rooting depths and so do not draw equal amounts of water from the soil.

Effective rainfall is the rainfall which remains after a proportion of the water has been taken up by the soil and can be thought of as the rainfall which is free to recharge groundwater. The calculations are carried out in such a way to allow effective rainfall to occur even when there is a continuing soil moisture deficit. The calculations in the associated tables are based on land usage in the proportion : 50% short rooted vegetation, 30% long rooted vegetation, 20% riparian.

Sunshine hours for High Mowthorpe for 1992 have been estimated using readings from Bramham or MORECS. Wind run readings for Malham Tarn during November and December 1992 have been estimated using 09:00 daily observed wind speeds.

Table 5
Monthly potential evapotranspiration (mm) for 1992

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	1992
High Mowthorpe	0.0	5.2	19.6	41.2	76.1	87.2	80.8	66.5	33.5	11.0	2.4	0.0	423.5
Malham Tarn	0.0	8.1	27.6	45.1	89.8	95.6	72.8	66.2	35.9	14.2	11.9	0.9	468.1

Table 6
Month end soil moisture deficit (mm) for 1992

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
High Mowthorpe	13.9	5.6	0.0	0.4	52.0	88.3	56.0	50.3	2.9	0.5	0.0	0.0
Malham Tarn	0.0	0.0	0.0	0.0	40.9	85.1	74.0	0.7	0.0	0.0	0.0	0.0

Table 7
Monthly effective rainfall (mm) for 1992

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	1992
High Mowthorpe	23.9	19.8	61.6	27.3	1.1	4.5	22.6	11.0	26.5	65.5	71.2	65.9	400.9
Malham Tarn	102.6	95.5	180.0	105.8	18.3	5.4	14.3	31.8	108.3	106.8	191.7	155.0	1115.5