OVERSEAS DEVELOPMENT ADMINISTRATION
MINISTRY OF AGRICULTURE, GOVERNMENT OF SOMALIA

HYDROMETRY PROJECT - SOMALIA

Hydrometric Data Book
Jowhar Offstream Storage Reservoir 1980 - 1989

Sir M MacDonald & Partners Limited
Demeter House, Station Road, Cambridge CB1 2RS
United Kingdom

in association with

Institute of Hydrology
Wallingford, Oxon OX10 8BB
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FOREWORD

This Data Book was compiled during the Somalia Hydrometry Project which was supported by the British Overseas Development Administration between 1983 and 1990. The data may be copied or used for analysis provided that acknowledgement is given to:

The Director of Irrigation and Land Use
Ministry of Agriculture
Mogadishu
Somalia Democratic Republic

The Director would also appreciate copies of any published or unpublished papers or reports utilising the data.

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Schematic map of the reservoir system

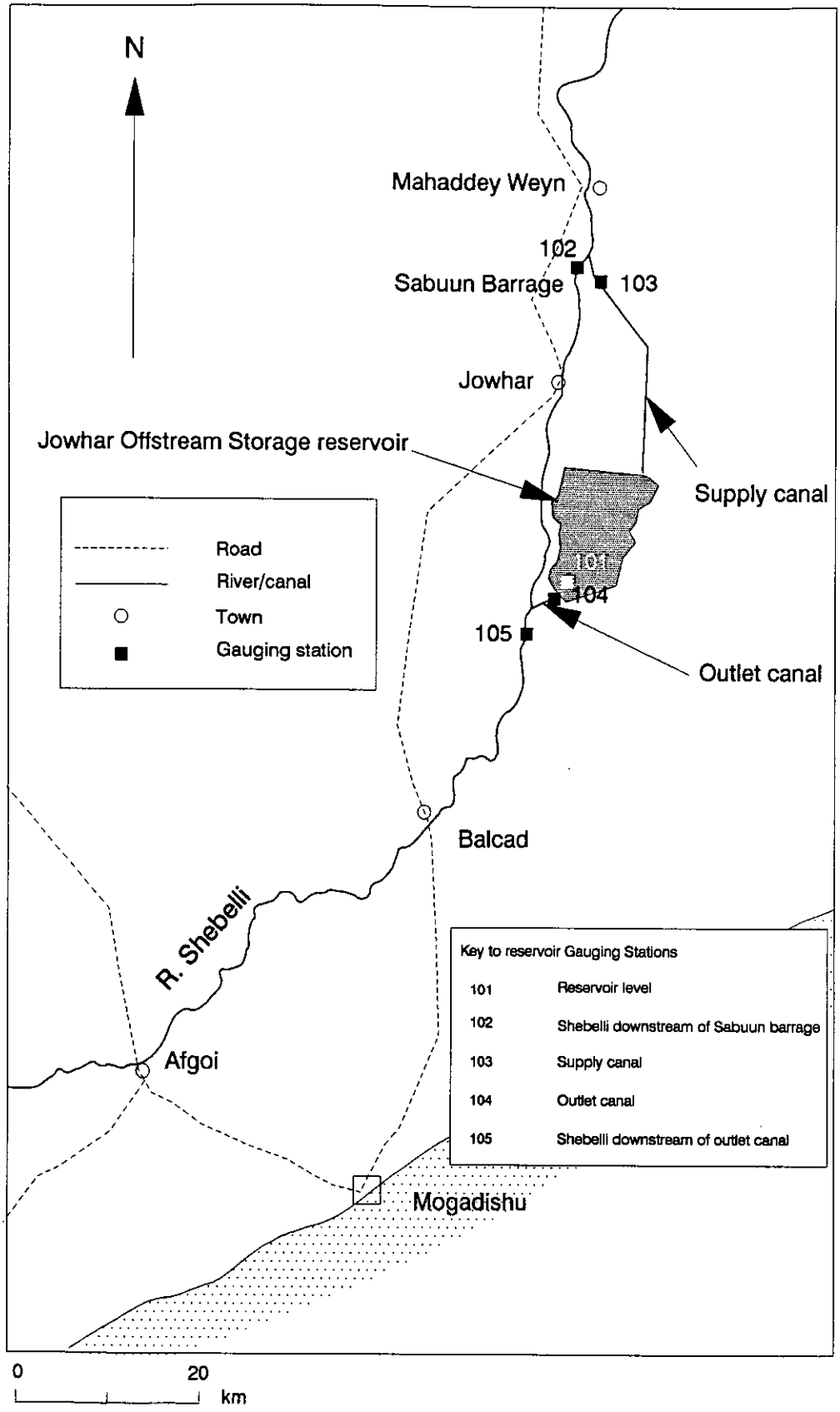


Figure 1

1. INTRODUCTION

This data book contains estimates of daily and monthly mean flows and volumes at the Jowhar Offstream Storage reservoir on the river Shebelli for the period 1980-1989. It supersedes previous publications by the Somalia Hydrometry Project which contained provisional data only, and should also be preferred to other published daily and monthly data which will have been based in part on unchecked original data. For this volume, all data has been checked, with errors corrected and missing values infilled where possible. This volume should be used in conjunction with the official Hydrometric Data Book for the rivers Jubba and Shebelli (ref. 1).

The data checking and infilling work was carried out as part of the Somalia Hydrometry Project which was instituted and supported by the Overseas Development Administration (ODA) as part of the British Government's programme of Technical Cooperation with Developing Countries. Staff from Sir M. MacDonald and Partners (now part of Mott MacDonald International Limited) and the Institute of Hydrology provided technical assistance and training to the Hydrology Section of the Department of Irrigation and Land Use (DILU) in the Ministry of Agriculture in Mogadishu. This support was on an intermittent basis (about 50 % of the time) from late 1983 to mid 1986 and full- time from 1988 to 1990. The continued support of the ODA and of the Director of Irrigation and Land Use is gratefully acknowledged.

The reservoir system

The Jowhar Offstream Storage reservoir is situated in the reach between Mahaddey Weyn and Afgoi on the river Shebelli. Figure 1 shows the layout of the reservoir and its supply and outlet canals. The reservoir was designed to collect surplus river flows during the Der season for subsequent release for irrigation during the following dry season (i.e. November to March approx.). The supply canal can also be used as a flood relief canal. Since the reservoir was commissioned in 1980, it has had a major impact on flows in the lower Shebelli.

The reservoir lies in a shallow depression to the east of the town of Jowhar and its outlet canal joins the Shebelli approximately 40 km downstream of the intake to the supply canal. The maximum capacity of the reservoir is 205 million cubic metres and the design capacities of the supply and outlet canals are 50 and 25 cumecs respectively. Due to siltation, the current capacities (in 1990) of these canals are estimated to be about 25 and 10 cumecs respectively. The maximum flow ever passed down the supply canal was about 35-40 cumecs (in 1981). Further information on the design of the system can be found in ref. 2.

The operating rules at the reservoir have been evolved over the past 10 years. From discussions with staff at the reservoir, it seems that the current rules are as follows. A few days after the onset of the Gu flood[+], the supply canal gates are opened slightly to admit a small flow which serves to wet and stabilise the bed of the canal. The time delay is required to allow the high sediment load and salinity levels associated with the start of the flood to subside. Once the bed is fully wetted, the flow is increased to its maximum value.

[+] There are two main flood seasons in Somalia; the Gu and the Der. The Gu generally starts between April and June and the Der starts between September and November.

The gates to the canal are closed either when the reservoir fills, or when the Gu flood ends. Note that no attempt is made to keep the reservoir 'topped up' once it has filled; this is for the benefit of users further downstream who require river levels to be maintained to feed gravity supply canals. After the end of the Gu flood, the reservoir level declines due to evaporation and seepage losses until, at the onset of the Der season, the supply canal gates are again opened. The aim now is for the reservoir to be full before the end of the Der season. Once the reservoir has filled (or the Der season ends) the canal gates are again closed and are not re-opened until the following Gu season. The outlet canal is brought into operation after the end of the Der season. Throughout most of the year, this canal (which has no outfall structure) is isolated from the river by an earth bank. This bank is removed as soon as the flow in the main channel of the Shebelli drops below about 40-45 cumecs. The canal gates are operated so as to maintain this flow in the Shebelli for as long as there is sufficient water available in the reservoir. The canal is left 'open' until warning of the next Gu flood is received, when it is then blocked off again by a new earthbank. Ref. 3 gives some further information on these operating rules.

Data checking and infilling

The reservoir was commissioned in 1980 and the first full year of operations was 1981. Since the start of operations, water levels have been monitored in the supply canal and the outlet canal, in the reservoir itself, and in the Shebelli just downstream of the Sabuun barrage and just downstream of the junction with the outlet canal. Figure 1 shows the locations of these stations. All measurements have been made manually from staff gauges. With the exception of the flow data for the outlet canal, the records are reasonably complete. Figure 2 shows the availability of data from each of the five stations. All records were obtained from the Ministry of Agriculture office at Jowhar.

During preparation of the data book, each of the reservoir records was carefully examined and, wherever possible, periods of missing or obviously erroneous data were infilled. The reservoir level record was almost complete and appeared to be accurate. For the canal flows, only limited checks could be performed since there was no information available on the periods in which the canal gates were operated or the gate settings used. The main check made was that the canal operations were consistent with the changes in level observed at the reservoir; for example, for the supply canal this involved checking that the reservoir was filling when flow was recorded in the canal.

A major problem was found with the data for the outlet canal for the period between the Gu and Der seasons. In most years, the record sheets stated that the canal was full, but there was no indication whether the canal was infact flowing. An inspection of the reservoir level records showed that, in most cases, the reservoir level was not dropping at a rate consistent with the canal being open, suggesting that the canal was probably blocked off and that there was no flow. The flows for these periods were therefore set to zero. For both canals, there were several short periods of missing data, which were mainly infilled by interpolation. For the outlet canal, little data was available after 1985 and no attempt was made to estimate the missing values. Also, it was not possible to make any checks on the accuracy of the rating equations used to convert levels to flows; for both canals, the ratings have probably changed considerably over the years due to sedimentation in the canals.

For the two stations on the Shebelli, it was possible to compare the records for consistency

with the flows observed at Mahaddey Weyn and Afgoi. Any periods of obviously incorrect data were deleted from the database. Short periods of missing data were infilled by interpolation but no attempt was made to infill longer periods. This was partly due to uncertainty in the rating equations for these stations, which were mostly established during 1979 and 1980 when the reservoir was being commissioned, and only covered a limited range of levels. It is worth noting, however, that the ratings do give flows of roughly the correct magnitude when compared to the flows at Mahaddey Weyn. Note that, for both stations, the record sheets for 1988 had not yet been located at the time the data book was prepared.

Guide to the data tables

The data tables present daily mean and monthly mean flows or volumes for each of the measuring stations. Flows are shown in units of cubic metres per second (sometimes written as cumecs or m^3/s) and volumes in million cubic metres (sometimes written as MCM). The source of the measurements is indicated by a data 'flag'. Values with no flag (e.g. 57.1) are called original data, meaning that the value was calculated directly from observed stage readings. Values with a flag 'e' (e.g. 57.1e) were estimated by interpolation or correlation with other stations. The flag 'm' indicates a missing value.

The daily data tables summarise the number of original, estimated and missing values in each year and, where necessary, give comments on the periods when data may be unreliable. In addition to daily mean values, the tables also show maximum, minimum and mean values for each month and year, and - for flow data - the total flows in each month and year. Maximum, minimum and total values are only presented if there are no missing values in the period. Monthly mean values, however, are given whenever there are 5 or fewer missing values in the month; this convention gives consistency with the monthly data tables (see below). In the tables, a hyphen '-' indicates that no value could be computed.

The monthly data tables are of a similar layout to the daily tables. Monthly mean values are calculated directly from the daily means. If one or more of the daily values is estimated, the monthly value is also flagged as estimated. If one or more of the daily values is missing, then the monthly value is calculated on the basis of the remaining daily values in the month. However, if there are more than 5 daily values missing in the month, no estimate is calculated. Annual mean values are presented if monthly mean values can be calculated for every month in the year. The tables also show the overall monthly mean, maximum and minimum values based on all the data from 1980 to 1989 inclusive.

Acknowledgements

The preparation of this data book would not have been possible without the work of staff at the Ministry of Agriculture's office in Jowhar, who have been responsible for monitoring levels in the reservoir system since it was commissioned in 1980.

References

1. Hydrometric Data Book - Jubba and Shebelli rivers 1951 - 1989. Somalia Hydrometry Project, May 1990

2. Jowhar Offstream Storage Project - Operation and Maintenance Manual. Sir M.MacDonald and Partners, April 1981

3. Flow forecasting models - Jubba and Shebelli rivers. Somalia Hydrometry Project report, December 1990

Jowhar Offstream Storage Reservoir: Percentages of original data available for each station

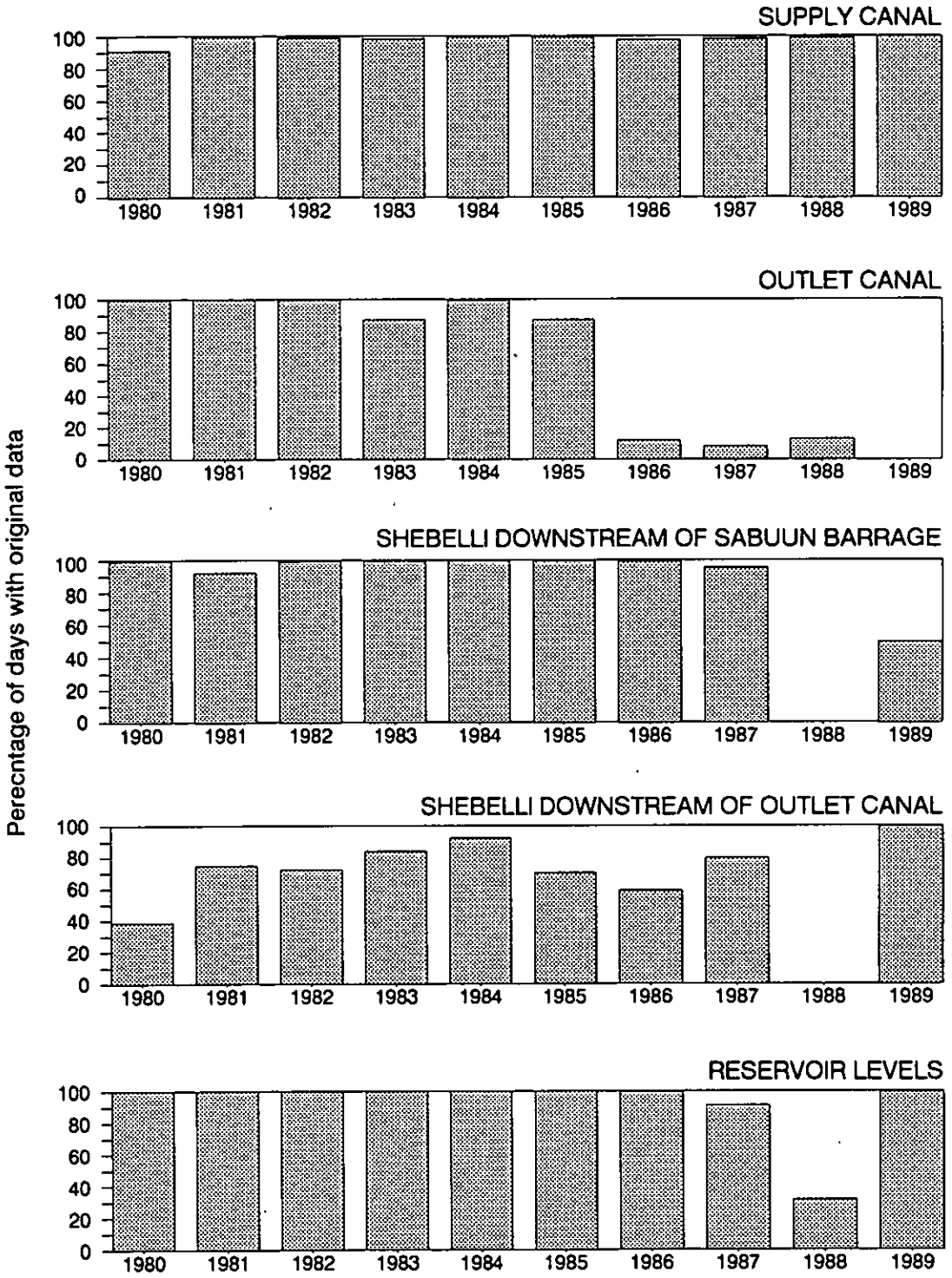


Figure 2

2. MONTHLY DATA TABLES

Supply canal

Monthly mean flows (cubic metres per second)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean
1980	0.0	0.0	0.0	0.0	6.7	0.3	0.0	2.7	12.3	0.0	0.0	0.0	1.8
1981	0.0	0.0	0.1	39.2	40.5	3.4	0.0	4.0	20.6	26.4	1.3	0.0	11.3
1982	0.0	0.0	0.0	1.1	15.6	13.5	0.0	5.8	14.3	12.9	26.0	0.6	7.5
1983	0.0	0.0	0.0	0.0	6.1	17.0	1.5	13.6	28.4	26.8	10.7	0.0	8.7
1984	0.0	0.0	0.0	0.0	0.0	0.0	4.5	10.9	14.5	16.2	1.4	0.0	4.0
1985	0.0	0.0	0.0	4.8	28.2	21.3	3.7	10.1	21.7	15.3	0.0	0.0	8.8
1986	0.0	0.0	0.0	1.6	12.3	15.2	16.1	16.4	16.6	7.6	0.0	0.0	7.2
1987	0.0	0.0	0.0	0.0	11.8	34.5	31.2	18.8	1.3	0.0	0.0	0.0	8.2
1988	0.0	0.0	0.0	0.1	8.4	0.0	6.3	20.2	21.4	21.6	14.8	1.0	7.8
1989	0.0	0.0	0.0	2.4	17.5	17.5	16.0	13.7	14.2	13.0	3.6	0.0	8.2
Mean	0.0	0.0	0.0	4.9	14.7	12.3	7.9	11.6	16.5	14.0	5.8	0.2	
Maximum	0.0	0.0	0.1	39.2	40.5	34.5	31.2	20.2	28.4	26.8	26.0	1.0	
Minimum	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	1.3	0.0	0.0	0.0	

Comments : Flag m - more than 5 daily values missing; Flag e - one or more daily values estimated or missing

Outlet canal

Monthly mean flows (cubic metres per second)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean
1980	0.0	0.0	0.0	0.0	1.4	9.0	0.0	0.0	2.4	5.2	0.0	0.0	1.5
1981	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.4	8.1	1.2
1982	10.8	10.0	8.9	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7
1983	8.1	21.9	19.3	11.9	0.0	0.0	0.0	0.0	0.0	0.0	9.7	22.4	7.7
1984	19.9	17.9	19.8	16.6	8.7	0.0	0.0	0.0	0.0	0.0	13.9	8.6	8.7
1985	13.6	12.8	9.6	1.5	0.0	0.0	0.0	0.0	0.0	0.0	m	m	-
1986	m	m	21.7	m	m	m	m	m	m	m	m	m	-
1987	m	m	20.2	m	m	m	m	m	m	m	m	m	-
1988	23.4	m	m	m	m	m	m	m	m	m	m	m	-
1989	m	m	m	m	m	m	m	m	m	m	m	m	-
Mean	10.8	10.4	12.4	5.6	1.7	1.5	0.0	0.0	0.4	0.9	6.0	7.8	
Maximum	23.4	21.9	21.7	16.6	8.7	9.0	0.0	0.0	2.4	5.2	13.9	22.4	
Minimum	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

Comments : Flag m - more than 5 daily values missing; Flag e - one or more daily values estimated or missing
Little data available from 1985

Shebelli downstream of Sabuun barrage

Monthly mean flows (cubic metres per second)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean
1980	8.3	5.1	3.3	6.8	86.1	17.0	15.5	71.6	74.5	52.3	16.0	3.7	30.2
1981	1.5	0.5	37.8	124.7	128.1	68.0	23.2	94.6	141.7	143.5	67.1	19.0	71.1
1982	11.6	9.0	8.6	55.6	120.3	102.1	46.4	103.4	126.2	122.8	154.6	102.1	80.5
1983	47.5	24.4	17.3	28.5	114.7	150.2	79.4	148.4	152.5	147.1	141.8	63.8	93.3
1984	27.0	17.6	11.8	10.1	37.4	68.7	55.2	110.5	111.1	99.3	22.9	11.2	48.7
1985	7.8	5.3	3.9	72.0	156.3	105.2	45.7	125.8	104.3	73.9	28.3	11.1	61.9
1986	6.1	4.4	4.3	46.1	121.2	109.7	93.8	114.7	107.5	86.0	34.7	7.5	61.7
1987	4.3	3.5	2.8	76.4	118.8	148.0	60.4	28.1	62.9	90.3	62.1	m	-
1988	m	m	m	m	m	m	m	m	m	m	m	m	-
1989	14.2	12.2	13.4	108.7	142.5	63.8	m	m	m	m	m	m	-
Mean	14.3	9.1	11.5	58.8	113.9	92.5	52.4	99.6	110.1	101.9	65.9	31.2	
Maximum	47.5	24.4	37.8	124.7	156.3	150.2	93.8	148.4	152.5	147.1	154.6	102.1	
Minimum	1.5	0.5	2.8	6.8	37.4	17.0	15.5	28.1	62.9	52.3	16.0	3.7	

Comments : Flag m - more than 5 daily values missing; Flag e - one or more daily values estimated or missing

Shebelli downstream of outlet canal

Monthly mean flows (cubic metres per second)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean
1980	m	m	m	m	m	13.4	m	m	63.7	45.1	m	m	-
1981	m	m	m	99.9	110.3	63.1	34.5	82.2	109.2	109.0	60.2	19.4	-
1982	15.5	14.9	15.0	48.9	105.1	89.7	44.0	89.8	106.6	97.7	118.1	89.9	69.8
1983	52.2	38.4	29.7	30.8	100.5	m	77.3	m	m	119.9	115.9	62.3	-
1984	33.1	25.9	22.7	17.0	38.4	67.1	53.5	101.2	95.7	90.7	27.7	15.8	49.2
1985	15.1	15.1	15.1	57.7	90.3	82.1	56.8	113.6	105.2	79.4	39.3	17.2	57.4
1986	15.0	15.1	15.1	39.5e	m	m	99.6	m	109.1e	94.5	60.7	23.0	-
1987	18.4	14.6	11.5	68.7	m	m	60.2	38.5	68.4	103.0	79.7	m	-
1988	m	m	m	m	m	m	m	m	m	m	m	m	-
1989	22.1	21.8	21.5	100.8	125.1	68.2	29.4	54.0	91.7	111.9	74.9	54.0	64.8
Mean	24.5	20.8	18.6	57.9	94.9	63.9	56.9	79.9	93.7	94.6	72.0	40.2	
Maximum	52.2	38.4	29.7	100.8	125.1	89.7	99.6	113.6	109.2	119.9	118.1	89.9	
Minimum	15.0	14.6	11.5	17.0	38.4	13.4	29.4	38.5	63.7	45.1	27.7	15.8	

Comments : Flag m - more than 5 daily values missing; Flag e - one or more daily values estimated or missing

Reservoir storage

Monthly mean volumes (million cubic metres)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean
1980	0.0	0.0	0.0	0.0	1.2	6.3	0.0	0.0	12.7	11.5	3.7	0.1	2.9
1981	0.0	0.0	0.0	28.2	111.6	141.1	96.8	56.8	78.5	130.0	156.1	136.2	78.3
1982	104.2	72.0	39.7	10.6	24.1	69.7	67.9	58.8	80.4	104.8	160.2	198.5	82.7
1983	175.2	128.1	78.5	37.5	29.2	45.4	70.3	65.7	107.0	152.9	189.2	173.4	104.3
1984	143.5	110.9	68.4	25.2	5.4	0.6	0.4	6.2	21.9	45.1	65.8	56.3	45.6
1985	34.2	13.1	3.6	3.9	38.4	84.2	86.5	80.9	101.2	122.7	125.2	111.6	67.4
1986	89.3	58.1	31.5	21.1	40.9	78.8	106.8	136.3	160.6	176.7	163.2	144.8	101.0
1987	99.0	57.9	27.0	11.3	15.2	79.6	155.6	192.5	188.3	169.7	170.4	149.5	110.1
1988	104.2	45.5	18.7	9.7	13.1	15.8	13.0	28.7	76.8	128.1	171.3	182.1	67.4
1989	158.9	127.2	94.1	73.1	90.3	118.7	141.5	158.7	171.5	189.4	208.8	205.9	145.0
Mean	90.9	61.3	36.1	22.0	37.0	64.0	73.9	78.5	99.9	123.1	141.4	135.8	
Maximum	175.2	128.1	94.1	73.1	111.6	141.1	155.6	192.5	188.3	189.4	208.8	205.9	
Minimum	0.0	0.0	0.0	0.0	1.2	0.6	0.0	0.0	12.7	11.5	3.7	0.1	

Comments : Flag m - more than 5 daily values missing; Flag e - one or more daily values estimated or missing

3. DAILY DATA TABLES

SUPPLY CANAL

1980 - 1989

Supply canal 1980

Daily mean flows (cubic metres per second)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	0.0	0.0	0.0	0.0	4.8e	0.0	0.0	16.8	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	1.8e	0.0	0.0	18.0e	0.0	0.0	0.0
3	0.0	0.0	0.0	0.0	0.0	0.7e	0.0	0.0	19.3	0.0	0.0	0.0
4	0.0	0.0	0.0	0.0	0.0	0.3e	0.0	0.0	21.6	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.6e	0.0	0.0	0.0
6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.6e	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.6	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.6	0.0	0.0	0.0
9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.2e	0.0	0.0	0.0
10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.8	0.0	0.0	0.0
11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.6e	0.0	0.0	0.0
12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.4e	0.0	0.0	0.0
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.2e	0.0	0.0	0.0
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.8	0.0	0.0	0.0
16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.9e	0.0	0.0	0.0
17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.1	0.0	0.0	0.0
18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.9e	0.0	0.0	0.0
19	0.0	0.0	0.0	0.0	0.2e	0.0	0.0	0.0	9.7e	0.0	0.0	0.0
20	0.0	0.0	0.0	0.0	0.5e	0.0	0.0	0.0	6.5e	0.0	0.0	0.0
21	0.0	0.0	0.0	0.0	1.0e	0.0	0.0	0.0	3.3e	0.0	0.0	0.0
22	0.0	0.0	0.0	0.0	2.2e	0.0	0.0	3.9e	0.0	0.0	0.0	0.0
23	0.0	0.0	0.0	0.0	4.6e	0.0	0.0	7.9	0.0	0.0	0.0	0.0
24	0.0	0.0	0.0	0.0	10.0e	0.0	0.0	8.9e	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	15.3e	0.0	0.0	10.1	0.0	0.0	0.0	0.0
26	0.0	0.0	0.0	0.0	23.5e	0.0	0.0	9.2e	0.0	0.0	0.0	0.0
27	0.0	0.0	0.0	0.0	36.0	0.0	0.0	8.4e	0.0	0.0	0.0	0.0
28	0.0	0.0	0.0	0.0	35.0e	0.0	0.0	7.6e	0.0	0.0	0.0	0.0
29	0.0	0.0	0.0	0.0	34.0e	0.0	0.0	6.9e	0.0	0.0	0.0	0.0
30	0.0		0.0	0.0	33.0e	0.0	0.0	6.3	0.0	0.0	0.0	0.0
31	0.0		0.0		12.6e		0.0	14.5		0.0		0.0
Mean	0.0	0.0	0.0	0.0	6.7	0.3	0.0	2.7	12.3	0.0	0.0	0.0
Maximum	0.0	0.0	0.0	0.0	36.0	4.8	0.0	14.5	21.6	0.0	0.0	0.0
Minimum	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	0	0	0	0	18	1	0	7	32	0	0	0

(Total flows in million cubic metres per month)

Annual statistics

Mean	:	1.8	(cubic metres per second)
Maximum	:	36.0	(cubic metres per second)
Minimum	:	0.0	(cubic metres per second)
Total	:	58	(million cubic metres)

Data availability

Original values	:	332
Estimated values (Flag e)	:	34
Missing values (Flag m)	:	0

Comments : First year of operations; reservoir only partially filled

Supply canal

1981

Daily mean flows (cubic metres per second)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	0.0	0.0	27.6	42.4	32.0	0.0	0.0	10.4	24.9	17.2	0.0
2	0.0	0.0	0.0	33.5	42.9	28.6	0.0	0.0	10.4	24.8	10.7	0.0
3	0.0	0.0	0.0	35.0	43.0	23.3	0.0	0.0	12.0	24.8	6.9	0.0
4	0.0	0.0	0.0	35.8	43.0	15.9	0.0	0.0	14.4	24.8	2.9	0.0
5	0.0	0.0	0.0	38.0	42.5	1.7	0.0	0.0	14.5	25.8	0.0	0.0
6	0.0	0.0	0.0	39.1	42.4	0.0	0.0	0.0	14.7	26.5	0.0	0.0
7	0.0	0.0	0.0	39.1	42.4	0.0	0.0	0.0	16.3	26.5	0.0	0.0
8	0.0	0.0	0.0	39.1	42.4	0.0	0.0	0.0	17.8	26.5	0.0	0.0
9	0.0	0.0	0.0	39.1	42.4	0.0	0.0	0.0	17.8	26.5	0.0	0.0
10	0.0	0.0	0.0	39.1	42.4	0.0	0.0	0.0	17.8	26.5	0.0	0.0
11	0.0	0.0	0.0	39.1	42.4	0.0	0.0	0.0	19.0	26.5	0.0	0.0
12	0.0	0.0	0.0	39.1	42.4	0.0	0.0	0.0	20.0	26.5	0.0	0.0
13	0.0	0.0	0.0	39.1	42.4	0.0	0.0	0.0	21.0	26.5	0.0	0.0
14	0.0	0.0	0.0	39.1	42.4	0.0	0.0	0.0	21.6	26.5	0.0	0.0
15	0.0	0.0	0.0	39.1	42.4	0.0	0.0	0.0	21.6	26.9	0.0	0.0
16	0.0	0.0	0.0	39.1	42.4	0.0	0.0	0.0	21.9	27.0	0.0	0.0
17	0.0	0.0	0.0	39.1	42.4	0.0	0.0	0.0	22.4	27.0	0.0	0.0
18	0.0	0.0	0.0	39.1	42.4	0.0	0.0	0.0	24.2	27.0	0.0	0.0
19	0.0	0.0	0.0	39.1	42.4	0.0	0.0	0.9e	25.0	27.0	0.0	0.0
20	0.0	0.0	0.0	39.6	41.9	0.0	0.0	8.6	24.8	27.0	0.0	0.0
21	0.0	0.0	0.0	40.2	41.9	0.0	0.0	10.5	24.6	27.0	0.0	0.0
22	0.0	0.0	0.0	40.2	41.9	0.0	0.0	10.4	24.8	27.0	0.0	0.0
23	0.0	0.0	0.0	41.9	41.5	0.0	0.0	10.4	24.8	27.0	0.0	0.0
24	0.0	0.0	0.0	42.4	41.8	0.0	0.0	10.2	25.1	27.0	0.0	0.0
25	0.0	0.0	0.0	42.4	37.2	0.0	0.0	10.3	25.1	27.0	0.0	0.0
26	0.0	0.0	0.0	42.4	34.0	0.0	0.0	10.3	24.9	27.0	0.0	0.0
27	0.0	0.0	0.0	42.4	33.8	0.0	0.0	10.3	24.8	27.0	0.0	0.0
28	0.0	0.0	0.0	42.4	33.5	0.0	0.0	10.4	25.0	27.0	0.0	0.0
29	0.0		0.0	42.4	33.5	0.0	0.0	10.4	25.2	27.0	0.0	0.0
30	0.0		0.0	42.4	33.1	0.0	0.0	10.4	25.0	26.2	0.0	0.0
31	0.0		1.7e		32.7		0.0	10.4		23.6		0.0
Mean	0.0	0.0	0.1	39.2	40.5	3.4	0.0	4.0	20.6	26.4	1.3	0.0
Maximum	0.0	0.0	1.7	42.4	43.0	32.0	0.0	10.5	25.2	27.0	17.2	0.0
Minimum	0.0	0.0	0.0	27.6	32.7	0.0	0.0	0.0	10.4	23.6	0.0	0.0
Total	0	0	0	102	108	9	0	11	53	71	3	0

(Total flows in million cubic metres per month)

Annual statistics

Mean	:	11.3	(cubic metres per second)
Maximum	:	43.0	(cubic metres per second)
Minimum	:	0.0	(cubic metres per second)
Total	:	357	(million cubic metres)

Data availability

Original values	:	363
Estimated values (Flag e)	:	2
Missing values (Flag m)	:	0

Comments : Canal operated in Gu and Der seasons

Supply canal 1982

Daily mean flows (cubic metres per second)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	0.0	0.0	0.0	8.1	25.9	0.0	0.0	13.3	9.1	24.8	10.1
2	0.0	0.0	0.0	0.0	9.8	26.5	0.0	0.0	13.9	8.8	24.8	6.0
3	0.0	0.0	0.0	0.0	13.5	26.5	0.0	0.0	14.5	8.3	24.8	1.1e
4	0.0	0.0	0.0	0.0	14.5	26.5	0.0	0.0	15.4	8.3	24.8	0.0
5	0.0	0.0	0.0	0.0	14.5	26.9	0.0	0.0	16.2	8.3	24.8	0.0
6	0.0	0.0	0.0	0.0	14.5	29.2	0.0	0.0	16.1	8.3	24.8	0.0
7	0.0	0.0	0.0	0.0	14.3	29.2	0.0	0.0	16.1	8.3	24.8	0.0
8	0.0	0.0	0.0	0.0	14.1	29.2	0.0	0.0	16.4	8.3	26.4	0.0
9	0.0	0.0	0.0	0.0	13.9	29.2	0.0	0.0	17.1	8.5	27.1	0.0
10	0.0	0.0	0.0	0.0	13.8	28.8	0.0	0.0	17.5	8.8	27.0	0.0
11	0.0	0.0	0.0	0.0	14.0	28.6	0.0	0.0	17.5	9.3	27.0	0.0
12	0.0	0.0	0.0	0.0	14.1	28.3	0.0	0.0	17.5	8.9	27.0	0.0
13	0.0	0.0	0.0	0.0	14.1	25.0	0.0	1.2e	17.5	8.8	27.0	0.0
14	0.0	0.0	0.0	0.0	13.8	21.3	0.0	7.0	17.5	8.8	27.0	0.0
15	0.0	0.0	0.0	0.0	13.8	16.3	0.0	7.0	17.5	8.8	27.0	0.0
16	0.0	0.0	0.0	0.0	13.4	6.3	0.0	9.2	17.5	8.8	27.0	0.0
17	0.0	0.0	0.0	0.0	13.2	1.1e	0.0	10.4	17.5	8.8	27.0	0.0
18	0.0	0.0	0.0	0.0	13.8	0.0	0.0	10.4	17.5	9.8	27.0	0.0
19	0.0	0.0	0.0	0.0	14.1	0.0	0.0	10.1	17.2	13.3	27.0	0.0
20	0.0	0.0	0.0	0.0	14.3	0.0	0.0	9.6	16.8	17.0	27.0	0.0
21	0.0	0.0	0.0	0.0	14.5	0.0	0.0	9.1	12.4	17.8	27.0	0.0
22	0.0	0.0	0.0	0.0	15.8	0.0	0.0	8.8	10.4	18.2	27.0	0.0
23	0.0	0.0	0.0	0.0	17.3	0.0	0.0	9.1	10.3	18.6	27.0	0.0
24	0.0	0.0	0.0	1.2e	19.1	0.0	0.0	10.1	9.8	18.6	27.0	0.0
25	0.0	0.0	0.0	7.4	19.3	0.0	0.0	10.4	10.0	18.6	27.0	0.0
26	0.0	0.0	0.0	5.0	19.6	0.0	0.0	10.4	9.8	18.6	26.6	0.0
27	0.0	0.0	0.0	4.8	20.2	0.0	0.0	10.4	9.8	18.6	26.6	0.0
28	0.0	0.0	0.0	4.8	20.6	0.0	0.0	10.4	9.6	19.2	27.0	0.0
29	0.0		0.0	4.8	21.0	0.0	0.0	11.7	8.9	19.0	23.3	0.0
30	0.0		0.0	6.3	23.8	0.0	0.0	11.7	9.0	21.3	17.3	0.0
31	0.0		0.0		24.5		0.0	12.9		24.1		0.0
Mean	0.0	0.0	0.0	1.1	15.6	13.5	0.0	5.8	14.3	12.9	26.0	0.6
Maximum	0.0	0.0	0.0	7.4	24.5	29.2	0.0	12.9	17.5	24.1	27.1	10.1
Minimum	0.0	0.0	0.0	0.0	8.1	0.0	0.0	0.0	8.9	8.3	17.3	0.0
Total	0	0	0	3	42	35	0	16	37	35	67	1

(Total flows in million cubic metres per month)

Annual statistics

Mean	:	7.5	(cubic metres per second)
Maximum	:	29.2	(cubic metres per second)
Minimum	:	0.0	(cubic metres per second)
Total	:	236	(million cubic metres)

Data availability

Original values	:	361
Estimated values (Flag e)	:	4
Missing values (Flag m)	:	0

Comments : Canal operated in Gu and Der seasons

Supply canal 1983

Daily mean flows (cubic metres per second)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	0.0	0.0	0.0	0.0	2.5	7.1	0.0	28.8	28.4	24.0	0.0
2	0.0	0.0	0.0	0.0	1.0e	2.5	3.2	0.0	28.7	28.3	24.0	0.0
3	0.0	0.0	0.0	0.0	5.1	2.5	3.0	0.0	28.3	28.3	24.0	0.0
4	0.0	0.0	0.0	0.0	6.2	3.4	2.8	0.0	28.3	28.3	24.0	0.0
5	0.0	0.0	0.0	0.0	7.0	4.6	2.5	0.0	28.3	28.3	24.0	0.0
6	0.0	0.0	0.0	0.0	7.0	4.6	2.5	0.0	28.3	28.3	24.0	0.0
7	0.0	0.0	0.0	0.0	7.0	5.1	2.5	0.0	28.3	28.3	24.0	0.0
8	0.0	0.0	0.0	0.0	7.0	8.4	2.5	0.9e	28.3	28.3	24.0	0.0
9	0.0	0.0	0.0	0.0	7.0	10.3	2.4	4.4	28.3	28.3	24.0	0.0
10	0.0	0.0	0.0	0.0	7.0	13.0	1.8	6.1	28.3	28.3	24.0	0.0
11	0.0	0.0	0.0	0.0	8.3	16.3	1.8	8.2	28.3	28.3	24.0	0.0
12	0.0	0.0	0.0	0.0	9.6	17.1	1.9	9.5	28.3	28.3	24.0	0.0
13	0.0	0.0	0.0	0.0	9.6	20.2	1.9	9.6	28.3	28.3	14.5	0.0
14	0.0	0.0	0.0	0.0	9.6	21.6	1.9	11.3	28.3	28.3	6.5	0.0
15	0.0	0.0	0.0	0.0	9.5	21.6	1.8	13.3	28.3	28.3	5.6	0.0
16	0.0	0.0	0.0	0.0	8.7	21.6	1.7	14.1	28.3	28.3	4.8	0.0
17	0.0	0.0	0.0	0.0	8.4	21.6	1.6	15.1	28.3	28.3	1.0e	0.0
18	0.0	0.0	0.0	0.0	8.3	22.3	1.4	15.1	28.3	28.3	0.0	0.0
19	0.0	0.0	0.0	0.0	8.3	24.6	1.3	16.5	28.3	26.9e	0.0	0.0
20	0.0	0.0	0.0	0.0	7.9	26.1	1.1	17.8	28.3	25.6e	0.0	0.0
21	0.0	0.0	0.0	0.0	6.5	26.1	0.3e	20.7	28.3	24.3	0.0	0.0
22	0.0	0.0	0.0	0.0	6.1	26.1	0.0	22.4	28.3	24.4	0.0	0.0
23	0.0	0.0	0.0	0.0	6.1	26.1	0.0	22.5	28.3	24.4	0.0	0.0
24	0.0	0.0	0.0	0.0	6.1	26.1	0.0	23.3	28.3	24.4	0.0	0.0
25	0.0	0.0	0.0	0.0	4.9	26.1	0.0	25.5	28.3	24.4	0.0	0.0
26	0.0	0.0	0.0	0.0	3.3	26.1	0.0	27.1	28.3	24.4	0.0	0.0
27	0.0	0.0	0.0	0.0	3.2	26.1	0.0	27.0	28.3	24.4	0.0	0.0
28	0.0	0.0	0.0	0.0	2.3	24.3	0.0	26.6	28.3	24.4	0.0	0.0
29	0.0		0.0	0.0	2.3	18.8	0.0	27.9	28.5	24.4	0.0	0.0
30	0.0		0.0	0.0	2.3	15.1	0.0	28.8	28.4	24.4	0.0	0.0
31	0.0		0.0		2.4		0.0	28.8		24.4		0.0
Mean	0.0	0.0	0.0	0.0	6.1	17.0	1.5	13.6	28.4	26.8	10.7	0.0
Maximum	0.0	0.0	0.0	0.0	9.6	26.1	7.1	28.8	28.8	28.4	24.0	0.0
Minimum	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	28.3	24.3	0.0	0.0
Total	0	0	0	0	16	44	4	36	74	72	28	0

(Total flows in million cubic metres per month)

Annual statistics

Mean : 8.7 (cubic metres per second)
Maximum : 28.8 (cubic metres per second)
Minimum : 0.0 (cubic metres per second)
Total : 274 (million cubic metres)

Data availability

Original values : 359
Estimated values (Flag e) : 6
Missing values (Flag m) : 0

Comments :

Supply canal 1984

Daily mean flows (cubic metres per second)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.1	14.1	17.8	10.7	0.0
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.1	14.1	17.8	9.9	0.0
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.1	14.7	17.8	9.8	0.0
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.1	14.2	17.8	9.8	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.1	13.8	19.4	1.4e	0.0
6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.2	13.5	19.7	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.1	13.2	19.9	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.7	13.2	19.8	0.0	0.0
9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.2	13.2	19.6	0.0	0.0
10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0	13.5	19.3	0.0	0.0
11	0.0	0.0	0.0	0.0	0.0	0.0	1.2e	12.0	13.5	18.6	0.0	0.0
12	0.0	0.0	0.0	0.0	0.0	0.0	6.6	12.0	13.5	17.9	0.0	0.0
13	0.0	0.0	0.0	0.0	0.0	0.0	8.8	12.0	13.5	17.1	0.0	0.0
14	0.0	0.0	0.0	0.0	0.0	0.0	8.8	12.0	13.5	16.8	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	0.0	8.6	12.0	13.5	16.8	0.0	0.0
16	0.0	0.0	0.0	0.0	0.0	0.0	8.4	12.1	13.8	16.8	0.0	0.0
17	0.0	0.0	0.0	0.0	0.0	0.0	8.1	12.3	13.8	16.8	0.0	0.0
18	0.0	0.0	0.0	0.0	0.0	0.0	7.9	12.3	13.8	16.8	0.0	0.0
19	0.0	0.0	0.0	0.0	0.0	0.0	7.5	12.3	13.8	16.8	0.0	0.0
20	0.0	0.0	0.0	0.0	0.0	0.0	7.0	12.3	13.8	16.8	0.0	0.0
21	0.0	0.0	0.0	0.0	0.0	0.0	6.6	12.3	13.8	16.8	0.0	0.0
22	0.0	0.0	0.0	0.0	0.0	0.0	6.3	12.3	13.8	16.8	0.0	0.0
23	0.0	0.0	0.0	0.0	0.0	0.0	6.3	12.1	13.8	16.4	0.0	0.0
24	0.0	0.0	0.0	0.0	0.0	0.0	6.2	11.6	14.1	12.4	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	6.0	11.5	15.2	10.5	0.0	0.0
26	0.0	0.0	0.0	0.0	0.0	0.0	6.1	11.6	17.0	11.5	0.0	0.0
27	0.0	0.0	0.0	0.0	0.0	0.0	6.1	12.0	17.8	11.5	0.0	0.0
28	0.0	0.0	0.0	0.0	0.0	0.0	6.1	12.0	17.8	11.5	0.0	0.0
29	0.0	0.0	0.0	0.0	0.0	0.0	6.1	12.0	17.8	11.5	0.0	0.0
30	0.0		0.0	0.0	0.0	0.0	6.1	13.1	17.8	11.5	0.0	0.0
31	0.0		0.0		0.0		6.1	14.1		11.0		0.0
Mean	0.0	0.0	0.0	0.0	0.0	0.0	4.5	10.9	14.5	16.2	1.4	0.0
Maximum	0.0	0.0	0.0	0.0	0.0	0.0	8.8	14.1	17.8	19.9	10.7	0.0
Minimum	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.1	13.2	10.5	0.0	0.0
Total	0	0	0	0	0	0	12	29	37	43	4	0

(Total flows in million cubic metres per month)

Annual statistics

Mean	:	4.0	(cubic metres per second)
Maximum	:	19.9	(cubic metres per second)
Minimum	:	0.0	(cubic metres per second)
Total	:	126	(million cubic metres)

Data availability

Original values	:	364
Estimated values (Flag e)	:	2
Missing values (Flag m)	:	0

Comments : Canal only operated in the Der season due to low flows on the Shebelli

Supply canal 1985

Daily mean flows (cubic metres per second)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	0.0	0.0	0.0	25.7	29.2	4.2	4.1	23.7	20.8	0.0	0.0
2	0.0	0.0	0.0	0.0	25.7	29.2	4.1	4.1	23.6	20.8	0.0	0.0
3	0.0	0.0	0.0	0.0	25.7	29.2	3.9	4.4	23.6	20.8	0.0	0.0
4	0.0	0.0	0.0	0.0	25.7	29.2	3.8	4.4	23.1	20.8	0.0	0.0
5	0.0	0.0	0.0	0.0	29.0	28.4	3.8	4.4	21.7	20.9	0.0	0.0
6	0.0	0.0	0.0	0.0	29.2	28.3	3.8	4.4	21.6	21.2	0.0	0.0
7	0.0	0.0	0.0	0.0	29.2	28.3	3.8	4.4	21.6	21.2	0.0	0.0
8	0.0	0.0	0.0	0.0	28.5	27.8	3.8	4.4	21.6	20.2	0.0	0.0
9	0.0	0.0	0.0	0.0	26.7	27.4	3.8	4.4	21.6	20.0	0.0	0.0
10	0.0	0.0	0.0	0.0	26.9	27.4	3.8	4.4	21.6	19.4	0.0	0.0
11	0.0	0.0	0.0	0.0	27.0	27.4	3.8	4.6	21.6	19.3	0.0	0.0
12	0.0	0.0	0.0	0.0	27.0	27.4	3.6	4.6	21.6	19.3	0.0	0.0
13	0.0	0.0	0.0	0.0	27.0	27.3	3.5	4.6	21.6	19.9	0.0	0.0
14	0.0	0.0	0.0	0.0	27.0	25.4	3.4	4.6	21.6	19.4	0.0	0.0
15	0.0	0.0	0.0	0.0	27.2	24.9	3.4	4.6	21.6	18.6	0.0	0.0
16	0.0	0.0	0.0	0.0	26.6	17.4	3.3	4.6	21.6	17.7	0.0	0.0
17	0.0	0.0	0.0	0.0	27.3	16.1	3.3	4.6	21.6	15.4	0.0	0.0
18	0.0	0.0	0.0	0.0	27.4	16.4	3.3	4.7	21.6	11.9	0.0	0.0
19	0.0	0.0	0.0	0.0	28.5	16.4	3.3	4.8	21.6	10.9	0.0	0.0
20	0.0	0.0	0.0	0.0	29.2	16.4	3.6	4.8	21.6	10.9	0.0	0.0
21	0.0	0.0	0.0	0.0	29.6	16.1	3.6	4.9	21.6	11.1	0.0	0.0
22	0.0	0.0	0.0	0.0	30.1	16.1	3.6	4.9	21.6	11.2	0.0	0.0
23	0.0	0.0	0.0	0.0	30.2	15.0	3.6	12.0	21.6	10.5	0.0	0.0
24	0.0	0.0	0.0	2.2e	30.2	14.8	3.6	25.6	21.6	10.4	0.0	0.0
25	0.0	0.0	0.0	24.0	29.9	14.8	3.9	26.0	21.6	10.4	0.0	0.0
26	0.0	0.0	0.0	24.0	29.7	14.2	3.9	25.7	20.9	10.4	0.0	0.0
27	0.0	0.0	0.0	24.0	29.7	13.3	3.9	25.9	20.8	10.4	0.0	0.0
28	0.0	0.0	0.0	21.5	29.7	12.7	4.1	25.0	20.8	10.4	0.0	0.0
29	0.0		0.0	22.8	29.7	12.6	4.1	24.8	20.8	10.4	0.0	0.0
30	0.0		0.0	24.7	29.7	9.1	4.1	24.1	20.8	7.9	0.0	0.0
31	0.0		0.0		29.3		4.1	24.0		1.3e		0.0
Mean	0.0	0.0	0.0	4.8	28.2	21.3	3.7	10.1	21.7	15.3	0.0	0.0
Maximum	0.0	0.0	0.0	24.7	30.2	29.2	4.2	26.0	23.7	21.2	0.0	0.0
Minimum	0.0	0.0	0.0	0.0	25.7	9.1	3.3	4.1	20.8	1.3	0.0	0.0
Total	0	0	0	12	76	55	10	27	56	41	0	0

(Total flows in million cubic metres per month)

Annual statistics

Mean : 8.8 (cubic metres per second)
Maximum : 30.2 (cubic metres per second)
Minimum : 0.0 (cubic metres per second)
Total : 277 (million cubic metres)

Data availability

Original values : 363
Estimated values (Flag e) : 2
Missing values (Flag m) : 0

Comments :

Supply canal 1986

Daily mean flows (cubic metres per second)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	0.0	0.0	0.0	8.3	15.5	15.6	16.1	16.4	17.4	0.0	0.0
2	0.0	0.0	0.0	0.0	10.1	15.4	15.8	16.1	16.4	15.9	0.0	0.0
3	0.0	0.0	0.0	0.0	11.5	15.4	15.8	16.1	16.4	15.8	0.0	0.0
4	0.0	0.0	0.0	0.0	11.5	15.4	15.8	16.1	16.4	15.8	0.0	0.0
5	0.0	0.0	0.0	0.0	14.9	15.4	16.1	16.1	16.4	15.8	0.0	0.0
6	0.0	0.0	0.0	0.0	18.4	15.4	16.1	16.2	14.4	15.8	0.0	0.0
7	0.0	0.0	0.0	0.0	10.7	15.4	16.1	16.4	13.2	15.8	0.0	0.0
8	0.0	0.0	0.0	0.0	2.0	15.4	16.1	16.4	13.2	15.8	0.0	0.0
9	0.0	0.0	0.0	0.0	6.2	15.4	16.1	16.4	16.0	15.2	0.0	0.0
10	0.0	0.0	0.0	0.0	14.3	15.4	16.1	16.4	16.4	15.1	0.0	0.0
11	0.0	0.0	0.0	0.0	14.5	15.4	16.1	16.4	16.4	15.1	0.0	0.0
12	0.0	0.0	0.0	0.0	14.7	15.2	16.1	16.4	16.7	15.1	0.0	0.0
13	0.0	0.0	0.0	0.0	14.8	15.1	16.1	16.4	16.5	15.1	0.0	0.0
14	0.0	0.0	0.0	0.0	14.8	15.1	16.1	16.4	16.7	15.1	0.0	0.0
15	0.0	0.0	0.0	0.0	15.1	15.1	16.1	16.1	16.5	15.1	0.0	0.0
16	0.0	0.0	0.0	0.0	12.9	15.1	16.1	16.3	16.4	2.5e	0.0	0.0
17	0.0	0.0	0.0	0.5e	12.6	15.1	16.1	16.4	16.4	0.0	0.0	0.0
18	0.0	0.0	0.0	1.0e	12.6	15.1	16.1	16.4	15.9	0.0	0.0	0.0
19	0.0	0.0	0.0	1.5e	12.6	15.1	16.1	16.4	15.8	0.0	0.0	0.0
20	0.0	0.0	0.0	2.0e	11.6	15.1	16.1	16.4	15.8	0.0	0.0	0.0
21	0.0	0.0	0.0	2.5	11.7	15.1	16.1	16.4	15.8	0.0	0.0	0.0
22	0.0	0.0	0.0	2.5	11.2	15.1	16.1	16.4	16.4	0.0	0.0	0.0
23	0.0	0.0	0.0	2.5	11.2	15.1	16.1	16.4	16.4	0.0	0.0	0.0
24	0.0	0.0	0.0	2.5	11.2	15.1	16.1	16.4	16.4	0.0	0.0	0.0
25	0.0	0.0	0.0	2.6	11.2	15.0	16.1	16.4	19.0	0.0	0.0	0.0
26	0.0	0.0	0.0	4.3	11.2	14.8	16.1	16.4	19.3	0.0	0.0	0.0
27	0.0	0.0	0.0	4.8	11.2	14.8	16.1	16.4	19.3	0.0	0.0	0.0
28	0.0	0.0	0.0	6.3	13.1	15.0e	16.1	16.4	19.3	0.0	0.0	0.0
29	0.0		0.0	6.5	15.0	15.2e	16.1	16.4	19.3	0.0	0.0	0.0
30	0.0		0.0	8.1	15.4	15.4e	16.1	16.4	19.3	0.0	0.0	0.0
31	0.0		0.0		15.7		16.1	16.4		0.0		0.0
Mean	0.0	0.0	0.0	1.6	12.3	15.2	16.1	16.4	16.6	7.6	0.0	0.0
Maximum	0.0	0.0	0.0	8.1	18.4	15.5	16.1	16.4	19.3	17.4	0.0	0.0
Minimum	0.0	0.0	0.0	0.0	2.0	14.8	15.6	16.1	13.2	0.0	0.0	0.0
Total	0	0	0	4	33	39	43	44	43	20	0	0

(Total flows in million cubic metres per month)

Annual statistics

Mean	:	7.2	(cubic metres per second)
Maximum	:	19.3	(cubic metres per second)
Minimum	:	0.0	(cubic metres per second)
Total	:	227	(million cubic metres)

Data availability

Original values	:	357
Estimated values (Flag e)	:	8
Missing values (Flag m)	:	0

Comments : No distinct Gu/Der seasons so canal operated continously from April to October

Supply canal 1987

Daily mean flows (cubic metres per second)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	0.0	0.0	0.0	0.0	24.8	37.0	31.1	5.7	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	24.8	37.0	31.1	5.7	0.0	0.0	0.0
3	0.0	0.0	0.0	0.0	0.0	24.8	36.9	32.1	5.7	0.0	0.0	0.0
4	0.0	0.0	0.0	0.0	0.0	27.0	36.2	37.0	5.7	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	28.7	37.0	36.0	5.7	0.0	0.0	0.0
6	0.0	0.0	0.0	0.0	0.0	34.0	36.7	34.9	5.7	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	1.4	34.5	33.0	33.0	5.7	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	1.4	34.5	32.1e	33.0	0.0	0.0	0.0	0.0
9	0.0	0.0	0.0	0.0	3.5	34.0	31.3e	33.0	0.0	0.0	0.0	0.0
10	0.0	0.0	0.0	0.0	4.2	34.0	30.5e	31.7	0.0	0.0	0.0	0.0
11	0.0	0.0	0.0	0.0	3.9	34.0	29.7e	31.1	0.0	0.0	0.0	0.0
12	0.0	0.0	0.0	0.0	5.1	34.1	28.9e	25.6	0.0	0.0	0.0	0.0
13	0.0	0.0	0.0	0.0	5.7	36.5	28.2e	20.4	0.0	0.0	0.0	0.0
14	0.0	0.0	0.0	0.0	7.1	37.0	27.4	19.3	0.0	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	12.5	37.0	27.4	19.3	0.0	0.0	0.0	0.0
16	0.0	0.0	0.0	0.0	14.9	37.0	27.4	17.1	0.0	0.0	0.0	0.0
17	0.0	0.0	0.0	0.0	16.9	36.7	26.4	11.2	0.0	0.0	0.0	0.0
18	0.0	0.0	0.0	0.0	17.1	37.0	24.7	8.8	0.0	0.0	0.0	0.0
19	0.0	0.0	0.0	0.0	17.1	37.0	29.4	8.3	0.0	0.0	0.0	0.0
20	0.0	0.0	0.0	0.0	17.1	37.0	29.8	8.3	0.0	0.0	0.0	0.0
21	0.0	0.0	0.0	0.0	17.1	37.0	29.7	7.9	0.0	0.0	0.0	0.0
22	0.0	0.0	0.0	0.0	17.2	37.0	29.7	7.9	0.0	0.0	0.0	0.0
23	0.0	0.0	0.0	0.0	18.0	37.0	29.2	7.8	0.0	0.0	0.0	0.0
24	0.0	0.0	0.0	0.0	21.2	37.0	29.3	7.6	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	21.9	37.0	30.2	7.6	0.0	0.0	0.0	0.0
26	0.0	0.0	0.0	0.0	22.4	37.0	31.7	7.4	0.0	0.0	0.0	0.0
27	0.0	0.0	0.0	0.0	22.4	37.0	32.0	7.4	0.0	0.0	0.0	0.0
28	0.0	0.0	0.0	0.0	23.4	37.0	32.0	7.0	0.0	0.0	0.0	0.0
29	0.0		0.0	0.0	23.7	37.0	32.0	6.8	0.0	0.0	0.0	0.0
30	0.0		0.0	0.0	24.5	37.0	31.8	6.6	0.0	0.0	0.0	0.0
31	0.0		0.0		24.8		31.1	7.7		0.0		0.0
Mean	0.0	0.0	0.0	0.0	11.8	34.5	31.2	18.8	1.3	0.0	0.0	0.0
Maximum	0.0	0.0	0.0	0.0	24.8	37.0	37.0	37.0	5.7	0.0	0.0	0.0
Minimum	0.0	0.0	0.0	0.0	0.0	24.8	24.7	6.6	0.0	0.0	0.0	0.0
Total	0	0	0	0	32	89	83	50	3	0	0	0

(Total flows in million cubic metres per month)

Annual statistics

Mean : 8.2 (cubic metres per second)
Maximum : 37.0 (cubic metres per second)
Minimum : 0.0 (cubic metres per second)
Total : 258 (million cubic metres)

Data availability

Original values : 359
Estimated values (Flag e) : 6
Missing values (Flag m) : 0

Comments : Canal operated continously from May to September

Supply canal 1988

Daily mean flows (cubic metres per second)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	0.0	0.0	0.0	2.5	0.0	0.0	24.0	20.8	23.6	24.0	4.2
2	0.0	0.0	0.0	0.0	3.9e	0.0	0.0	23.7	20.8	19.7	24.0	4.2
3	0.0	0.0	0.0	0.0	5.9	0.0	0.0	20.2	20.8	19.3	24.4	3.9
4	0.0	0.0	0.0	0.0	6.3	0.0	0.0	18.7	20.8	19.3	24.4	3.8
5	0.0	0.0	0.0	0.0	3.8	0.0	0.0	18.5	20.7	19.3	24.4	3.6
6	0.0	0.0	0.0	0.0	4.9e	0.0	0.0	18.3	21.3	19.3	24.8	3.5
7	0.0	0.0	0.0	0.0	6.3e	0.0	0.0	18.5	22.6	19.3	24.8	3.4
8	0.0	0.0	0.0	0.0	8.2	0.0	0.0	18.6	22.7	18.9	24.8	2.8
9	0.0	0.0	0.0	0.0	9.5	0.0	0.0	18.5	22.3	18.9	24.8	0.1
10	0.0	0.0	0.0	0.0	9.1	0.0	0.0	17.8	21.2	18.9	24.8	0.0
11	0.0	0.0	0.0	0.0	9.4	0.0	0.0	17.2	18.3	18.9	24.8	0.0
12	0.0	0.0	0.0	0.0	13.9	0.0	0.0	17.8	14.9e	19.2	24.5	0.0
13	0.0	0.0	0.0	0.0	16.5	0.0	0.0	19.6	12.0	22.1	22.5	0.0
14	0.0	0.0	0.0	0.0	16.4	0.0	0.0	20.8	18.8	22.4	18.4	0.0
15	0.0	0.0	0.0	0.0	14.9	0.0	0.0	20.8	22.3	22.4	11.2	0.0
16	0.0	0.0	0.0	0.0	14.5	0.0	0.0	20.8	22.4	22.4	9.2	0.0
17	0.0	0.0	0.0	0.0	14.2	0.0	0.0	20.8	22.4	22.4	8.8	0.0
18	0.0	0.0	0.0	0.0	14.1	0.0	0.0	20.8	22.4	22.4	8.1	0.0
19	0.0	0.0	0.0	0.0	14.1	0.0	0.1	20.8	22.4	22.4	7.8	0.0
20	0.0	0.0	0.0	0.0	13.9	0.0	3.4	20.8	22.4	22.4	7.4	0.0
21	0.0	0.0	0.0	0.0	13.7	0.0	8.5	20.8	22.4	22.4	6.9	0.0
22	0.0	0.0	0.0	0.0	12.0	0.0	12.0	20.8	22.4	22.4	6.3	0.0
23	0.0	0.0	0.0	0.0	11.4	0.0	14.6	20.8	22.4	22.8	6.1	0.0
24	0.0	0.0	0.0	0.0	10.9	0.0	17.1	20.8	22.6	23.2	5.7	0.0
25	0.0	0.0	0.0	0.0	8.9	0.0	17.1	20.8	22.8	23.2	5.7	0.0
26	0.0	0.0	0.0	0.0	0.4	0.0	17.0	20.8	22.8	23.2	5.2	0.0
27	0.0	0.0	0.0	0.0	0.0	0.0	17.5	20.8	22.8	23.2	4.9	0.0
28	0.0	0.0	0.0	0.0	0.0	0.0	17.3	20.8	22.8	23.4	4.9	0.0
29	0.0	0.0	0.0	1.0	0.0	0.0	21.2	20.8	23.7	23.6	4.7	0.0
30	0.0		0.0	2.6	0.0	0.0	24.6	20.8	24.0	24.0	4.4	0.0
31	0.0		0.0		0.0		24.1	20.8		24.0e		0.0
Mean	0.0	0.0	0.0	0.1	8.4	0.0	6.3	20.2	21.4	21.6	14.8	1.0
Maximum	0.0	0.0	0.0	2.6	16.5	0.0	24.6	24.0	24.0	24.0	24.8	4.2
Minimum	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.2	12.0	18.9	4.4	0.0
Total	0	0	0	0	22	0	17	54	55	58	38	3

(Total flows in million cubic metres per month)

Annual statistics

Mean	:	7.8	(cubic metres per second)
Maximum	:	24.8	(cubic metres per second)
Minimum	:	0.0	(cubic metres per second)
Total	:	248	(million cubic metres)

Data availability

Original values	:	361
Estimated values (Flag e)	:	5
Missing values (Flag m)	:	0

Comments : Canal operations reflect a short Gu season and a long Der season on the Shebelli

Supply canal 1989

Daily mean flows (cubic metres per second)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	0.0	0.0	0.0	9.3	17.8	19.4	14.4	13.8	13.7	12.3	0.0
2	0.0	0.0	0.0	0.0	9.3	17.8	19.3	14.9	13.8	13.3	12.3	0.0
3	0.0	0.0	0.0	0.0	9.8	17.1	19.3	15.1	13.3	13.2	12.3	0.0
4	0.0	0.0	0.0	0.0	14.6	16.2	19.3	15.1	13.2	12.7	12.3	0.0
5	0.0	0.0	0.0	0.0	15.3	14.8	18.9	15.1	13.2	12.9	12.3	0.0
6	0.0	0.0	0.0	0.0	17.6	13.9	18.9	15.1	13.0	15.4	12.1	0.0
7	0.0	0.0	0.0	0.0	17.8	13.7	18.9	15.1	13.8	15.4	12.0	0.0
8	0.0	0.0	0.0	0.0	17.8	12.7	18.8	15.6	14.4	15.1	12.0	0.0
9	0.0	0.0	0.0	0.0	17.9	12.1	17.9	16.1	14.5	14.9	10.5	0.0
10	0.0	0.0	0.0	0.0	18.2	12.8	17.7	16.0	14.8	14.8	0.5	0.0
11	0.0	0.0	0.0	0.0	18.2	16.6	15.9	15.5	15.0	14.7	0.0	0.0
12	0.0	0.0	0.0	0.0	18.2	18.4	15.8	15.1	15.7	13.3	0.0	0.0
13	0.0	0.0	0.0	0.0	18.2	18.2	15.8	14.8	15.8	13.0	0.0	0.0
14	0.0	0.0	0.0	0.0	18.3	16.6	15.8	14.5	15.8	13.2	0.0	0.0
15	0.0	0.0	0.0	0.0	18.9	16.4	15.8	14.1	15.6	13.2	0.0	0.0
16	0.0	0.0	0.0	0.0	19.3	16.4	15.7	13.8	15.7	13.2	0.0	0.0
17	0.0	0.0	0.0	0.1	19.3	16.0	15.4	13.2	15.7	12.6	0.0	0.0
18	0.0	0.0	0.0	1.9	19.3	16.4	15.1	12.9	15.1	12.1	0.0	0.0
19	0.0	0.0	0.0	2.8	19.3	16.5	14.8	12.6	14.5	12.0	0.0	0.0
20	0.0	0.0	0.0	3.0	19.3	19.1	14.4	12.5	14.5	12.0	0.0	0.0
21	0.0	0.0	0.0	3.0	19.3	20.0	13.9	11.8	14.5	12.0	0.0	0.0
22	0.0	0.0	0.0	3.3	19.0	20.4	13.8	11.7	14.4	12.0	0.0	0.0
23	0.0	0.0	0.0	3.5	19.3	20.7	13.8	11.7	14.1	12.0	0.0	0.0
24	0.0	0.0	0.0	6.4	19.3	20.6	13.8	11.5	13.8	12.0	0.0	0.0
25	0.0	0.0	0.0	7.8	19.3	20.8	13.8	11.5	13.5	12.0	0.0	0.0
26	0.0	0.0	0.0	7.9	19.3	20.8	13.8	11.9	12.9	12.0	0.0	0.0
27	0.0	0.0	0.0	7.8	18.9	20.8	13.9	11.5	12.6	12.1	0.0	0.0
28	0.0	0.0	0.0	7.5	18.6	20.8	14.1	11.5	12.6	12.5	0.0	0.0
29	0.0		0.0	7.9	18.2	20.4	14.1	12.2	12.9	12.3	0.0	0.0
30	0.0		0.0	8.7	17.9	20.3	14.0	13.1	13.2	12.3	0.0	0.0
31	0.0		0.0		17.8		14.9	13.8		12.3e		0.0
Mean	0.0	0.0	0.0	2.4	17.5	17.5	16.0	13.7	14.2	13.0	3.6	0.0
Maximum	0.0	0.0	0.0	8.7	19.3	20.8	19.4	16.1	15.8	15.4	12.3	0.0
Minimum	0.0	0.0	0.0	0.0	9.3	12.1	13.8	11.5	12.6	12.0	0.0	0.0
Total	0	0	0	6	47	45	43	37	37	35	9	0

(Total flows in million cubic metres per month)

Annual statistics

Mean : 8.2 (cubic metres per second)
Maximum : 20.8 (cubic metres per second)
Minimum : 0.0 (cubic metres per second)
Total : 259 (million cubic metres)

Data availability

Original values : 364
Estimated values (Flag e) : 1
Missing values (Flag m) : 0

Comments : Canal operated continuously from April to November

OUTLET CANAL

1980 - 1989

Outlet canal 1980

Daily mean flows (cubic metres per second)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	0.0	0.0	0.0	0.0	16.9	0.0	0.0	0.0	14.9	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	16.4	0.0	0.0	0.0	15.7	0.0	0.0
3	0.0	0.0	0.0	0.0	0.0	15.2	0.0	0.0	0.0	15.0	0.0	0.0
4	0.0	0.0	0.0	0.0	0.0	14.5	0.0	0.0	0.0	14.4	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	14.1	0.0	0.0	0.0	13.9	0.0	0.0
6	0.0	0.0	0.0	0.0	0.0	13.5	0.0	0.0	0.0	13.4	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	13.1	0.0	0.0	0.0	13.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	13.0	0.0	0.0	0.0	12.7	0.0	0.0
9	0.0	0.0	0.0	0.0	0.0	13.0	0.0	0.0	0.0	12.6	0.0	0.0
10	0.0	0.0	0.0	0.0	0.0	13.0	0.0	0.0	0.0	12.3	0.0	0.0
11	0.0	0.0	0.0	0.0	0.0	12.8	0.0	0.0	0.0	12.1	0.0	0.0
12	0.0	0.0	0.0	0.0	0.0	12.5	0.0	0.0	0.0	12.0	0.0	0.0
13	0.0	0.0	0.0	0.0	0.0	12.3	0.0	0.0	0.0	0.0	0.0	0.0
14	0.0	0.0	0.0	0.0	0.0	12.2	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	12.1	0.0	0.0	0.0	0.0	0.0	0.0
16	0.0	0.0	0.0	0.0	0.0	9.5	0.0	0.0	0.0	0.0	0.0	0.0
17	0.0	0.0	0.0	0.0	0.0	7.4	0.0	0.0	0.0	0.0	0.0	0.0
18	0.0	0.0	0.0	0.0	0.0	7.3	0.0	0.0	0.0	0.0	0.0	0.0
19	0.0	0.0	0.0	0.0	0.0	7.5	0.0	0.0	0.0	0.0	0.0	0.0
20	0.0	0.0	0.0	0.0	0.0	7.2	0.0	0.0	0.0	0.0	0.0	0.0
21	0.0	0.0	0.0	0.0	0.0	6.6	0.0	0.0	0.0	0.0	0.0	0.0
22	0.0	0.0	0.0	0.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0
23	0.0	0.0	0.0	0.0	0.0	4.6	0.0	0.0	0.0	0.0	0.0	0.0
24	0.0	0.0	0.0	0.0	0.0	3.2	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
26	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0
27	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	22.3	0.0	0.0	0.0
28	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	19.3	0.0	0.0	0.0
29	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	16.4	0.0	0.0	0.0
30	0.0		0.0	0.0	22.8	0.6	0.0	0.0	14.3	0.0	0.0	0.0
31	0.0		0.0		19.3		0.0	0.0		0.0		0.0
Mean	0.0	0.0	0.0	0.0	1.4	9.0	0.0	0.0	2.4	5.2	0.0	0.0
Maximum	0.0	0.0	0.0	0.0	22.8	16.9	0.0	0.0	22.3	15.7	0.0	0.0
Minimum	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0
Total	0	0	0	0	4	23	0	0	6	14	0	0

(Total flows in million cubic metres per month)

Annual statistics

Mean : 1.5 (cubic metres per second)
Maximum : 22.8 (cubic metres per second)
Minimum : 0.0 (cubic metres per second)
Total : 47 (million cubic metres)

Data availability

Original values : 366
Estimated values (Flag e) : 0
Missing values (Flag m) : 0

Comments : First year of operations

Outlet canal

1981

Daily mean flows (cubic metres per second)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.2
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.7
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.2
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.2
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.3
6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.2
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.2
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.2
9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.2
10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.2
11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.2
12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.2
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.2
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.3
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.3
16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.3
17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.3	6.3
18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.5	6.3
19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.6	6.2
20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.4	6.1
21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.7	6.0
22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.2	7.9
23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.2	13.2
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.8	12.6
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.8	12.5
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.9	12.2
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.4	12.0
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.6	12.0
29	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.2	12.0
30	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.5	11.9
31	0.0		0.0		0.0		0.0	0.0		0.0		11.8
Mean	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.4	8.1
Maximum	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.3	13.2
Minimum	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0
Total	0	0	0	0	0	0	0	0	0	0	17	22

(Total flows in million cubic metres per month)

Annual statistics

Mean	:	1.2	(cubic metres per second)
Maximum	:	22.3	(cubic metres per second)
Minimum	:	0.0	(cubic metres per second)
Total	:	38	(million cubic metres)

Data availability

Original values	:	365
Estimated values (Flag e)	:	0
Missing values (Flag m)	:	0

Comments : Canal not operated until November

Outlet canal 1982

Daily mean flows (cubic metres per second)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	11.7	10.6	9.1	7.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	11.7	10.6	9.0	7.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	11.6	10.5	8.8	7.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	11.5	10.5	8.6	7.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	11.5	10.5	8.4	7.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	11.0	10.5	9.1	7.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	9.7	10.3	10.1	6.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	9.5	10.3	10.2	6.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	9.4	10.3	10.2	6.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	9.4	10.3	10.1	6.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	9.4	10.3	10.0	6.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	9.4	10.3	9.9	6.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	9.4	10.3	9.9	6.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	10.6	10.3	9.7	6.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	11.9	10.2	9.7	6.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	11.6	10.1	9.6	6.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	11.6	10.1	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	11.6	9.8	9.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	11.4	9.6	9.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	11.3	9.5	8.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	11.2	9.5	8.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	11.1	9.5	8.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	11.1	9.5	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	11.0	9.5	7.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	10.9	9.5	7.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	10.8	9.5	7.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	10.8	9.4	7.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	10.7	9.3	7.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	10.6		7.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	10.6		7.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31	10.6		7.4		0.0		0.0	0.0		0.0		0.0
Mean	10.8	10.0	8.9	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maximum	11.9	10.6	10.2	7.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Minimum	9.4	9.3	7.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	29	24	24	9	0	0	0	0	0	0	0	0

(Total flows in million cubic metres per month)

Annual statistics

Mean : 2.7 (cubic metres per second)
Maximum : 11.9 (cubic metres per second)
Minimum : 0.0 (cubic metres per second)
Total : 86 (million cubic metres)

Data availability

Original values : 365
Estimated values (Flag e) : 0
Missing values (Flag m) : 0

Comments : Following Der season, canal not operated until January of following year

Outlet canal 1983

Daily mean flows (cubic metres per second)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	22.8	20.6	17.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.4e
2	0.0	22.6	20.5	17.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.4e
3	0.0	22.6	20.3	17.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.4e
4	0.0	22.6	20.1	17.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.4e
5	0.0	22.4	20.1	17.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.4e
6	0.0	22.4	20.1	17.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.4e
7	0.0	22.4	20.0	17.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.4e
8	0.0	22.4	19.8	16.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.4e
9	0.0	22.2	19.8	16.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.4e
10	0.0	22.2	19.8	16.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.4e
11	0.0	22.0	19.8	16.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.4e
12	0.0	22.0	19.8	16.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.4e
13	0.0	22.0	19.6	16.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.4e
14	0.0	21.8	19.6	15.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.4e
15	0.0	21.8	19.4	15.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.4e
16	0.0	21.6	19.2	15.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.4e
17	0.0	21.6	19.1	15.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.4e
18	0.0	21.4	19.1	15.2	0.0	0.0	0.0	0.0	0.0	0.0	22.4e	22.4e
19	23.1	21.4	19.1	15.2	0.0	0.0	0.0	0.0	0.0	0.0	22.4e	22.4e
20	22.3	21.5	19.1	14.8	0.0	0.0	0.0	0.0	0.0	0.0	22.4e	22.4e
21	20.9	21.6	19.0	14.6	0.0	0.0	0.0	0.0	0.0	0.0	22.4e	22.4e
22	18.8	21.6	18.9	14.5	0.0	0.0	0.0	0.0	0.0	0.0	22.4e	22.4e
23	17.7	21.6	18.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.4e	22.4e
24	17.5	21.4	18.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.4e	22.4e
25	17.2	21.3	18.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.4e	22.4e
26	17.1	21.1	18.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.4e	22.4e
27	17.0	21.0	18.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.4e	22.4e
28	16.7	20.8	18.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.4e	22.4e
29	17.0		18.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.4e	22.4e
30	21.9		18.1e	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.4e	22.4e
31	23.0		17.9e		0.0		0.0	0.0		0.0		22.4e
Mean	8.1	21.9	19.3	11.9	0.0	0.0	0.0	0.0	0.0	0.0	9.7	22.4
Maximum	23.1	22.8	20.6	17.8	0.0	0.0	0.0	0.0	0.0	0.0	22.4	22.4
Minimum	0.0	20.8	17.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.4
Total	22	53	52	31	0	0	0	0	0	0	25	60

(Total flows in million cubic metres per month)

Annual statistics

Mean : 7.7 (cubic metres per second)
Maximum : 23.1 (cubic metres per second)
Minimum : 0.0 (cubic metres per second)
Total : 242 (million cubic metres)

Data availability

Original values : 319
Estimated values (Flag e) : 46
Missing values (Flag m) : 0

Comments : Nov/Dec flows estimated from volume changes in reservoir

Outlet canal

1984

Daily mean flows (cubic metres per second)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	22.4	16.6	19.6	19.2	13.5	0.0	0.0	0.0	0.0	0.0	19.4	9.5
2	22.3	16.4	19.5	19.1	13.3	0.0	0.0	0.0	0.0	0.0	19.3	9.4
3	21.9	16.3	19.4	19.0	13.0	0.0	0.0	0.0	0.0	0.0	19.0	9.4
4	21.6	16.2	19.2	18.7	12.9	0.0	0.0	0.0	0.0	0.0	18.8	9.3
5	21.4	16.1	19.2	18.5	12.7	0.0	0.0	0.0	0.0	0.0	18.6	9.2
6	21.2	16.1	19.1	18.4	12.5	0.0	0.0	0.0	0.0	0.0	18.5	9.2
7	21.3	16.1	19.1	18.3	12.4	0.0	0.0	0.0	0.0	0.0	18.3	9.1
8	22.2e	16.0	19.0	18.2	12.3	0.0	0.0	0.0	0.0	0.0	18.0	9.0
9	23.2	15.9	18.9	18.0	12.2	0.0	0.0	0.0	0.0	0.0	17.5	9.0
10	22.9	15.8	18.7	17.7	12.2	0.0	0.0	0.0	0.0	0.0	17.1	9.1
11	22.5	15.7	19.2	17.5	12.1	0.0	0.0	0.0	0.0	0.0	15.8	9.1
12	21.6	15.7	19.8	17.3	11.9	0.0	0.0	0.0	0.0	0.0	15.3	9.0
13	21.0	15.6	20.4	17.1	11.5	0.0	0.0	0.0	0.0	0.0	14.6	8.9
14	20.4	15.5	19.6	16.7	11.0	0.0	0.0	0.0	0.0	0.0	14.1	8.7
15	20.1	17.9	19.6	16.6	10.9	0.0	0.0	0.0	0.0	0.0	13.6	8.6
16	19.9	20.1	19.6	16.4	10.6	0.0	0.0	0.0	0.0	0.0	13.0	8.5
17	19.3	20.0	19.4	16.1	10.5	0.0	0.0	0.0	0.0	0.0	12.2	8.4
18	19.0	19.4	19.8	16.0	10.5	0.0	0.0	0.0	0.0	0.0	11.7	8.3
19	18.6	18.5	20.3	15.7	10.3	0.0	0.0	0.0	0.0	0.0	11.3	8.3
20	18.4	19.3	20.8	15.7	10.2	0.0	0.0	0.0	0.0	0.0	11.0	8.2
21	18.3	20.3	21.1	15.8	8.5	0.0	0.0	0.0	0.0	0.0	10.5	8.2
22	18.2	20.3	20.9	15.7	6.2	0.0	0.0	0.0	0.0	0.0	10.2	8.2
23	18.0	20.3	20.7	15.6	6.0	0.0	0.0	0.0	0.0	0.0	10.1	8.2
24	17.9	20.3	20.7	15.3	5.7	0.0	0.0	0.0	0.0	0.0	9.9	8.2
25	17.8	20.2	20.5	15.0	6.5	0.0	0.0	0.0	0.0	0.0	9.7	8.2
26	17.7	20.2	20.3	14.9	0.0	0.0	0.0	0.0	0.0	0.0	9.7	8.2
27	17.5	20.0	20.1	14.5	0.0	0.0	0.0	0.0	0.0	0.0	9.7	8.1
28	17.5	19.8	19.9	14.2	0.0	0.0	0.0	0.0	0.0	0.0	9.7	8.0
29	17.4	19.6	19.7	14.0	0.0	0.0	0.0	0.0	0.0	0.0	9.7	8.0
30	17.2		19.5	13.7	0.0	0.0	0.0	0.0	0.0	0.0	9.6	8.0
31	16.9		19.3		0.0		0.0	0.0		0.0		8.0
Mean	19.9	17.9	19.8	16.6	8.7	0.0	0.0	0.0	0.0	0.0	13.9	8.6
Maximum	23.2	20.3	21.1	19.2	13.5	0.0	0.0	0.0	0.0	0.0	19.4	9.5
Minimum	16.9	15.5	18.7	13.7	0.0	0.0	0.0	0.0	0.0	0.0	9.6	8.0
Total	53	45	53	43	23	0	0	0	0	0	36	23

(Total flows in million cubic metres per month)

Annual statistics

Mean	:	8.7	(cubic metres per second)
Maximum	:	23.2	(cubic metres per second)
Minimum	:	0.0	(cubic metres per second)
Total	:	276	(million cubic metres)

Data availability

Original values	:	365
Estimated values (Flag e)	:	1
Missing values (Flag m)	:	0

Comments : Canal operated until May due to low flows on Shebelli

Outlet canal 1985

Daily mean flows (cubic metres per second)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	8.0	14.2	11.3	8.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	m
2	8.0	14.2	11.2	8.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	m
3	8.0	14.1	11.1	7.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	m
4	8.0	14.1	11.1	7.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	m
5	8.0	14.1	11.3	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	m
6	8.1	13.6	11.2	6.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	m
7	8.7	13.5	11.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	m
8	9.3	13.5	11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	m
9	10.6	13.3	10.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	m
10	17.9	13.1	10.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	m
11	17.5	13.0	10.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	m
12	16.8	12.9	10.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	m
13	16.6	12.9	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	m
14	16.4	12.7	9.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	m
15	16.2	12.7	9.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	m
16	16.1	12.6	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	m	m
17	16.0	12.5	9.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	m	m
18	15.8	12.4	9.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	m	m
19	15.7	12.3	9.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	m	m
20	15.6	12.1	8.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	m	m
21	15.5	12.0	8.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	m	m
22	15.2	12.0	8.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	m	m
23	15.2	11.9	8.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	m	m
24	15.1	11.7	8.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	m	m
25	14.9	11.6	8.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	m	m
26	14.8	11.6	8.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	m	m
27	14.7	11.6	8.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	m	m
28	14.5	11.5	8.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	m	m
29	14.4		8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	m	m
30	14.4		7.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	m	m
31	14.2		7.7		0.0		0.0	0.0		0.0		m
Mean	13.6	12.8	9.6	1.5	0.0	0.0	0.0	0.0	0.0	0.0	-	-
Maximum	17.9	14.2	11.3	8.4	0.0	0.0	0.0	0.0	0.0	0.0	-	-
Minimum	8.0	11.5	7.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	-
Total	36	31	26	4	0	0	0	0	0	0	-	-

(Total flows in million cubic metres per month)

Annual statistics

Insufficient data for annual statistics

Data availability

Original values	:	319
Estimated values (Flag e)	:	0
Missing values (Flag m)	:	46

Comments : No data from mid November

Outlet canal 1986

Daily mean flows (cubic metres per second)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	m	m	22.8	m	m	m	m	m	m	m	m	m
2	m	m	22.6	m	m	m	m	m	m	m	m	m
3	m	m	22.6	m	m	m	m	m	m	m	m	m
4	m	m	22.4	m	m	m	m	m	m	m	m	m
5	m	m	22.4	m	m	m	m	m	m	m	m	m
6	m	m	22.2	m	m	m	m	m	m	m	m	m
7	m	m	22.2	m	m	m	m	m	m	m	m	m
8	m	m	22.2	m	m	m	m	m	m	m	m	m
9	m	m	22.0	m	m	m	m	m	m	m	m	m
10	m	m	22.0	m	m	m	m	m	m	m	m	m
11	m	m	22.0	m	m	m	m	m	m	m	m	m
12	m	m	22.0	m	m	m	m	m	m	m	m	m
13	m	m	22.0	m	m	m	m	m	m	m	m	m
14	m	m	22.5	m	m	m	m	m	m	m	m	m
15	m	m	22.5	m	m	m	m	m	m	m	m	m
16	m	m	22.4	m	m	m	m	m	m	m	m	m
17	23.1	m	22.3	m	m	m	m	m	m	m	m	m
18	22.9	m	22.2	m	m	m	m	m	m	m	m	m
19	22.8	m	22.0	m	m	m	m	m	m	m	m	m
20	m	23.2	21.8	m	m	m	m	m	m	m	m	m
21	m	23.1	21.6	m	m	m	m	m	m	m	m	m
22	m	23.0	21.4	m	m	m	m	m	m	m	m	m
23	m	23.0	21.3	m	m	m	m	m	m	m	m	m
24	m	23.0	21.0	m	m	m	m	m	m	m	m	m
25	m	23.0	20.8	m	m	m	m	m	m	m	m	m
26	m	23.0	20.7	m	m	m	m	m	m	m	m	m
27	m	22.8	20.5	m	m	m	m	m	m	m	m	m
28	m	22.8	20.3	m	m	m	m	m	m	m	m	m
29	m		20.1	m	m	m	m	m	m	m	m	m
30	m		20.0	m	m	m	m	m	m	m	m	m
31	m		20.0		m		m	m		m		m
Mean	-	-	21.7	-	-	-	-	-	-	-	-	-
Maximum	-	-	22.8	-	-	-	-	-	-	-	-	-
Minimum	-	-	20.0	-	-	-	-	-	-	-	-	-
Total	-	-	58	-	-	-	-	-	-	-	-	-

(Total flows in million cubic metres per month)

Annual statistics

Insufficient data for annual statistics

Data availability

Original values	:	43
Estimated values (Flag e)	:	0
Missing values (Flag m)	:	322

Comments : No data from April

Outlet canal 1987

Daily mean flows (cubic metres per second)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	m	m	23.3	m	m	m	m	m	m	m	m	m
2	m	m	23.1	m	m	m	m	m	m	m	m	m
3	m	m	22.9	m	m	m	m	m	m	m	m	m
4	m	m	22.6	m	m	m	m	m	m	m	m	m
5	m	m	22.4	m	m	m	m	m	m	m	m	m
6	m	m	22.2	m	m	m	m	m	m	m	m	m
7	m	m	22.0	m	m	m	m	m	m	m	m	m
8	m	m	21.9	m	m	m	m	m	m	m	m	m
9	m	m	21.7	m	m	m	m	m	m	m	m	m
10	m	m	21.3	m	m	m	m	m	m	m	m	m
11	m	m	21.1	m	m	m	m	m	m	m	m	m
12	m	m	20.9	m	m	m	m	m	m	m	m	m
13	m	m	20.6	m	m	m	m	m	m	m	m	m
14	m	m	20.2	m	m	m	m	m	m	m	m	m
15	m	m	19.9	m	m	m	m	m	m	m	m	m
16	m	m	19.6	m	m	m	m	m	m	m	m	m
17	m	m	19.6	m	m	m	m	m	m	m	m	m
18	m	m	19.4	m	m	m	m	m	m	m	m	m
19	m	m	19.2	m	m	m	m	m	m	m	m	m
20	m	m	19.1	m	m	m	m	m	m	m	m	m
21	m	m	19.0	m	m	m	m	m	m	m	m	m
22	m	m	18.9	m	m	m	m	m	m	m	m	m
23	m	m	18.7	m	m	m	m	m	m	m	m	m
24	m	m	18.7	m	m	m	m	m	m	m	m	m
25	m	m	18.5	m	m	m	m	m	m	m	m	m
26	m	m	18.4	m	m	m	m	m	m	m	m	m
27	m	m	18.3	m	m	m	m	m	m	m	m	m
28	m	m	18.1	m	m	m	m	m	m	m	m	m
29	m		18.0	m	m	m	m	m	m	m	m	m
30	m		17.8	m	m	m	m	m	m	m	m	m
31	m		17.7		m		m	m		m		m
Mean	-	-	20.2	-	-	-	-	-	-	-	-	-
Maximum	-	-	23.3	-	-	-	-	-	-	-	-	-
Minimum	-	-	17.7	-	-	-	-	-	-	-	-	-
Total	-	-	54	-	-	-	-	-	-	-	-	-

(Total flows in million cubic metres per month)

Annual statistics

Insufficient data for annual statistics

Data availability

Original values	:	31
Estimated values (Flag e)	:	0
Missing values (Flag m)	:	334

Comments : Data only available for March

Outlet canal 1988

Daily mean flows (cubic metres per second)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	23.4	23.4	m	m	m	m	m	m	m	m	m	m
2	23.4	23.4	m	m	m	m	m	m	m	m	m	m
3	23.4	23.4	m	m	m	m	m	m	m	m	m	m
4	23.4	23.4	m	m	m	m	m	m	m	m	m	m
5	23.4	23.4	m	m	m	m	m	m	m	m	m	m
6	23.4	23.4	m	m	m	m	m	m	m	m	m	m
7	23.4	23.4	m	m	m	m	m	m	m	m	m	m
8	23.4	23.4	m	m	m	m	m	m	m	m	m	m
9	23.4	23.4	m	m	m	m	m	m	m	m	m	m
10	23.4	23.4	m	m	m	m	m	m	m	m	m	m
11	23.4	23.4	m	m	m	m	m	m	m	m	m	m
12	23.4	23.4	m	m	m	m	m	m	m	m	m	m
13	23.4	23.4	m	m	m	m	m	m	m	m	m	m
14	23.4	23.4	m	m	m	m	m	m	m	m	m	m
15	23.4	23.4	m	m	m	m	m	m	m	m	m	m
16	23.4	23.4	m	m	m	m	m	m	m	m	m	m
17	23.4	23.4	m	m	m	m	m	m	m	m	m	m
18	23.4	m	m	m	m	m	m	m	m	m	m	m
19	23.4	m	m	m	m	m	m	m	m	m	m	m
20	23.4	m	m	m	m	m	m	m	m	m	m	m
21	23.4	m	m	m	m	m	m	m	m	m	m	m
22	23.4	m	m	m	m	m	m	m	m	m	m	m
23	23.4	m	m	m	m	m	m	m	m	m	m	m
24	23.4	m	m	m	m	m	m	m	m	m	m	m
25	23.4	m	m	m	m	m	m	m	m	m	m	m
26	23.4	m	m	m	m	m	m	m	m	m	m	m
27	23.4	m	m	m	m	m	m	m	m	m	m	m
28	23.4	m	m	m	m	m	m	m	m	m	m	m
29	23.4	m	m	m	m	m	m	m	m	m	m	m
30	23.4		m	m	m	m	m	m	m	m	m	m
31	23.4		m		m		m	m		m		m
Mean	23.4	-	-	-	-	-	-	-	-	-	-	-
Maximum	23.4	-	-	-	-	-	-	-	-	-	-	-
Minimum	23.4	-	-	-	-	-	-	-	-	-	-	-
Total	63	-	-	-	-	-	-	-	-	-	-	-

(Total flows in million cubic metres per month)

Annual statistics

Insufficient data for annual statistics

Data availability

Original values	:	48
Estimated values (Flag e)	:	0
Missing values (Flag m)	:	318

Comments : No data from mid February

Outlet canal 1989

Daily mean flows (cubic metres per second)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	m	m	m	m	m	m	m	m	m	m	m	m
2	m	m	m	m	m	m	m	m	m	m	m	m
3	m	m	m	m	m	m	m	m	m	m	m	m
4	m	m	m	m	m	m	m	m	m	m	m	m
5	m	m	m	m	m	m	m	m	m	m	m	m
6	m	m	m	m	m	m	m	m	m	m	m	m
7	m	m	m	m	m	m	m	m	m	m	m	m
8	m	m	m	m	m	m	m	m	m	m	m	m
9	m	m	m	m	m	m	m	m	m	m	m	m
10	m	m	m	m	m	m	m	m	m	m	m	m
11	m	m	m	m	m	m	m	m	m	m	m	m
12	m	m	m	m	m	m	m	m	m	m	m	m
13	m	m	m	m	m	m	m	m	m	m	m	m
14	m	m	m	m	m	m	m	m	m	m	m	m
15	m	m	m	m	m	m	m	m	m	m	m	m
16	m	m	m	m	m	m	m	m	m	m	m	m
17	m	m	m	m	m	m	m	m	m	m	m	m
18	m	m	m	m	m	m	m	m	m	m	m	m
19	m	m	m	m	m	m	m	m	m	m	m	m
20	m	m	m	m	m	m	m	m	m	m	m	m
21	m	m	m	m	m	m	m	m	m	m	m	m
22	m	m	m	m	m	m	m	m	m	m	m	m
23	m	m	m	m	m	m	m	m	m	m	m	m
24	m	m	m	m	m	m	m	m	m	m	m	m
25	m	m	m	m	m	m	m	m	m	m	m	m
26	m	m	m	m	m	m	m	m	m	m	m	m
27	m	m	m	m	m	m	m	m	m	m	m	m
28	m	m	m	m	m	m	m	m	m	m	m	m
29	m		m	m	m	m	m	m	m	m	m	m
30	m		m	m	m	m	m	m	m	m	m	m
31	m		m		m		m	m		m		m
Mean	-	-	-	-	-	-	-	-	-	-	-	-
Maximum	-	-	-	-	-	-	-	-	-	-	-	-
Minimum	-	-	-	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	-	-	-	-	-	-	-	-

(Total flows in million cubic metres per month)

Annual statistics

Insufficient data for annual statistics

Data availability

Original values	:	0
Estimated values (Flag e)	:	0
Missing values (Flag m)	:	365

Comments : No data available

SHEBELLI DOWNSTREAM OF SABUUN BARRAGE

1980 - 1989

Shebelli downstream of Sabuun barrage 1980

Daily mean flows (cubic metres per second)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	8.9	6.3	4.7	2.5	16.2	55.6	7.1	30.8	72.8	59.7	33.3	5.3
2	8.7	6.2	4.5	2.5	14.7	46.0	6.9	31.2	84.5	57.0	30.2	5.2
3	8.7	6.1	4.4	2.4	14.0	39.5	6.4	29.8	93.7	52.3	27.9	5.7
4	8.7	5.9	4.2	2.4	15.8	33.8	6.0	34.5	93.9	48.5	26.3	6.0
5	8.8	5.8	4.0	2.4	15.9	30.4	5.6	60.1	93.1	44.9	25.8	5.7
6	8.9	5.7	3.9	2.4	14.9	26.7	5.6	75.6	92.5	41.4	26.2	5.3
7	8.4	5.6	3.8	2.3	27.1	22.8	5.7	81.7	91.5	39.4	25.2	5.0
8	8.3	5.5	3.6	2.3	73.5	19.9	5.3	88.3	86.9	42.5	23.0	4.7
9	8.4	5.5	3.5	2.2	95.8	17.5	5.2	91.4	79.9	45.3	21.1	4.5
10	8.4	5.4	3.5	2.3	106.1	15.7	5.1	91.5	71.9	44.8	19.9	4.3
11	8.3	5.2	3.5	2.4	113.7	14.5	5.1	89.2	64.3	53.6	20.1	4.1
12	8.3	5.2	3.4	2.5	118.0	13.0	6.4	85.3	56.3	67.0	20.1	3.9
13	9.2	5.1	3.4	2.5	124.8	11.8	8.0	86.5	49.2	66.8	19.3	3.8
14	9.8	4.9	3.3	2.5	123.3	11.2	9.1	90.9	44.1	61.5	18.1	3.5
15	9.8	4.8	3.3	2.4	117.5	10.5	9.4	91.7	43.0	56.5	16.0	3.3
16	9.5	4.7	3.2	2.4	112.7	9.6	9.4	90.9	44.2	52.5	14.2	3.3
17	9.2	4.6	3.1	2.3	113.5	9.0	9.4	96.8	50.2	50.9	12.9	3.3
18	9.0	4.5	3.1	2.2	118.2	8.6	9.4	104.4	66.1	53.0	11.6	3.2
19	8.8	4.5	3.0	2.2	131.8	8.0	10.1	107.1	84.1	61.0	10.5	3.1
20	8.5	4.5	3.0	2.2	138.3	9.4	15.6	94.4	94.8	66.6	9.9	3.1
21	8.4	4.5	2.9	2.2	129.3	12.8	23.2	81.1	102.1	65.1	9.1	3.1
22	8.2	4.5	2.9	2.2	120.6	12.5	26.8	70.7	98.9	62.7	8.4	3.1
23	8.0	4.5	2.9	2.1	118.6	11.4	30.4	60.8	93.6	59.6	7.6	2.9
24	7.8	4.5	2.8	2.1	117.2	10.0	35.1	51.3	88.0	54.6	7.2	2.8
25	7.6	4.5	2.7	2.5	112.8	9.1	36.6	45.1	81.1	49.8	6.7	2.7
26	7.3	4.7	2.6	25.1	108.3	8.7	34.3	40.0	74.4	46.2	6.3	2.6
27	7.2	4.8	2.6	40.6	98.5	8.2	31.6	40.2	65.7	43.5	6.1	2.6
28	7.0	5.0	2.6	34.2	85.3	8.1	29.5	57.5	60.3	40.8	5.8	2.5
29	6.8	4.9	2.6	26.0	69.0	7.7	27.7	74.7	57.2	44.0	5.4	2.4
30	6.6		2.6	20.0	51.8	7.3	26.6	76.0	58.3	48.4	5.3	2.3
31	6.4		2.6		53.2		28.2	69.3		40.0		2.3e
Mean	8.3	5.1	3.3	6.8	86.1	17.0	15.5	71.6	74.5	52.3	16.0	3.7
Maximum	9.8	6.3	4.7	40.6	138.3	55.6	36.6	107.1	102.1	67.0	33.3	6.0
Minimum	6.4	4.5	2.6	2.1	14.0	7.3	5.1	29.8	43.0	39.4	5.3	2.3
Total	22	13	9	18	231	44	42	192	193	140	41	10

(Total flows in million cubic metres per month)

Annual statistics

Mean : 30.2 (cubic metres per second)
Maximum : 138.3 (cubic metres per second)
Minimum : 2.1 (cubic metres per second)
Total : 954 (million cubic metres)

Comments : A low flow year on the Shebelli

Data availability

Original values : 365
Estimated values (Flag e) : 1
Missing values (Flag m) : 0

Shebelli downstream of Sabuun barrage 1981

Daily mean flows (cubic metres per second)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	2.3	1.0	0.0e	127.5	124.7	130.9	30.0	36.0	139.3	143.8	125.5	28.0
2	2.2	1.0	0.0e	125.9	125.9	120.9	28.9	35.1	140.1	143.8	112.9	26.8
3	2.1	1.0	0.0e	124.7	126.0	118.2	28.3	35.1	139.1	144.5	102.6	25.8
4	1.9	0.9	0.0e	124.5	126.0	110.1	26.8	38.5	137.1	144.6	98.8	25.0
5	1.8	0.9	0.0e	121.4	125.4	114.0	26.4	41.3	137.9	143.8	94.9	24.1
6	1.8	0.8	0.0e	119.9	125.3	105.7	25.7	41.7	139.7	142.4	92.2	23.2
7	1.9	0.8	0.0e	119.9	125.3	99.1	24.3	40.2	139.4	142.3	87.2	22.8
8	1.7	0.8	0.0e	120.8	125.3	94.4	23.9	38.3	138.2	143.0	80.5	22.2
9	1.6	0.8	0.0e	121.3	126.5	88.5	23.5	36.4	140.0	144.4	74.5	21.3
10	1.6	0.7	0.0e	122.7	128.0	83.5	23.3	43.1	140.2	145.2	70.4	20.7
11	1.6	0.7	0.0e	124.4	128.8	79.3	23.3	65.0	140.6	144.6	71.4	20.6
12	1.6	0.7	0.0e	125.8	128.8	74.5	23.3	93.2	141.5	144.3	83.1	19.8
13	1.6	0.6	0.0e	126.0	128.8	70.7	22.8	111.3	142.2	143.8	96.2	18.9
14	1.5	0.6	0.0e	126.0	128.5	66.4	21.5	119.1	142.3	143.8	91.2	18.5
15	1.4	0.6	0.0e	125.4	128.1	62.3	21.1	118.3	142.3	143.2	81.6	18.2
16	1.4	0.6	0.0e	125.6	128.1	58.3	20.6	117.3	143.3	143.1	70.8	18.0
17	1.4	0.6	0.0e	126.0	128.1	53.7	20.1	122.0	144.3	143.7	62.9	17.7
18	1.4	0.6	0.0e	127.2	127.8	51.1	19.4	130.6	144.7	143.8	55.3	17.6
19	1.4	0.6	0.0e	126.2	127.4	48.5	19.4	136.7	143.3	143.8	50.8	16.9
20	1.3	0.6	0.0e	126.5	123.3	45.8	19.8	133.4	143.1	143.8	47.9	16.5
21	1.8	0.3e	3.9	127.1	123.9	43.8	19.5	126.0	143.2	143.8	44.1	16.3
22	1.7	0.1e	54.0	126.7	124.0	41.6	19.0	123.8	143.8	143.8	41.8	16.4
23	1.4	0.0e	90.8	125.9	122.5	39.6	18.5	120.9	143.8	143.8	40.5	15.9
24	1.3	0.0e	115.3	124.7	121.9	37.9	18.2	117.9	143.5	143.8	39.3	15.4
25	1.3	0.0e	131.4	124.7	126.9	36.4	18.0	117.6	143.1	143.8	37.5	15.4
26	1.3	0.0e	131.8	124.7	134.5	35.4	18.1	122.5	143.1	143.8	34.2	15.0
27	1.2	0.0e	130.9	124.7	136.0	34.5	20.1	128.1	143.7	143.8	33.5	14.8
28	1.1	0.0e	132.4	124.7	136.5	33.4	23.1	132.5	142.7	143.8	32.5	14.7
29	1.1		134.5	124.7	137.2	31.8	26.3	134.8	143.0	143.8	30.8	14.6
30	1.1		126.9	124.7	136.6	31.1	30.5	136.5	143.4	142.7	29.3	14.4
31	1.1		121.0		135.8		34.9	138.3		135.0		14.1
Mean	1.5	0.5	37.8	124.7	128.1	68.0	23.2	94.6	141.7	143.5	67.1	19.0
Maximum	2.3	1.0	134.5	127.5	137.2	130.9	34.9	138.3	144.7	145.2	125.5	28.0
Minimum	1.1	0.0	0.0	119.9	121.9	31.1	18.0	35.1	137.1	135.0	29.3	14.1
Total	4	1	101	323	343	176	62	253	367	384	174	51

(Total flows in million cubic metres per month)

Annual statistics

Mean : 71.1 (cubic metres per second)
Maximum : 145.2 (cubic metres per second)
Minimum : 0.0 (cubic metres per second)
Total : 2241 (million cubic metres)

Data availability

Original values : 337
Estimated values (Flag e) : 28
Missing values (Flag m) : 0

Comments : River dry until March followed by prolonged Gu and Der seasons

Shebelli downstream of Sabuun barrage 1982

Daily mean flows (cubic metres per second)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	14.0	10.0	6.9	11.1	123.3	147.3	43.5	58.8	139.3	101.0	153.6	135.4
2	13.8	9.7	6.8	10.0	122.2	146.6	42.0	60.8	138.2	95.3	153.9	126.1
3	13.2	9.6	6.5	9.2	122.5	146.9	39.2	65.1	137.4	89.1	153.6	125.3
4	13.1	9.6	6.4	8.7	120.2	147.9	37.4	69.4	139.1	84.8	154.9	139.2
5	13.3	9.2	6.4	8.2	117.9	147.6	36.9	70.8	138.7	79.0	156.3	150.6
6	13.0	9.1	6.4	8.0	115.8	147.2	35.4	73.3	137.5	74.2	156.6	147.8
7	12.9	9.1	6.4	7.8	110.7	148.0	34.8	76.2	137.9	74.9	156.8	135.1
8	12.6	9.2	6.3	7.2	108.7	150.7	34.3	77.9	137.4	81.0	156.6	116.7
9	12.1	9.8	6.2	6.8	107.7	149.3	33.4	79.8	136.7	98.8	153.4	106.7
10	11.9	9.8	6.1	6.4	108.1	147.4	32.8	87.3	135.2	124.6	152.0	115.4
11	11.8	9.7	6.6	6.2	111.6	142.9	33.0	100.0	135.1	128.1	152.5	125.9
12	11.6	9.9	9.6	5.9	119.3	133.7	32.7	106.9	134.2	112.3	154.8	124.9
13	11.5	9.9	11.4	5.9	122.5	116.9	31.8	110.1	132.9	100.3	154.4	116.0
14	11.4	9.9	11.7	7.2	114.3	102.4	31.1	118.7	131.6	113.1	155.0	106.2
15	11.4	9.8	11.3	28.9	97.7	93.9	31.3	121.5	130.2	128.5	155.4	99.1
16	11.4	9.6	10.6	47.3	86.7	94.4	32.2	123.8	128.3	132.6	155.9	92.2
17	11.2	9.4	9.9	65.9	92.8	93.6	38.6	120.2	126.7	138.8	155.4	85.7
18	11.0	9.2	9.1	82.8	106.9	87.9e	46.8	115.4	122.3	147.1	155.3	79.6
19	11.0	8.9	8.7	89.1	117.4	82.6	51.4	107.9	116.2	147.8	155.8	73.5
20	10.9	8.7	8.2	90.6	122.5	77.5	54.5	101.3	111.1	143.0	155.2	68.6
21	10.8	8.5	7.9	97.4	128.2	72.5	57.4	93.7	107.4	139.5	155.1	64.3
22	10.6	8.1	7.6	106.9	132.7	68.5	58.3	93.1	105.0	140.2	155.5	60.1
23	10.6	8.0	7.5	114.8	130.4	63.7	58.3	105.0	110.0	140.9	155.1	57.4
24	10.8	7.7	8.3	118.7	128.9	60.2	61.0	121.6	117.7	141.6	155.1	55.4
25	10.8	7.5	9.0	112.2	128.8	56.3	68.3	129.0	120.5	143.5	156.4	52.9
26	10.8	7.3	9.5	117.3	128.9	52.7	71.4	133.1	120.6	145.3	156.6	51.2
27	10.8	7.2	9.6	114.2	133.4	49.6	69.3	135.6	120.6	148.1	156.6	68.6
28	10.8	7.1	10.6	111.3	136.8	46.5	64.4	136.1	119.8	153.2	155.1	108.4
29	10.6		11.9	124.9	142.3	44.4	60.3	137.2	115.2	155.1	150.3	126.8
30	10.6		12.1	136.1	144.3	43.9	57.9	138.0	102.4	153.9	143.7	129.0
31	10.5		11.6		145.6		57.6	138.7		152.9		122.1
Mean	11.6	9.0	8.6	55.6	120.3	102.1	46.4	103.4	126.2	122.8	154.6	102.1
Maximum	14.0	10.0	12.1	136.1	145.6	150.7	71.4	138.7	139.3	155.1	156.8	150.6
Minimum	10.5	7.1	6.1	5.9	86.7	43.9	31.1	58.8	102.4	74.2	143.7	51.2
Total	31	22	23	144	322	265	124	277	327	329	401	274

(Total flows in million cubic metres per month)

Annual statistics

Mean	:	80.5	(cubic metres per second)
Maximum	:	156.8	(cubic metres per second)
Minimum	:	5.9	(cubic metres per second)
Total	:	2538	(million cubic metres)

Data availability

Original values	:	364
Estimated values (Flag e)	:	1
Missing values (Flag m)	:	0

Comments : An extended Der season

Shebelli downstream of Sabuun barrage 1983

Daily mean flows (cubic metres per second)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	111.6	22.5	23.9	10.1	121.1	138.5	123.9	96.6	157.4	144.6	153.7	108.3
2	103.0	22.1	23.1	10.0	127.7	141.2	122.3	109.1	156.7	144.6	154.2	105.3
3	94.0	21.0	23.0	9.8	128.4	144.6	111.4	114.2	155.5	144.6	155.3	101.6
4	87.8	20.0	22.8	9.6	127.5	147.3	100.0	121.3	155.1	144.6	155.9	98.8
5	80.6	19.2	22.1	9.6	125.7	148.7	94.0	131.1	155.1	144.6	155.9	95.8
6	73.4	18.7	21.1	9.6	127.1	151.1	87.8	137.7	155.1	144.6	154.5	91.8
7	67.1	18.4	20.1	9.6	128.7	152.9	83.4	143.9	155.1	144.6	155.0	87.2
8	61.3	18.3	19.3	9.3	130.3	152.9	80.1	148.3	155.6	144.6	155.8	83.7
9	56.8	17.9	18.8	9.2	134.3	154.1	77.1	149.0	155.2	144.6	155.2	80.3
10	53.0	17.7	18.4	9.0	136.7	155.0	89.7	147.5	155.0	144.6	155.1	75.8
11	49.9	17.5	19.0	8.8	135.7	154.8	106.4	147.8	154.3	143.9	155.8	71.9
12	47.2	18.5	20.6	8.5	132.8	155.1	111.2	148.3	155.0	143.8	153.0	68.3
13	44.3	20.4	19.8	8.3	133.5	153.9	104.4	150.5	154.4	144.5	150.6	65.3
14	41.9	20.4	20.8	8.3	131.6	155.2	95.1	154.0	153.7	145.8	149.5	61.9
15	39.8	20.5	20.8	8.3	122.5	156.4	86.5	154.0	153.6	146.0	147.6	59.2
16	38.0	20.9	19.8	8.0	108.4	156.4	81.7	156.3	153.1	145.4	146.7	57.1
17	36.3	20.7	18.6	8.2	100.8	156.5	76.7	156.3	152.8	144.0	144.6	55.0
18	34.0	23.2	17.4	9.4	93.5	155.3	70.7	156.6	153.1	143.2	138.3	52.8
19	32.5	32.3	16.4	12.2	84.4	152.4	65.6	157.6	153.6	145.5e	131.9	51.2
20	31.3	38.6	15.6	15.0	76.9	152.2	61.9	159.6	151.8	147.8e	129.6	49.6
21	30.3	39.9	15.0	29.3	78.5	151.8	60.0	159.5	151.5	150.2	128.2	47.7
22	29.4	38.8	14.4	64.4	91.3	152.6	59.8	159.1	151.0	151.2	129.0	46.5
23	28.7	35.8	13.7	70.3	99.1	153.7	57.0	162.2	150.5	150.6	131.2	45.3
24	27.8	32.5	13.1	68.7	93.8	153.1	56.6	162.9	150.5	150.2	132.2	43.9
25	26.9	29.7	12.7	66.5	88.6	152.8	56.6	160.9	150.2	150.2	131.0	42.7
26	25.8	27.6	12.2	62.3	101.6	152.0	56.6	159.6	147.8	151.9	129.5	41.7
27	25.1	26.4	11.6	58.7	104.5	148.0	56.0	160.2	146.8	151.4	126.9	40.5
28	24.5	25.0	11.5	57.9	106.2	143.1	54.4	160.0	145.8	151.3	122.8	39.1
29	24.1		11.2	78.4	119.0	136.6	52.8	159.8	145.3	151.5	116.5	37.9
30	23.4		10.4	107.2	130.2	126.5	53.0	157.8	145.3	151.3	109.9	36.8
31	23.0		10.2		135.7		66.8	157.7		153.4		35.5
Mean	47.5	24.4	17.3	28.5	114.7	150.2	79.4	148.4	152.5	147.1	141.8	63.8
Maximum	111.6	39.9	23.9	107.2	136.7	156.5	123.9	162.9	157.4	153.4	155.9	108.3
Minimum	23.0	17.5	10.2	8.0	76.9	126.5	52.8	96.6	145.3	143.2	109.9	35.5
Total	127	59	46	74	307	389	213	397	395	394	368	171

(Total flows in million cubic metres per month)

Annual statistics

Mean : 93.3 (cubic metres per second)
Maximum : 162.9 (cubic metres per second)
Minimum : 8.0 (cubic metres per second)
Total : 2941 (million cubic metres)

Data availability

Original values : 363
Estimated values (Flag e) : 2
Missing values (Flag m) : 0

Comments : An extended Der season

Shebelli downstream of Sabuun barrage 1984

Daily mean flows (cubic metres per second)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	34.6	20.8	14.4	10.2	13.8	73.9	29.0	39.5	114.0	139.2	36.0	14.9
2	33.5	20.4	14.1	9.9	14.1	67.5	27.9	69.5	104.1	140.1	34.1	14.6
3	33.0	20.4	13.9	9.9	13.9	61.6	29.1	96.4	91.9	140.5	32.8	14.2
4	31.8	20.1	13.5	9.6	13.7	59.1	32.3	107.0	79.8	146.2	32.9	13.8
5	31.4	19.9	13.3	9.6	15.4	78.5	41.6	104.9	69.3	143.1	33.4	13.3
6	31.0	19.6	13.1	9.3	16.9	98.7	62.2	99.4	60.2	143.1	31.5	13.3
7	30.6	19.2	12.9	9.2	15.4	102.4	85.4	96.1	58.6	142.2	29.3	12.9
8	29.7	18.9	12.9	9.2	14.9	100.7	96.7	91.8	58.9	139.6	28.0	12.9
9	29.6	18.7	12.7	9.2	14.7	94.0	95.6	94.4	66.9	134.3	26.3	12.6
10	29.1	18.6	12.5	9.1	14.5	90.9	89.8	102.0	92.6	124.3	24.9	12.6
11	28.6	18.6	12.3	9.1	14.3	91.8	89.0	107.0	111.1	116.0	23.6	12.3
12	28.2	18.3	12.0	9.1	13.0	88.3	82.8	107.6	111.3	110.3	22.9	11.9
13	27.7	17.7	11.8	9.1	10.7	81.1	75.3	108.5	106.3	104.3	22.8	11.2
14	27.3	17.5	11.7	9.1	11.4	87.6	70.9	117.7	104.6	95.8	22.7	11.0
15	27.3	17.4	11.7	9.1	30.2	99.9	65.9	117.9	112.2	86.4	22.0	11.0
16	27.1	17.2	11.6	9.1	35.7	100.6	62.9	122.0	118.9	79.7	19.5	10.9
17	26.8	17.2	11.4	9.1	21.7	88.6	60.9	124.7	123.0	73.4	18.6	10.8
18	26.7	17.0	11.0	9.1	12.2	75.3	57.8	125.9	127.1	83.1	18.5	10.3
19	26.4	16.7	10.8	9.1	10.5	64.0	56.8	127.2	128.4	111.7	18.0	10.2
20	25.8	16.5	10.8	9.3	9.9	56.8	56.3	124.9	129.6	122.2	17.4	9.8
21	25.2	16.3	10.8	10.8	8.7	52.5	56.0	120.0	130.9	115.3	17.4	9.3
22	24.1	16.1	10.8	10.2	8.2	50.0	52.5	112.0	131.3	98.5	17.8	9.2
23	23.9	16.1	10.8	9.2	17.6	46.0	48.2	105.4	131.6	79.9	18.5	9.0
24	23.6	15.9	10.8	9.1	63.9	43.3	44.6	109.8	133.9	66.9	18.9	8.7
25	23.3	15.5	10.8	8.9	96.3	39.5	40.6	120.4	140.7	57.5	18.1	8.6
26	22.9	15.4	10.8	13.1	111.1	36.4	37.8	129.0	140.1	51.8	17.2	8.3
27	22.4	15.4	10.8	16.2	116.5	34.6	35.2	134.8	139.9	49.2	16.5	8.4
28	22.0	14.8	10.6	12.9	116.5	32.9	33.1	136.1	139.5	48.9	16.3	10.3
29	21.7	14.6	10.6	12.7	110.6	31.9	32.1	132.9	138.3	49.4	15.8	11.6
30	21.5		10.6	13.8	99.7	31.2	31.8	124.8	137.7	45.9	15.3	10.7
31	21.2		10.6		94.1		30.3	117.1		40.8		10.0
Mean	27.0	17.6	11.8	10.1	37.4	68.7	55.2	110.5	111.1	99.3	22.9	11.2
Maximum	34.6	20.8	14.4	16.2	116.5	102.4	96.7	136.1	140.7	146.2	36.0	14.9
Minimum	21.2	14.6	10.6	8.9	8.2	31.2	27.9	39.5	58.6	40.8	15.3	8.3
Total	72	44	32	26	100	178	148	296	288	266	59	30

(Total flows in million cubic metres per month)

Annual statistics

Mean	:	48.7	(cubic metres per second)
Maximum	:	146.2	(cubic metres per second)
Minimum	:	8.2	(cubic metres per second)
Total	:	1540	(million cubic metres)

Data availability

Original values	:	366
Estimated values (Flag e)	:	0
Missing values (Flag m)	:	0

Comments : Easily the latest ever start to the Gu season and a low-flow year overall

Shebelli downstream of Sabuun barrage 1985

Daily mean flows (cubic metres per second)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	9.1	6.0	4.8	3.3	149.4	159.3	53.0	73.9	135.0	91.9	40.2	17.3
2	8.7	6.0	4.7	3.2	151.1	158.9	50.8	75.1	133.3	91.9	39.1	17.2
3	8.6	6.0	4.7	3.1	153.7	159.5	47.6	78.1	128.3	94.8	36.3	16.0
4	8.7	6.0	4.7	4.0	153.7	158.5	46.4	84.1	122.7	100.6	36.2	15.1
5	8.7	6.0	4.6	4.9	150.9	155.3	48.3	98.4	115.1	101.3	49.0	14.2
6	9.0	6.0	4.6	34.4	150.5	152.6	48.7	108.9	109.9	98.8	52.0	13.8
7	8.9	5.9	4.5	75.7	152.1	151.3	46.7	113.8	105.5	96.7	49.0	13.7
8	8.9	5.7	4.3	81.4	155.4	149.8	44.1	110.1	102.4	97.8	41.6	13.3
9	8.6	5.5	4.1	70.8	156.6	149.0	42.6	109.8	101.5	98.4	34.3	12.9
10	8.6	5.2	4.0	55.9	155.2	149.5	41.5	118.5	101.6	89.8	30.2	11.9
11	8.6	5.2	3.9	45.8	153.9	149.1	40.6	128.0	105.3	83.0	28.1	12.1
12	8.7	5.1	3.9	42.9	151.9	148.6	39.7	133.6	109.7	79.9	26.6	11.8
13	8.6	5.1	3.9	40.6	151.3	140.2	40.4	137.6	113.4	87.0	25.3	11.6
14	8.3	5.1	3.9	35.8	152.4	126.9	40.8	139.9	115.1	77.2	23.3	11.3
15	8.1	5.1	3.8	32.6	154.7	109.3	40.5	142.1	108.4	61.9	22.7	11.2
16	7.9	5.0	3.8	28.3	153.8	95.0	39.1	144.6	102.0	53.6	22.5	11.0
17	7.7	5.0	3.8	24.8	153.8	90.6	38.2	147.8	96.8	54.0	22.6	11.0
18	7.6	5.0	3.7	27.6	155.6	83.5	35.9	151.1	97.6	56.3	22.3	10.8
19	7.4	4.8	3.7	65.9	158.1	75.3	34.1	152.0	99.7	61.4	23.6	10.6
20	7.4	4.7	3.6	109.9	160.5	71.9	33.4	151.4	99.9	71.7	23.4	10.5
21	7.2	4.8	3.5	125.2	160.5	64.2	33.3	152.2	95.3	76.1	22.8	9.2
22	7.1	5.0	3.5	132.4	162.6	59.6	33.0	153.8	92.0	74.2	22.7	8.6
23	7.0	5.1	3.6	135.8	162.8	56.5	32.9	148.9	93.6	65.9	21.2	8.4
24	6.8	5.2	3.6	141.1	162.1	49.6	35.7	134.0	96.3	65.5	20.9	8.1
25	6.7	5.1	3.5	134.3	161.4	48.9	40.2	129.9	96.6	83.3	20.8	8.1
26	6.5	5.0	3.5	133.8	161.0	49.2	48.5	130.1	94.2	73.4	20.1	7.9
27	6.4	5.0	3.5	135.1	159.8	47.4	62.1	129.9	90.7	51.2	19.0	7.7
28	6.4	4.9	3.3	138.9	159.3	47.9	68.5	127.7	87.7	43.6	18.1	7.7
29	6.3		3.3	145.1	159.6	48.3	68.7	128.3	89.0	39.4	18.3	7.6
30	6.2		3.3	146.2	159.7	50.6	69.0	130.8	91.3	35.9	17.2	7.4
31	6.2		3.3		163.2		71.4e	134.1		34.6		7.4
Mean	7.8	5.3	3.9	72.0	156.3	105.2	45.7	125.8	104.3	73.9	28.3	11.1
Maximum	9.1	6.0	4.8	146.2	163.2	159.5	71.4	153.8	135.0	101.3	52.0	17.3
Minimum	6.2	4.7	3.3	3.1	149.4	47.4	32.9	73.9	87.7	34.6	17.2	7.4
Total	21	13	10	187	419	273	122	337	270	198	73	30

(Total flows in million cubic metres per month)

Annual statistics

Mean : 61.9 (cubic metres per second)
Maximum : 163.2 (cubic metres per second)
Minimum : 3.1 (cubic metres per second)
Total : 1953 (million cubic metres)

Data availability

Original values : 364
Estimated values (Flag e) : 1
Missing values (Flag m) : 0

Comments :

Shebelli downstream of Sabuun barrage 1986

Daily mean flows (cubic metres per second)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	7.4	5.2	3.7	5.7	148.7	138.1	55.9	89.5	135.3	122.8	76.9	12.7
2	7.4	5.0	3.6	5.3	155.3	138.7	59.2	88.8	134.3	114.9	63.0	12.7
3	7.3	5.0	3.8	5.0	155.5	138.5	64.5	87.8	133.1	113.3	56.2	12.2
4	7.1	5.0	3.9	4.7	139.3	140.9	80.2	83.3	127.8	109.7	63.1	11.1
5	6.9	5.0	3.9	4.5	120.0	143.0	94.4	80.7	127.1	106.2	62.7	10.6
6	6.9	5.0	3.9	4.4	110.0	143.0	103.3	86.5	109.0	101.0	56.2	9.9
7	6.8	4.9	3.9	4.3	128.0	141.8	105.8	96.5	101.4	93.4	55.2	9.3
8	6.7	4.8	3.9	4.1	165.2	142.5	109.3	107.7	94.8	86.5	48.9	8.9
9	6.4	4.7	3.9	3.9	163.3	144.4	115.7	114.4	90.8	80.7	49.8	8.4
10	6.3	4.7	3.9	3.7	150.8	144.6	120.4	117.5	99.2	73.8	47.9	8.4
11	6.1	4.7	3.9	3.6	148.1	142.2	129.6	117.7	109.4	66.7	42.9	8.7
12	6.1	4.7	3.9	3.4	147.1	127.9	127.4	111.4	114.5	65.3	39.1	8.3
13	6.0	4.7	3.8	3.4	146.4	115.9	126.9	104.6	114.7	71.6	35.6	7.9
14	6.0	4.5	3.6	3.4	138.3	111.8	124.0	104.7	111.0	76.5	32.3	7.7
15	6.0	4.4	3.4	3.4	123.5	105.9	115.6	109.3	105.2	81.1	27.9	7.6
16	5.8	4.3	3.4	3.7	108.9	102.9	105.2	109.9	97.9	90.1	26.2	7.5
17	5.7	4.3	3.5	4.7	94.7	101.7	95.5	103.6	88.6	92.7	25.6	7.2
18	5.7	4.2	4.3	5.5	89.2	100.9	87.5	99.4	80.8	88.4	24.0	7.0
19	5.7	4.2	4.6	5.5	92.6	94.8	78.7	106.5	71.9	87.0	22.5	6.8
20	5.7	4.1	4.6	5.8	85.2	88.6	69.9	116.9	68.5	87.6	21.6	6.6
21	5.7	4.1	4.5	62.4	72.5	88.5	65.6	124.8	73.6	83.6	21.1	6.3
22	5.7	4.1	4.4	109.5	68.2	91.0	64.5	130.0	86.7	76.5	20.0	5.8
23	5.7	4.0	4.5	127.8	68.3	86.3	74.1	133.5	93.2	71.2	18.4	5.4
24	5.7	3.9	5.1	135.0	75.1	84.0	85.4	137.2	103.4	66.2	17.2	5.1
25	5.7	3.8	5.3	136.6	91.1	85.0	91.3	139.0	112.6	58.7	16.1	4.7
26	5.6	3.7	5.3	134.1	110.8	80.3	92.9	141.7	128.0	52.8	14.9	4.5
27	5.6	3.7	5.3	138.6	124.9	74.3	93.1	142.3	127.5	58.2	14.5	4.5
28	5.5	3.7	5.2	150.3	130.0	69.2e	93.1	143.0	128.8	94.9	13.9	4.4
29	5.5		5.3	153.3	131.6	64.4e	93.3	143.1	128.8	107.5	13.1	4.4
30	5.4		5.7	147.7	135.3	60.0e	93.9	142.4	127.7	98.2	12.8	4.4
31	5.3		5.7		137.8		91.9	141.8		89.2		4.3
Mean	6.1	4.4	4.3	46.1	121.2	109.7	93.8	114.7	107.5	86.0	34.7	7.5
Maximum	7.4	5.2	5.7	153.3	165.2	144.6	129.6	143.1	135.3	122.8	76.9	12.7
Minimum	5.3	3.7	3.4	3.4	68.2	60.0	55.9	80.7	68.5	52.8	12.8	4.3
Total	16	11	12	120	325	284	251	307	279	230	90	20

(Total flows in million cubic metres per month)

Annual statistics

Mean : 61.7 (cubic metres per second)
Maximum : 165.2 (cubic metres per second)
Minimum : 3.4 (cubic metres per second)
Total : 1944 (million cubic metres)

Data availability

Original values : 362
Estimated values (Flag e) : 3
Missing values (Flag m) : 0

Comments : Successive flood peaks between April and November, but no period of sustained bank-full flow

Shebelli downstream of Sabuun barrage 1987

Daily mean flows (cubic metres per second)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	4.3	4.3	3.1	19.7	101.0	160.2	147.2	34.3	34.1	85.7	117.1	15.2
2	4.3	4.1	3.1	42.6	101.7	161.1	146.6	33.6	36.2	74.0	122.3	15.0
3	4.6	3.9	3.1	44.6	99.5	160.4	134.1	32.7	35.2	69.7	115.4	14.2
4	4.7	3.9	3.1	42.1	97.5	157.0	107.2	28.4	35.7	71.1	99.2	14.0
5	4.6	3.7	3.1	39.4	95.6	154.7	87.9	26.3	35.6	80.2	91.3	13.7
6	4.5	3.7	3.1	37.2	95.5	148.3	72.6	28.8	32.4	99.0	97.6	12.6
7	4.3	3.7	3.1	34.3	113.7	146.7	67.5	34.8	30.1	113.0	103.4	11.7
8	4.1	3.7	3.1	31.2	125.2	147.6	64.0e	33.0	31.3	117.9	101.6	11.2
9	4.0	3.7	2.9	28.3	94.9	148.6	60.8e	33.0	36.5	111.4	95.8	10.9
10	3.9	3.7	2.9	26.7	64.6	147.8	57.6e	33.5	39.1	104.9	101.1	11.0
11	3.9	3.7	2.7	27.1	58.1	147.6	54.7e	32.0	47.2	103.9	110.4	10.8
12	3.8	3.7	2.7	29.2	61.4	148.9	51.9e	32.1	50.3	105.2	107.5	10.4
13	3.8	3.6	2.7	41.0	75.4	146.7	49.2e	32.8	53.0	102.0	95.6	9.9
14	3.8	3.6	2.6	63.2	93.7	143.6	46.7	32.2	60.5	94.7	81.0	9.2
15	3.8	3.5	2.5	71.5	88.0	145.3	46.8	28.4	66.2	85.2	66.7	8.7
16	3.8	3.5	2.4	75.3	81.2	145.0	44.4	27.7	65.2	82.1	52.7	8.3
17	4.8	3.5	2.4	88.1	111.5	143.1	42.2	28.8	69.0	81.7	37.9	8.1
18	4.8	3.5	2.3	106.1	126.7	144.3	42.4	29.2	82.4	87.1	27.4	7.8
19	4.7	3.5	2.2	113.5	129.5	144.2	46.0	27.7	96.7	87.0	23.2	7.6
20	4.6	3.4	2.4	115.9	129.6	144.2	48.2	26.7	94.6	77.1	20.4	7.4
21	4.6	3.3	2.4	119.3	143.2	143.1	47.9	26.0	87.0	67.4	20.0	m
22	4.5	3.3	2.4	122.2	152.6	143.0	46.0	25.2	79.1	66.2	23.1	m
23	4.5	3.3	2.5	126.5	159.2	141.7	42.1	24.2	70.0	87.8	23.6	m
24	4.5	3.3	2.7	128.6	158.8	143.0	40.0	23.2	63.2	104.3	21.7	m
25	4.4	3.2	2.9	128.4	159.7	145.6	39.6	22.6	61.1	105.5	20.1	m
26	4.4	3.1	2.9	125.6	158.5	147.5	41.0	21.9	75.1	103.3	19.3	m
27	4.4	3.1	3.0	125.0	158.2	147.5	42.2	21.1	106.3	96.1	18.4	m
28	4.4	3.1	3.1	121.4	162.0	146.2	42.1	20.9	111.7	89.3	17.9	m
29	4.4		3.0	112.1	162.2	148.0	39.9	20.9	107.3	81.9	16.5	m
30	4.3		3.0	105.0	162.5	148.5	37.5	21.9	95.8	78.8	15.6	m
31	4.3		3.0		161.3		35.4	26.2		86.8		m
Mean	4.3	3.5	2.8	76.4	118.8	148.0	60.4	28.1	62.9	90.3	62.1	-
Maximum	4.8	4.3	3.1	128.6	162.5	161.1	147.2	34.8	111.7	117.9	122.3	-
Minimum	3.8	3.1	2.2	19.7	58.1	141.7	35.4	20.9	30.1	66.2	15.6	-
Total	12	9	7	198	318	384	162	75	163	242	161	-

(Total flows in million cubic metres per month)

Annual statistics

Insufficient data for annual statistics

Data availability

Original values	:	348
Estimated values (Flag e)	:	6
Missing values (Flag m)	:	11

Comments : An unusually late Gu flood, and a small Der flood

Shebelli downstream of Sabuun barrage 1988

Daily mean flows (cubic metres per second)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	m	m	m	m	m	m	m	m	m	m	m	m
2	m	m	m	m	m	m	m	m	m	m	m	m
3	m	m	m	m	m	m	m	m	m	m	m	m
4	m	m	m	m	m	m	m	m	m	m	m	m
5	m	m	m	m	m	m	m	m	m	m	m	m
6	m	m	m	m	m	m	m	m	m	m	m	m
7	m	m	m	m	m	m	m	m	m	m	m	m
8	m	m	m	m	m	m	m	m	m	m	m	m
9	m	m	m	m	m	m	m	m	m	m	m	m
10	m	m	m	m	m	m	m	m	m	m	m	m
11	m	m	m	m	m	m	m	m	m	m	m	m
12	m	m	m	m	m	m	m	m	m	m	m	m
13	m	m	m	m	m	m	m	m	m	m	m	m
14	m	m	m	m	m	m	m	m	m	m	m	m
15	m	m	m	m	m	m	m	m	m	m	m	m
16	m	m	m	m	m	m	m	m	m	m	m	m
17	m	m	m	m	m	m	m	m	m	m	m	m
18	m	m	m	m	m	m	m	m	m	m	m	m
19	m	m	m	m	m	m	m	m	m	m	m	m
20	m	m	m	m	m	m	m	m	m	m	m	m
21	m	m	m	m	m	m	m	m	m	m	m	m
22	m	m	m	m	m	m	m	m	m	m	m	m
23	m	m	m	m	m	m	m	m	m	m	m	m
24	m	m	m	m	m	m	m	m	m	m	m	m
25	m	m	m	m	m	m	m	m	m	m	m	m
26	m	m	m	m	m	m	m	m	m	m	m	m
27	m	m	m	m	m	m	m	m	m	m	m	m
28	m	m	m	m	m	m	m	m	m	m	m	m
29	m	m	m	m	m	m	m	m	m	m	m	m
30	m		m	m	m	m	m	m	m	m	m	m
31	m		m		m		m	m		m		m
Mean	-	-	-	-	-	-	-	-	-	-	-	-
Maximum	-	-	-	-	-	-	-	-	-	-	-	-
Minimum	-	-	-	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	-	-	-	-	-	-	-	-

(Total flows in million cubic metres per month)

Annual statistics

Insufficient data for annual statistics

Data availability

Original values	:	0
Estimated values (Flag e)	:	0
Missing values (Flag m)	:	366

Comments :

Shebelli downstream of Sabuun barrage 1989

Daily mean flows (cubic metres per second)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	16.6	12.1	16.4	12.3	143.1	122.6	m	m	m	m	m	m
2	16.3	12.1	16.1	12.3	144.1	110.1	m	m	m	m	m	m
3	16.3	12.1	15.9	12.3	144.2	96.8	m	m	m	m	m	m
4	16.3	12.1	15.6	27.7	140.8	85.8	m	m	m	m	m	m
5	15.9	12.1	14.5	68.7	142.7	79.6	m	m	m	m	m	m
6	15.8	12.1	13.8	80.4	141.7	71.1	m	m	m	m	m	m
7	15.8	11.9	13.7	104.4	141.7	65.5	m	m	m	m	m	m
8	15.4	11.7	13.7	112.5	143.0	66.1	m	m	m	m	m	m
9	15.0	11.7	13.7	99.1	143.1	66.8	m	m	m	m	m	m
10	15.0	11.7	13.7	81.9	143.8	66.7	m	m	m	m	m	m
11	15.0	11.5	13.5	82.6	144.4	62.7	m	m	m	m	m	m
12	15.0	11.4	13.5	102.3	143.8	62.0	m	m	m	m	m	m
13	15.0	11.3	13.3	124.1	143.2	61.1	m	m	m	m	m	m
14	14.8	11.0	13.3	136.9	143.7	59.9	m	m	m	m	m	m
15	14.4	11.3	13.3	143.8	143.2	59.3	m	m	m	m	m	m
16	13.8	11.4	13.1	143.6	143.7	58.9	m	m	m	m	m	m
17	13.7	11.4	13.1	143.8	143.1	58.1	m	m	m	m	m	m
18	13.7	11.4	13.1	142.5	143.1	58.0	m	m	m	m	m	m
19	13.3	11.6	12.9	136.3	143.8	56.0	m	m	m	m	m	m
20	13.3	12.2	12.9	134.5	144.4	53.4	m	m	m	m	m	m
21	13.3	12.4	12.9	134.6	143.8	52.7	m	m	m	m	m	m
22	12.9	13.0	12.7	136.7	143.2	51.9	m	m	m	m	m	m
23	12.5	13.1	12.7	139.7	143.8	51.4	m	m	m	m	m	m
24	12.5	13.5	12.7	138.5	144.4	50.6	m	m	m	m	m	m
25	12.9	13.5	12.3	134.8	143.8	49.8	m	m	m	m	m	m
26	12.9	13.7	12.3	134.3	143.1	49.3	m	m	m	m	m	m
27	12.5	14.3	12.3	133.0	142.3	48.2	m	m	m	m	m	m
28	12.5	15.0	12.3	131.9	141.4	47.7	m	m	m	m	m	m
29	12.3		12.3	134.8	138.0	46.9	m	m	m	m	m	m
30	12.1		12.3	141.4	135.4	46.0	m	m	m	m	m	m
31	12.1		12.3		133.8		m	m		m		m
Mean	14.2	12.2	13.4	108.7	142.5	63.8	-	-	-	-	-	-
Maximum	16.6	15.0	16.4	143.8	144.4	122.6	-	-	-	-	-	-
Minimum	12.1	11.0	12.3	12.3	133.8	46.0	-	-	-	-	-	-
Total	38	30	36	282	382	165	-	-	-	-	-	-

(Total flows in million cubic metres per month)

Annual statistics

Insufficient data for annual statistics

Data availability

Original values	:	181
Estimated values (Flag e)	:	0
Missing values (Flag m)	:	184

Comments : No data from mid June

SHEBELLI DOWNSTREAM OF OUTLET CANAL

1980 - 1989

Shebelli downstream of outlet canal 1980

Daily mean flows (cubic metres per second)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	m	m	m	m	6.9	31.0	m	26.7	61.4	49.0	35.5	m
2	m	m	m	m	4.7	28.3	m	27.5	65.5	49.3	31.0	m
3	m	m	m	m	3.8	23.6	m	28.1	75.7	47.7	27.9	m
4	m	m	m	m	3.8	19.4	m	27.6	80.6	44.8	25.5	m
5	m	m	m	m	5.1	16.9	m	34.4	82.5	41.9	24.4	m
6	m	m	m	m	4.9	14.4	m	m	80.5	38.9	23.7	m
7	m	m	m	m	5.7	12.0	m	m	79.9	36.6	23.1	m
8	m	m	m	m	16.3	10.7	m	m	76.1	35.5	22.9	m
9	m	m	m	m	35.5	7.9	m	m	74.0	38.5	21.0	m
10	m	m	m	m	m	6.2	m	m	67.4	39.4	19.6	m
11	m	m	m	m	m	4.8	m	m	62.1	40.5	18.9	m
12	m	m	m	m	m	3.8	m	m	55.5	48.1	18.7	m
13	m	m	m	m	m	3.1	m	m	50.0	54.1	18.6	m
14	m	m	m	m	m	4.8	m	m	45.9	53.3	18.2	m
15	m	m	m	m	m	13.3	m	m	40.2	49.9	16.8	m
16	m	m	m	m	m	18.2	m	m	39.4	47.0	15.5	m
17	m	m	m	m	m	15.6	m	m	40.2	44.9	m	m
18	m	m	m	m	m	15.5	m	m	45.1	43.3	m	m
19	m	m	m	m	m	16.0	m	m	58.6	45.8	m	m
20	m	m	m	m	m	16.0	m	m	67.0	53.1	m	m
21	m	m	m	m	m	16.1	15.7	m	77.7	54.6	m	m
22	m	m	m	m	m	15.8	20.9	m	81.0	54.1	m	m
23	m	m	m	m	m	15.4	24.8	59.9	79.1	52.1	m	m
24	m	m	m	m	m	12.8	27.7	52.7	76.2	49.9	m	m
25	m	m	m	m	m	10.3	31.4	46.7	74.7	47.2	m	m
26	m	m	m	m	m	10.3	32.0	42.0	67.0	42.5	m	m
27	m	m	m	m	m	10.3	29.1	38.1	59.4	40.7	m	m
28	m	m	m	m	m	10.3	28.2	39.5	54.2	39.2	m	m
29	m	m	m	m	m	10.3	26.6	54.5	48.2	37.0	m	m
30	m		m	m	32.2	10.3	25.7	63.1	46.2	39.3	m	m
31	m		m		30.3		25.2	63.3		41.4		m
Mean	-	-	-	-	-	13.4	-	-	63.7	45.1	-	-
Maximum	-	-	-	-	-	31.0	-	-	82.5	54.6	-	-
Minimum	-	-	-	-	-	3.1	-	-	39.4	35.5	-	-
Total	-	-	-	-	-	35	-	-	165	121	-	-

(Total flows in million cubic metres per month)

Annual statistics

Insufficient data for annual statistics

Data availability

Original values	:	143
Estimated values (Flag e)	:	0
Missing values (Flag m)	:	223

Comments : A low flow year on the Shebelli. First year of operations at the reservoir so releases had little influence on flows in the Shebelli

Shebelli downstream of outlet canal 1981

Daily mean flows (cubic metres per second)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	m	m	m	93.9	108.1	112.0	42.9	42.3	112.3	108.3	103.5	27.2
2	m	m	m	94.7	108.6	109.3	42.5	43.3	112.8	108.3	98.6	25.8
3	m	m	m	94.9	108.7	102.7	41.6	42.6	113.4	108.3	92.7	24.8
4	m	m	m	93.5	108.9	97.1	40.8	42.8	112.1	108.3	87.9	23.8
5	m	m	m	93.2	110.2	93.8	39.9	47.7	110.4	108.3	83.7	22.8
6	m	m	m	91.5	111.0	89.6	39.2	50.2	110.1	107.4	79.4	22.1
7	m	m	m	90.5	111.1	84.8	38.4	50.0	110.5	107.8	76.7	21.9
8	m	m	m	90.0	111.4	80.0	37.7	49.5	109.9	108.5	73.3	21.6
9	m	m	m	90.9	111.4	77.3	36.8	48.1	109.4	109.0	69.7	20.9
10	m	m	m	93.0	111.4	73.7	36.4	48.2	109.4	109.2	63.4	20.1
11	m	m	m	96.0	111.4	68.5	36.2	55.4	109.4	109.4	61.3	19.6
12	m	m	m	98.3	111.4	65.4	35.7	68.7	109.4	109.7	64.7	19.1
13	m	m	m	99.1	111.4	61.6	35.2	77.8	109.4	110.4	72.0	17.9
14	m	m	m	100.1	111.4	59.6	34.2	91.6	109.3	110.2	77.9	17.3
15	m	m	m	100.9	111.4	57.2	33.2	95.8	109.0	109.5	75.0	17.1
16	m	m	m	100.9	111.4	54.6	32.6	98.0	108.9e	108.8	69.7	16.6
17	m	m	m	100.3	111.4	51.2	31.9	99.0	108.7e	109.0	60.9	16.1
18	m	m	m	101.6	110.9	48.1	31.5	103.1	108.5e	109.7	53.8	16.1
19	m	m	m	101.6	109.9	46.1	30.9	108.1	108.4e	109.7	48.4	16.1
20	m	m	m	102.1	108.7	44.3	30.4	110.9	108.2e	109.6	44.9	16.0
21	m	m	m	103.5	107.2	45.1	29.8	109.7	108.0e	110.2	42.5	15.1
22	m	m	m	106.4	106.4	44.7	29.7	107.4	107.8e	110.7	39.6	16.3
23	m	m	42.8	107.7	106.3	42.9	29.4	105.6	107.7e	110.4	38.0	19.9
24	m	m	80.9	108.3	106.3	41.9	29.1	104.0	107.5e	110.2	36.7	19.3
25	m	m	94.8	108.3	106.3	40.6	28.6	102.7	107.3e	109.4	35.4	19.0
26	m	m	100.7	107.1	109.5	39.4	28.4	103.7	107.2e	108.5	34.2	18.9
27	m	m	102.7	107.0	111.9	39.2	28.5	105.6	107.0	107.4	32.7	18.3
28	m	m	103.2	107.0	112.9	41.7	30.6	106.9	107.0	107.7	31.0	18.2
29	m		104.1	107.4	113.5	40.9	33.3	108.7	107.7	108.7	29.6	18.1
30	m		101.6	108.0	113.8	40.6	36.0	111.0	108.3	108.5	28.3	18.1
31	m		97.3		114.0		39.0	111.4		107.2		18.0
Mean	-	-	-	99.9	110.3	63.1	34.5	82.2	109.2	109.0	60.2	19.4
Maximum	-	-	-	108.3	114.0	112.0	42.9	111.4	113.4	110.7	103.5	27.2
Minimum	-	-	-	90.0	106.3	39.2	28.4	42.3	107.0	107.2	28.3	15.1
Total	-	-	-	259	295	164	92	220	283	292	156	52

(Total flows in million cubic metres per month)

Annual statistics

Insufficient data for annual statistics

Data availability

Original values	:	273
Estimated values (Flag e)	:	11
Missing values (Flag m)	:	81

Comments : River dry until March followed by prolonged Gu and Der seasons

Shebelli downstream of outlet canal 1982

Daily mean flows (cubic metres per second)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	17.9	m	m	m	105.8	118.1	42.1	55.1	117.0	92.7	115.7	115.4
2	17.8	m	m	m	108.0	118.7	41.5	55.4	117.0	88.1	115.9	111.7
3	17.3	m	m	m	109.9	119.0	39.8	56.6	115.9	82.9	116.5	109.8
4	16.8	m	m	m	109.7	119.1	37.6	59.4	115.4	78.4	117.3	111.2
5	16.6	m	m	m	107.9	119.1	36.3	61.9	114.9	74.7	117.7	115.5
6	16.0	m	m	m	106.3	118.8	35.5	63.5	114.5	71.0	118.0	118.3
7	15.1	m	m	m	104.9	117.7	34.7	65.1	113.8	69.5	117.5	118.3
8	m	m	m	m	102.5	116.8	34.1	67.2	113.2	70.3	117.0	112.9
9	m	m	m	m	98.6	116.0	33.8	69.2	113.0	76.7	116.6	102.1
10	m	m	m	m	98.0	117.1	33.8	70.7	112.8	90.7	116.3	100.1
11	m	m	m	m	98.7	115.9	33.8	74.5	112.5	101.5	116.3	104.8
12	m	m	m	m	101.7	113.0	33.7	81.9	111.9	101.4	116.6	106.1
13	m	m	m	m	105.3	106.5	33.0	94.1	111.2	95.6	117.1	107.5
14	m	m	m	m	104.9	97.9	32.3	100.8	110.1	92.7	117.7	102.3
15	m	m	m	15.4	99.3	89.4	31.5	106.6	109.3	98.6	118.2	94.6
16	m	m	m	22.6	86.7	85.0	32.6	110.1	108.0	103.5	118.7	88.1
17	m	m	m	33.4	81.3	83.4	35.0	111.0	106.7	104.5	118.7	81.9
18	m	m	m	56.9	85.5	81.4	38.5	109.0	104.7	105.3	119.0	76.0
19	m	m	m	71.0	94.8	78.3	44.6	105.0	102.8	107.2	118.8	71.4
20	m	m	m	76.5	104.4	73.7	47.9	98.4	99.3	108.8	118.8	66.8
21	m	m	m	79.1	108.2	69.3	50.4	91.1	95.4	108.0	118.4	63.5
22	m	m	m	86.8	111.4	65.5	53.1	86.6	93.8	107.1	118.5	60.7
23	m	m	m	95.6	112.7	61.9	54.5	87.9	93.5	107.6	118.7	58.6
24	m	m	m	101.0	112.8	58.2	55.7	97.3	95.7	108.2	118.8	56.8
25	m	m	m	102.0	112.8	54.8	59.1	108.6	99.9	109.0	120.1	54.5
26	m	m	m	102.2	113.1	50.8	62.7	114.0	101.5	109.2	120.4	52.0
27	m	m	m	103.5	113.1	47.2	63.8	116.0	101.6	110.6	120.5	52.2
28	m	m	m	102.8	113.4	44.9	62.2	116.6	99.3e	112.5	120.2	64.3
29	m		m	102.6	114.4	43.7	59.2	116.6	97.1e	112.9	120.0	94.8
30	m		m	104.8	115.7	m	55.5	116.3	94.9e	114.2	118.4	106.1
31	m		m		116.8		55.2	116.9		115.2		107.5
Mean	15.5	14.9	15.0	48.9	105.1	89.7	44.0	89.8	106.6	97.7	118.1	89.9
Maximum	-	-	-	-	116.8	-	63.8	116.9	117.0	115.2	120.5	118.3
Minimum	-	-	-	-	81.3	-	31.5	55.1	93.5	69.5	115.7	52.0
Total	-	-	-	-	282	-	118	240	276	262	306	241

(Total flows in million cubic metres per month)

Annual statistics

Insufficient data for annual statistics

Data availability

Original values	:	264
Estimated values (Flag e)	:	3
Missing values (Flag m)	:	98

Comments : An extended Der season

Shebelli downstream of outlet canal 1983

Daily mean flows (cubic metres per second)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	102.7	38.1	38.0	20.2	94.9	111.3	112.4	70.0	m	122.2	120.1	102.2
2	95.7	37.5	36.7	20.1	107.3	112.9	110.8	88.9	m	120.7	120.1	100.1
3	88.6	37.0	36.1	19.8	110.3	115.3	107.1	102.4	m	120.5	120.5	96.8
4	81.5	36.2	35.3	19.5	110.4	116.3	100.8	110.6	m	120.4	120.7	93.0
5	76.5	35.3	34.7	19.3	110.4	118.2	91.8	114.4	m	120.1	121.5	89.9
6	71.6	34.5	34.5	18.9	110.5	119.8	86.1	119.2	m	119.8	122.0	83.0
7	66.5	33.7	33.7	18.7	111.9	121.2	81.8	122.2	m	120.1	122.2	75.2
8	62.2	33.1	32.3	18.5	113.1	122.7	78.1	124.5	m	119.8	121.7	72.4
9	58.7	32.6	31.7	18.2	114.4	123.3	75.6	125.1	m	119.4	121.2	71.2
10	56.2	32.3	31.1	18.0	116.3	124.2	74.1	125.1	m	119.2	120.8	70.9
11	52.4	31.9	30.6	17.7	116.6	124.9	80.6	m	m	119.1	120.5	69.8
12	49.9	31.6	31.6	17.2	115.7	m	93.0	m	m	119.1	120.1	67.4
13	47.7	32.3	33.0	16.8	114.7	m	100.1	m	m	119.0	119.8	64.4
14	45.8	34.6	34.2	16.5	113.8	m	96.6	m	m	118.7	119.4	61.6
15	43.9	34.7	34.0	16.3	111.2	m	90.0	m	m	118.7	118.8	60.5
16	42.9	35.1	33.9	16.1	104.1	m	83.8	m	m	118.7	118.3	58.0
17	45.0	35.1	33.3	15.8	96.8	m	81.2	m	m	118.7	117.0	56.7
18	44.1	35.2	31.7	15.6	90.0	m	74.9	m	m	118.7	115.5	55.3
19	42.4	38.7	29.0	16.3	84.8	124.9	68.9	m	m	118.8	113.1	53.5
20	40.8	46.2	27.7	19.9	77.4	124.0	66.4	m	m	119.4	110.0	51.6
21	39.7	51.1	26.6	22.6	73.2	123.5	62.6	m	m	120.4	106.9	50.0
22	38.5	51.8	25.9	39.8	76.5	123.6	60.5	m	m	121.0	108.2	48.3
23	37.7	50.6	24.8	60.2	84.1	123.3	59.5	m	m	121.5	110.5	46.4
24	36.9	47.9	24.0	63.0	88.0	123.5	58.6	m	m	121.5	111.1	44.5
25	35.9	45.6	23.3	63.3	85.2	123.6	57.8	m	m	120.8	111.6	42.6
26	34.8	42.6	23.0	61.6	85.8	122.5	57.8	m	124.9	120.5	111.8	42.1
27	34.0	40.8	22.5	60.1	91.9	122.0	57.4	m	124.5	120.4	111.8	41.9
28	33.6	39.3	22.3	58.1	93.9	120.6	57.0	m	124.0	120.1	109.3e	41.8
29	35.6		21.8	59.0	97.8	118.5	56.5	m	123.3	120.1	106.9e	41.1
30	38.2		21.3e	76.5	104.9	115.7	55.2	m	123.3	120.1	104.5e	40.3
31	38.5		20.7e		108.4		59.4	m		120.1		39.4
Mean	52.2	38.4	29.7	30.8	100.5	-	77.3	-	-	119.9	115.9	62.3
Maximum	102.7	51.8	38.0	76.5	116.6	-	112.4	-	-	122.2	122.2	102.2
Minimum	33.6	31.6	20.7	15.6	73.2	-	55.2	-	-	118.7	104.5	39.4
Total	140	93	79	80	269	-	207	-	-	321	300	167

(Total flows in million cubic metres per month)

Annual statistics

Insufficient data for annual statistics

Data availability

Original values	:	307
Estimated values (Flag e)	:	5
Missing values (Flag m)	:	53

Comments : An extended Der season

Shebelli downstream of outlet canal 1984

Daily mean flows (cubic metres per second)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	37.9	27.1	25.1	20.7	17.4	78.1	35.4	50.0	104.7	111.4	44.7	19.3
2	37.3	26.7	24.9	20.2	18.0	70.9	34.3	74.3	97.0	111.9	42.9	18.9
3	37.0	26.3	24.6	19.6	19.0	65.9	34.3	89.3	89.5	112.1	40.5	18.5
4	36.6	25.9	24.2	19.4	19.5	62.5	34.2	97.1	81.8	112.6	37.0	18.1
5	36.4	25.6	23.6	18.9	20.0	61.9	34.1	97.7	75.9	112.8	34.9	17.6
6	36.3	25.3	23.3	18.5	20.4	76.9	35.7	95.2	68.1	113.1	33.5	17.2
7	36.3	25.1	23.0	18.2	20.5	88.1	57.8	92.5	62.5	113.4	32.3	16.0
8	36.9	24.7	22.6	17.8	20.0	91.2	78.9	90.4	63.1	112.9	31.3	15.4
9	36.4	24.5	22.4	17.5	17.9	88.7	86.6	89.0	65.4	111.9	30.3	15.7
10	35.9	24.4	22.1	17.4	16.7	85.1	85.3	90.6	73.4	108.4	28.7	15.6
11	35.3	24.1	22.3	17.2	16.3	83.3	82.5	96.4	89.5	105.6	28.5	15.3
12	34.8	23.9	22.3	16.9	15.5	82.6	76.9	100.0	99.3	102.3	28.5	15.1
13	34.5	23.6	22.3	16.5	15.1	80.8	72.1	101.0	99.5	98.7	28.5	m
14	34.2	23.3	22.1	15.9	15.1	77.6	68.7	102.4	95.7	95.3	28.1	m
15	33.9	26.2	22.1	15.3	22.1	77.1	65.3	105.6	96.9	89.9	27.8	m
16	33.5	28.2	22.1	m	33.6	80.0	61.9	110.0	100.1	84.1	27.1	m
17	33.0	27.7	22.0	m	37.1	82.9	60.8	113.0	102.5	78.7	26.0	m
18	32.5	27.2	22.2	m	25.7	80.1	59.3	113.8	104.3	76.1	24.8	m
19	32.2	25.3	22.5	15.4	16.9	70.8	57.7	113.0	106.0	85.0	23.2	m
20	31.9	26.7	22.3	16.3	m	62.7	55.7	108.3	105.9	100.2	22.3	m
21	31.5	27.6	22.7	17.2	m	58.0	55.5	109.2	106.0	104.9	21.9	m
22	31.0	27.2	23.0	17.1	m	56.2	54.2	107.6	106.3	100.1	21.9	m
23	30.5	27.0	22.9	15.6	m	52.4	51.6	105.3	106.8	89.4	21.8	m
24	30.1	26.9	22.9	15.1	20.4	48.9	47.7	103.8	107.4	77.1	21.7	m
25	29.7	26.6	22.5	m	61.7	45.7	44.4	105.5	108.7	68.6	21.4	m
26	29.5	26.6	22.3	m	87.4	43.9	42.0	109.3	110.2	66.1	21.2	m
27	29.1	26.1	22.1	15.4	100.0	42.1	40.3	112.1	111.0	62.5	20.9	m
28	28.7	25.7	22.0	16.9	100.2	40.9	37.6	114.9	111.1	58.1	20.5	m
29	28.2	25.3	21.6	18.4	98.4	39.0	36.7	116.2	111.1	53.6	20.1	m
30	27.8		21.5	17.5	95.0	37.5	36.0	114.0	111.4	49.3	19.5	m
31	27.4		21.2		87.9		36.1	109.8		46.3		m
Mean	33.1	25.9	22.7	17.0	38.4	67.1	53.5	101.2	95.7	90.7	27.7	15.8
Maximum	37.9	28.2	25.1	-	-	91.2	86.6	116.2	111.4	113.4	44.7	-
Minimum	27.4	23.3	21.2	-	-	37.5	34.1	50.0	62.5	46.3	19.5	-
Total	89	65	61	-	-	174	143	271	248	243	72	-

(Total flows in million cubic metres per month)

Annual statistics

Insufficient data for annual statistics

Data availability

Original values	:	338
Estimated values (Flag e)	:	0
Missing values (Flag m)	:	28

Comments : Easily the latest ever start to the Gu season and a low-flow year overall

Shebelli downstream of outlet canal 1985

Daily mean flows (cubic metres per second)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	m	m	m	m	86.5	93.7	60.7	76.9	121.9	91.7	48.7	25.3
2	m	m	m	m	87.3	93.7	61.5	78.4	122.4	92.8	48.7	24.5
3	m	m	m	m	88.0	93.4	61.6	80.7	122.6	93.5	47.5	24.1
4	m	m	m	m	88.9	93.1	59.7	82.7	121.0	95.1	46.0	23.3
5	m	m	m	m	89.3	93.1	59.3	84.1	116.0	97.2	52.1	22.2
6	m	m	m	15.6	89.7	92.6	58.9	86.4	112.5	97.9	58.1	20.6
7	m	m	m	31.3	90.2	91.7	57.9	91.5	110.8	97.1	61.3	19.0
8	m	m	m	66.0	90.4	91.2	55.9	99.7	109.7	94.9	56.2	17.9
9	m	m	m	65.8	90.5	91.0	54.4	111.0	108.4	93.6	49.2	17.3
10	m	m	m	62.0	89.9	90.5	54.0	113.4	106.0	91.4	43.7	16.7
11	m	m	m	57.5	89.8	90.2	53.6	118.1	104.1	87.8	41.7	16.4
12	m	m	m	53.1	89.1	90.2	53.0	121.1	104.8	84.6	40.4	16.1
13	m	m	m	48.6	88.1	89.9	52.7	122.7	106.6	83.4	39.5	16.0
14	m	m	m	43.7	87.4	89.7	52.0	122.9	109.9	78.6	39.0	15.9
15	m	m	m	38.8	87.2	88.9	51.8	123.9	110.2	73.9	38.8	15.7
16	m	m	m	36.1	87.2	86.8	51.8	125.1	107.2	68.5	38.6	15.5
17	m	m	m	40.0	87.6	81.7	51.5	125.1	104.3	63.9	37.8	15.1
18	m	m	m	54.3	89.2	79.4	51.1	125.1	101.7	64.0	37.4	m
19	m	m	m	71.2	90.2	77.4	50.9	125.1	100.3	66.4	37.2	m
20	m	m	m	85.2	90.5	75.4	50.8	125.1	100.3	72.0	34.8	m
21	m	m	m	89.7	91.0	73.9	50.5	126.0	100.3	76.3	32.6	m
22	m	m	m	90.7	91.2	73.0	50.2	127.8	99.7	78.5	30.6	m
23	m	m	m	90.3	92.3	72.5	49.8	128.7	97.1	76.9	28.9	m
24	m	m	m	89.3	92.8	71.8	50.8	128.6	95.8	75.3	28.6	m
25	m	m	m	89.0	93.0	70.7	51.3	127.0	96.3	72.9	28.3	m
26	m	m	m	88.8	93.4	69.4	53.8	126.8	96.0	76.8	27.8	m
27	m	m	m	88.6	93.6	68.0	60.4	125.2	94.6	79.8	27.4	m
28	m	m	m	88.0	93.7	66.4	67.0	124.9	93.4	72.5	26.8	m
29	m		m	87.0	93.7	63.8	72.6	124.6	92.3	61.2	25.8	m
30	m		m	85.6	93.7	60.0	75.3	122.5	91.4	52.7	25.0	m
31	m		m		93.7		76.8	121.6		48.9		m
Mean	15.1	15.1	15.1	57.7	90.3	82.1	56.8	113.6	105.2	79.4	39.3	17.2
Maximum	-	-	-	-	93.7	93.7	76.8	128.7	122.6	97.9	61.3	-
Minimum	-	-	-	-	86.5	60.0	49.8	76.9	91.4	48.9	25.0	-
Total	-	-	-	-	242	213	152	304	273	213	102	-

(Total flows in million cubic metres per month)

Annual statistics

Insufficient data for annual statistics

Data availability

Original values	:	256
Estimated values (Flag e)	:	0
Missing values (Flag m)	:	109

Comments :

Shebelli downstream of outlet canal 1986

Daily mean flows (cubic metres per second)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	m	m	m	m	m	m	77.7	89.0	m	110.0	82.6	37.4
2	m	m	m	m	m	m	76.9	89.6	m	109.4	80.8	35.0
3	m	m	m	m	m	m	77.4	89.3	m	109.1	79.1	32.7
4	m	m	m	m	m	m	78.4	88.6	m	109.3	77.5	29.6
5	m	m	m	m	m	m	79.9	87.7	m	108.0	76.1	27.0
6	m	m	m	m	125.0	m	84.5	87.1	121.5	107.0	74.4	24.6
7	m	m	m	m	122.7	m	95.7	87.7	119.4	105.6	73.5	22.4
8	m	m	m	m	124.9	m	106.8	88.6	117.0	103.4	72.3	20.2
9	m	m	m	m	m	m	114.9	95.2	115.0	101.1	71.4	18.6
10	m	m	m	m	m	m	120.3	104.9	115.6	100.6	70.0	16.7
11	m	m	m	m	m	m	123.8	117.0	117.3	98.8	68.4	15.3
12	m	m	m	m	m	m	125.0	121.3	120.4	97.0	66.5	15.1
13	m	m	m	m	m	m	125.1	120.2	117.0	94.6	65.2	15.4
14	m	m	m	m	m	m	125.1	117.5	113.6	92.1	63.6	21.4
15	m	m	m	m	m	m	124.7	115.3	110.2	90.6	62.2	22.8
16	m	m	m	m	122.0	115.5	124.2	115.3	106.8	90.1	61.1	22.9
17	m	m	m	m	119.0	110.5	122.0	116.5	103.5	92.7	60.0	22.7
18	m	m	m	m	115.6	107.9	119.0	116.4	101.0	93.3	58.6	22.7
19	m	m	m	m	112.8	109.8	115.3	117.2	99.4	91.8	56.7	22.5
20	m	m	m	15.1	110.1	110.4	110.3	117.8	98.6	90.6	54.2	22.5
21	m	m	m	22.3	107.9	106.1	105.1	120.4	98.5	90.2	52.3	22.4
22	m	m	m	72.0	106.9	101.1	98.9	121.9	99.5	88.7	50.2	22.3
23	m	m	m	105.3	104.5	98.2	87.5	122.3	101.3	86.7	48.5	22.3
24	m	m	m	114.1	104.1	95.2	81.3	124.0	103.3	85.1	46.3	22.3
25	m	m	m	118.3	103.5	91.4	79.0	124.6	105.3	83.6	44.6	22.3
26	m	m	m	123.4	105.4	91.1	79.1	m	106.9	82.0	43.2	22.3
27	m	m	m	125.1	111.9	88.8	81.1	m	108.0	80.9	42.3	22.1
28	m	m	m	125.1	116.3	84.0	85.7	m	109.0	81.5	41.1	22.1
29	m		m	m	122.0	78.9	87.3	m	109.4	84.3	39.8	22.1
30	m		m	m	125.0	78.2	88.1	m	109.8	85.8	38.6	22.1
31	m		m		125.1		88.8	m		84.4		22.1
Mean	15.0	15.1	15.1	39.5	-	-	99.6	-	109.1	94.5	60.7	23.0
Maximum	-	-	-	-	-	-	125.1	-	-	110.0	82.6	37.4
Minimum	-	-	-	-	-	-	76.9	-	-	80.9	38.6	15.1
Total	-	-	-	-	-	-	267	-	-	253	157	62

(Total flows in million cubic metres per month)

Annual statistics

Insufficient data for annual statistics

Data availability

Original values	:	216
Estimated values (Flag e)	:	0
Missing values (Flag m)	:	149

Comments : Successive flood peaks between April and November, but no period of sustained bank-full flow

Shebelli downstream of outlet canal 1987

Daily mean flows (cubic metres per second)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	22.1	15.1	13.7	14.7	98.8	m	m	42.6	33.9	110.0	101.7	m
2	22.0	15.1	13.5	30.5	97.2	m	m	42.4	34.8	101.6	106.4	m
3	21.9	15.1	13.4	50.0	98.4	m	m	41.9	36.6	87.9	108.5	m
4	21.7	15.1	13.1	52.9	97.2	m	123.5	41.2	38.7	82.5	107.3	m
5	21.5	15.1	12.9	51.0	94.8	m	112.3	40.8	40.0	81.6	104.7	m
6	21.2	15.1	12.7	47.1	93.8	m	98.0	40.2	40.6	86.5	102.2	m
7	20.8	15.1	12.5	43.4	96.8	m	85.5	40.0	40.2	96.8	101.2	m
8	20.5	15.1	12.1	39.4	106.3	m	78.5	39.7	40.0	107.1	102.3	m
9	20.1	15.1	11.8	36.3	106.3	m	73.5	39.2	39.8	113.8	103.5	m
10	19.7	15.1	11.5	34.2	94.1	m	70.2	39.1	41.3	116.6	103.3	m
11	19.3	15.1	11.2	32.4	85.5	m	68.1	39.2	44.1	115.1	103.8	m
12	18.9	15.0	11.0	32.4	81.6	m	64.6	39.4	49.6	115.0	108.1	m
13	18.6	14.9	10.9	35.8	82.8	m	60.7	39.3	55.9	115.1	105.1	m
14	18.3	14.8	10.9	43.8	85.7	m	57.9	39.5	64.4	113.0	101.6	m
15	18.9	14.6	10.9	64.0	90.4	m	54.3	39.4	72.2	110.8	98.5	m
16	18.6	14.5	10.9	72.1	93.0	m	51.2	39.1	73.3	109.4	87.9	m
17	18.1	14.4	10.9	75.5	99.6	m	49.3	38.8	77.8	104.5	80.9	m
18	17.6	14.4	10.9	84.2	108.0	m	48.1	38.7	86.8	103.0	74.4	m
19	17.4	14.3	10.9	93.5	115.3	m	46.9	38.5	87.0	103.5	70.5	m
20	17.1	14.2	10.9	96.9	122.9	m	46.5	38.3	90.6	102.3	67.7	m
21	16.7	14.2	10.9	100.1	125.0	m	48.1	38.0	96.7	100.1	65.2	m
22	16.5	14.0	10.9	101.7	m	m	48.8	37.8	94.4	96.8	62.2	m
23	16.3	14.0	10.9	103.6	m	m	49.0	37.6	91.8	93.1	60.5	m
24	16.1	14.0	10.9	104.6	m	m	47.3	37.1	88.9	94.0	55.3	m
25	15.9	13.9	10.9	105.2	m	m	45.7	36.7	85.5	103.5	48.7	m
26	15.8	13.9	10.9	104.5	m	m	44.7	36.4	83.9	111.8	42.4	m
27	15.7	13.8	10.9	103.8	m	m	42.9	35.9	90.5	110.8	35.3	m
28	15.6	13.6	10.9	103.8	m	m	42.7	35.2	104.1	109.0	30.1	m
29	15.4		10.9	103.6	m	m	42.7	34.7	115.0	103.3	26.4	m
30	15.3		10.9	100.9	m	m	42.9	33.9	113.3	98.8	24.2	m
31	15.2		11.2		m		42.7	33.4		97.4		m
Mean	18.4	14.6	11.5	68.7	-	-	60.2	38.5	68.4	103.0	79.7	-
Maximum	22.1	15.1	13.7	105.2	-	-	-	42.6	115.0	116.6	108.5	-
Minimum	15.2	13.6	10.9	14.7	-	-	-	33.4	33.9	81.6	24.2	-
Total	49	35	31	178	-	-	-	103	177	276	206	-

(Total flows in million cubic metres per month)

Annual statistics

Insufficient data for annual statistics

Data availability

Original values	:	291
Estimated values (Flag e)	:	0
Missing values (Flag m)	:	74

Comments : An unusually late Gu flood, and a small Der flood

Shebelli downstream of outlet canal 1988

Daily mean flows (cubic metres per second)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	m	m	m	m	m	m	m	m	m	m	m	m
2	m	m	m	m	m	m	m	m	m	m	m	m
3	m	m	m	m	m	m	m	m	m	m	m	m
4	m	m	m	m	m	m	m	m	m	m	m	m
5	m	m	m	m	m	m	m	m	m	m	m	m
6	m	m	m	m	m	m	m	m	m	m	m	m
7	m	m	m	m	m	m	m	m	m	m	m	m
8	m	m	m	m	m	m	m	m	m	m	m	m
9	m	m	m	m	m	m	m	m	m	m	m	m
10	m	m	m	m	m	m	m	m	m	m	m	m
11	m	m	m	m	m	m	m	m	m	m	m	m
12	m	m	m	m	m	m	m	m	m	m	m	m
13	m	m	m	m	m	m	m	m	m	m	m	m
14	m	m	m	m	m	m	m	m	m	m	m	m
15	m	m	m	m	m	m	m	m	m	m	m	m
16	m	m	m	m	m	m	m	m	m	m	m	m
17	m	m	m	m	m	m	m	m	m	m	m	m
18	m	m	m	m	m	m	m	m	m	m	m	m
19	m	m	m	m	m	m	m	m	m	m	m	m
20	m	m	m	m	m	m	m	m	m	m	m	m
21	m	m	m	m	m	m	m	m	m	m	m	m
22	m	m	m	m	m	m	m	m	m	m	m	m
23	m	m	m	m	m	m	m	m	m	m	m	m
24	m	m	m	m	m	m	m	m	m	m	m	m
25	m	m	m	m	m	m	m	m	m	m	m	m
26	m	m	m	m	m	m	m	m	m	m	m	m
27	m	m	m	m	m	m	m	m	m	m	m	m
28	m	m	m	m	m	m	m	m	m	m	m	m
29	m	m	m	m	m	m	m	m	m	m	m	m
30	m		m	m	m	m	m	m	m	m	m	m
31	m		m		m		m	m		m		m
Mean	-	-	-	-	-	-	-	-	-	-	-	-
Maximum	-	-	-	-	-	-	-	-	-	-	-	-
Minimum	-	-	-	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	-	-	-	-	-	-	-	-

(Total flows in million cubic metres per month)

Annual statistics

Insufficient data for annual statistics

Data availability

Original values	:	0
Estimated values (Flag e)	:	0
Missing values (Flag m)	:	366

Comments :

Shebelli downstream of outlet canal 1989

Daily mean flows (cubic metres per second)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	23.7	21.0	28.6	18.6	125.1	123.8	35.5	37.3	57.3	89.8	124.3	48.8
2	23.5	20.6	28.3	15.3	125.1	121.6	37.9	42.8	58.3	89.0	123.2	49.7
3	23.0	20.7	26.9	15.1	125.1	119.6	36.4	45.9	57.3	87.6	119.0	47.1
4	22.0	20.8	25.0	21.2	125.1	117.4	35.3	50.4	57.6	86.1	113.0	44.7
5	23.0	20.5	22.9	52.5	125.1	114.4	34.3	54.1	58.5	86.9	107.4	43.9
6	22.9	21.0	21.4	74.9	125.1	111.6	33.4	55.6	59.0	94.7	106.0	61.9
7	22.5	21.8	21.4	90.8	125.1	108.7	32.7	58.5	59.6	100.9	102.3	72.7
8	22.6	21.5	22.9	108.2	125.1	105.0	31.7	61.8	63.2	107.4	99.1	72.0
9	22.0	20.8	22.7	111.2	125.1	99.4	30.8	70.3	75.5	112.8	95.9	68.1
10	21.7	20.8	22.0	101.4	125.1	91.9	29.9	81.0	82.0	116.5	92.4	60.1
11	22.1	21.9	21.3	93.2	125.1	82.4	29.7	84.7	86.4	117.7	86.8	52.4
12	24.0	21.9	20.7	97.9	125.1	72.0	29.8	77.5	94.7	119.2	80.0	50.4
13	24.1	21.8	20.7	112.1	125.1	63.9	30.0	73.7	102.1	119.0	74.8	51.0
14	24.1	21.7	20.5	120.0	125.1	58.1	29.8	70.6	111.2	118.0	70.5	47.8
15	24.1	21.5	20.7	122.6	125.1	50.1	29.6	69.1	118.7	117.7	67.5	39.1
16	23.2	21.4	21.5	124.8	125.1	48.1	29.3	67.7	123.4	117.3	65.1	36.0
17	22.6	21.3	21.3	125.1	125.1	46.7	28.5	64.9	123.3	116.3	62.8	33.0
18	21.9	21.3	21.1	124.6	125.1	45.5	27.9	57.9	122.0	115.6	60.7	31.0
19	21.0	21.1	20.8	122.9	125.1	44.3	27.0	51.4	119.1	115.1	58.3	31.4
20	20.8	21.1	20.5	124.5	125.1	43.2	25.8	48.5	113.1	115.9	55.6	31.6
21	21.2	21.3	20.3	123.4	125.1	42.7	25.0	45.4	104.9	117.3	53.3	32.0
22	21.5	21.3	20.1	124.3	125.1	42.3	24.7	41.7	105.0	118.1	51.2	36.0
23	20.8	21.1	19.8	124.9	125.1	41.2	24.5	38.4	107.0	119.7	49.1	53.8
24	20.6	21.0	19.2	125.1	125.1	40.1	24.8	37.1	106.7	120.4	47.6	74.8
25	20.9	21.4	18.9	125.1	125.1	38.4	25.0	36.4	104.9	120.5	47.2	82.3
26	21.2	23.2	19.4	125.1	125.1	37.0	25.2	36.9	102.6	120.9	46.7	80.7
27	20.9	26.9	19.8	125.1	125.1	35.7	25.5	38.2	100.1	123.1	46.6	76.2
28	20.9	29.7	19.7	125.1	125.1	34.7	25.8	39.6	96.6	124.3	46.8	69.9
29	20.6		19.5	125.1	125.1	33.7	26.2	40.1	91.7	124.1	46.7	67.3
30	20.2		19.1	125.1	125.1	33.8	27.2	44.7	88.6	124.3	47.0	63.2
31	19.8		18.8		125.0		31.4	53.1		m		64.0
Mean	22.1	21.8	21.5	100.8	125.1	68.2	29.4	54.0	91.7	111.9	74.9	54.0
Maximum	24.1	29.7	28.6	125.1	125.1	123.8	37.9	84.7	123.4	-	124.3	82.3
Minimum	19.8	20.5	18.8	15.1	125.0	33.7	24.5	36.4	57.3	-	46.6	31.0
Total	59	53	58	261	335	177	79	145	238	-	194	145

(Total flows in million cubic metres per month)

Annual statistics

Insufficient data for annual statistics

Data availability

Original values	:	364
Estimated values (Flag e)	:	0
Missing values (Flag m)	:	1

Comments : An ill-defined Der season on the Shebelli

RESERVOIR STORAGE

1980 - 1989

Reservoir storage 1980

Daily mean volumes (million cubic metres)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	0.0	0.0	0.0	0.0	9.7	0.0	0.0	0.8	16.9	6.5	0.9
2	0.0	0.0	0.0	0.0	0.0	10.8	0.0	0.0	1.6	16.4	6.2	0.7
3	0.0	0.0	0.0	0.0	0.0	11.3	0.0	0.0	2.4	16.0	5.9	0.7
4	0.0	0.0	0.0	0.0	0.0	11.6	0.0	0.0	2.9	15.5	5.5	0.5
5	0.0	0.0	0.0	0.0	0.0	11.6	0.0	0.0	3.8	15.3	5.2	0.3
6	0.0	0.0	0.0	0.0	0.0	11.6	0.0	0.0	4.7	14.9	5.0	0.2
7	0.0	0.0	0.0	0.0	0.0	11.6	0.0	0.0	5.8	14.2	4.8	0.1
8	0.0	0.0	0.0	0.0	0.0	11.6	0.0	0.0	6.8	13.9	4.5	0.0
9	0.0	0.0	0.0	0.0	0.0	11.5	0.0	0.0	7.5	13.5	4.3	0.0
10	0.0	0.0	0.0	0.0	0.0	11.2	0.0	0.0	8.9	13.1	4.9	0.0
11	0.0	0.0	0.0	0.0	0.0	10.8	0.0	0.0	10.0	12.5	4.8	0.0
12	0.0	0.0	0.0	0.0	0.0	10.6	0.0	0.0	10.9	12.2	4.8	0.0
13	0.0	0.0	0.0	0.0	0.0	10.2	0.0	0.0	12.0	11.9	4.6	0.0
14	0.0	0.0	0.0	0.0	0.0	9.8	0.0	0.0	12.7	12.0	4.4	0.0
15	0.0	0.0	0.0	0.0	0.0	9.3	0.0	0.0	13.3	11.7	4.2	0.0
16	0.0	0.0	0.0	0.0	0.0	7.2	0.0	0.0	14.6	11.6	4.1	0.0
17	0.0	0.0	0.0	0.0	0.0	6.1	0.0	0.0	15.5	11.4	3.8	0.0
18	0.0	0.0	0.0	0.0	0.0	4.7	0.0	0.0	16.9	11.1	3.3	0.0
19	0.0	0.0	0.0	0.0	0.0	3.5	0.0	0.0	18.3	10.7	3.2	0.0
20	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0	18.8	10.4	2.9	0.0
21	0.0	0.0	0.0	0.0	0.1	1.1	0.0	0.0	19.5	10.1	2.6	0.0
22	0.0	0.0	0.0	0.0	0.3	0.3	0.0	0.0	19.9	9.7	2.5	0.0
23	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	20.3	9.3	2.2	0.0
24	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	20.1	8.9	1.9	0.0
25	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	19.9	8.6	1.8	0.0
26	0.0	0.0	0.0	0.0	2.9	0.0	0.0	0.0	19.5	8.2	1.7	0.0
27	0.0	0.0	0.0	0.0	3.7	0.0	0.0	0.0	19.1	8.0	1.6	0.0
28	0.0	0.0	0.0	0.0	5.2	0.0	0.0	0.0	18.7	7.6	1.5	0.0
29	0.0	0.0	0.0	0.0	6.3	0.0	0.0	0.0	18.2	7.2	1.3	0.0
30	0.0		0.0	0.0	7.4	0.0	0.0	0.2	17.6	7.0	1.1	0.0
31	0.0		0.0		8.5		0.0	0.5		6.8		0.0
Mean	0.0	0.0	0.0	0.0	1.2	6.3	0.0	0.0	12.7	11.5	3.7	0.1
Maximum	0.0	0.0	0.0	0.0	8.5	11.6	0.0	0.5	20.3	16.9	6.5	0.9
Minimum	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	6.8	1.1	0.0

Annual statistics

Mean : 2.9 (million cubic metres)
Maximum : 20.3 (million cubic metres)
Minimum : 0.0 (million cubic metres)

Data availability

Original values : 366
Estimated values (Flag e) : 0
Missing values (Flag m) : 0

Comments : First year of operations; reservoir only partially filled

Reservoir storage 1981

Daily mean volumes (million cubic metres)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	0.0	0.0	0.0	74.3	147.0	122.8	69.9	59.2	102.5	159.8	146.5
2	0.0	0.0	0.0	0.0	77.0	148.5	120.1	68.0	60.1	103.7	160.9	145.5
3	0.0	0.0	0.0	0.0	79.3	149.5	118.7	66.5	61.2	106.1	161.8	144.0
4	0.0	0.0	0.0	0.1	82.2	150.5	117.2	64.6	62.4	107.6	161.9	143.0
5	0.0	0.0	0.0	0.5	85.7	151.4	115.2	62.9	63.5	108.9	161.4	142.4
6	0.0	0.0	0.0	1.5	88.7	151.3	114.5	61.5	64.5	110.2	160.9	141.6
7	0.0	0.0	0.0	3.0	90.5	150.3	112.8	60.0	65.5	111.9	160.9	142.4
8	0.0	0.0	0.0	4.7	93.5	148.9	110.7	58.0	66.9	113.7	160.9	142.4
9	0.0	0.0	0.0	6.8	95.0	147.5	109.3	57.8	68.0	115.5	160.9	141.6
10	0.0	0.0	0.0	8.6	97.3	146.5	107.6	56.2	69.0	117.3	160.3	141.5
11	0.0	0.0	0.0	10.8	99.2	145.5	105.8	54.4	70.4	119.1	159.8	141.4
12	0.0	0.0	0.0	13.7	102.3	145.0	104.1	53.5	71.8	120.6	159.7	140.5
13	0.0	0.0	0.0	16.0	105.4	144.4	102.4	53.4	73.4	122.7	158.8	139.6
14	0.0	0.0	0.0	19.3	107.9	143.5	100.6	52.5	75.4	124.7	157.7	139.0
15	0.0	0.0	0.0	22.7	109.4	143.0	98.3	51.6	77.0	126.5	156.7	138.5
16	0.0	0.0	0.0	25.3	111.9	141.9	96.5	51.7	78.4	128.5	155.7	138.4
17	0.0	0.0	0.0	28.4	114.5	140.6	94.9	51.5	79.9	131.3	155.6	137.1
18	0.0	0.0	0.0	31.3	116.5	140.5	93.3	52.8	81.1	135.0	154.6	136.5
19	0.0	0.0	0.0	34.0	119.1	140.0	91.6	53.0	82.6	137.1	153.7	135.6
20	0.0	0.0	0.0	38.0	121.0	138.6	90.0	52.3	84.5	139.0	153.6	134.6
21	0.0	0.0	0.0	43.6	123.7	137.5	88.4	53.4	86.2	141.0	153.6	133.7
22	0.0	0.0	0.0	48.4	125.7	136.5	86.2	53.7	88.0	142.5	153.1	132.3
23	0.0	0.0	0.0	51.2	128.3	135.6	84.5	53.5	89.3	144.3	152.6	131.3
24	0.0	0.0	0.0	53.8	130.9	134.1	82.9	54.0	91.6	147.6	152.0	130.3
25	0.0	0.0	0.0	57.2	134.1	132.6	80.8	54.1	93.3	148.0	151.4	129.3
26	0.0	0.0	0.0	60.1	137.0	130.9	79.2	54.7	94.9	149.5	150.5	127.9
27	0.0	0.0	0.0	62.2	138.9	129.4	77.7	55.6	96.5	151.0	149.5	127.0
28	0.0	0.0	0.0	64.8	140.1	128.3	77.7	56.6	97.5	153.1	148.5	126.1
29	0.0		0.0	68.3	142.0	127.0	74.3	57.2	99.8	155.1	147.6	125.1
30	0.0		0.0	71.2	144.0	125.5	71.9	57.8	101.5	157.2	147.4	124.3
31	0.0		0.0		145.5		70.8	58.2		158.8		123.7
Mean	0.0	0.0	0.0	28.2	111.6	141.1	96.8	56.8	78.5	130.0	156.1	136.2
Maximum	0.0	0.0	0.0	71.2	145.5	151.4	122.8	69.9	101.5	158.8	161.9	146.5
Minimum	0.0	0.0	0.0	0.0	74.3	125.5	70.8	51.5	59.2	102.5	147.4	123.7

Annual statistics

Mean : 78.3 (million cubic metres)
Maximum : 161.9 (million cubic metres)
Minimum : 0.0 (million cubic metres)

Data availability

Original values : 365
Estimated values (Flag e) : 0
Missing values (Flag m) : 0

Comments : Reservoir not quite filled in either season

Reservoir storage 1982

Daily mean volumes (million cubic metres)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	122.3	86.5	57.2	20.5	6.9	48.8	73.6	62.5	64.1	93.6	127.9	197.9
2	121.0	86.1	56.2	19.5	7.2	50.9	72.9	61.8	64.9	93.7	129.4	199.6
3	119.6	85.2	55.3	18.2	7.5	53.2	72.3	61.1	65.9	94.4	131.3	199.7
4	118.7	83.8	54.3	17.1	7.7	56.1	72.1	60.5	66.9	94.5	134.1	199.7
5	117.3	82.5	53.4	16.3	8.7	57.6	71.5	60.4	68.0	94.5	136.6	199.7
6	115.1	81.1	52.2	15.0	9.7	59.5	71.1	59.9	69.0	94.5	138.9	200.3
7	113.6	79.9	50.6	14.0	10.7	61.5	70.7	59.8	70.4	94.6	141.0	200.8
8	112.5	78.8	49.7	13.3	11.9	63.4	70.1	59.8	71.8	95.2	142.5	200.8
9	111.9	77.7	48.8	12.2	13.0	65.2	70.1	59.2	73.6	95.4	145.0	201.4
10	111.0	76.6	47.1	11.2	14.0	67.6	70.1	58.5	74.8	96.1	147.9	202.7
11	109.7	75.8	45.9	10.6	15.1	69.7	70.1	57.9	75.8	96.2	149.5	204.3
12	108.9	74.1	44.7	10.0	16.5	71.2	70.0	57.5	77.0	96.9	151.0	204.4
13	107.6	73.2	43.5	9.4	17.8	73.2	69.4	57.2	78.4	97.4	153.1	204.4
14	107.0	71.9	42.0	9.1	19.2	74.7	68.7	57.2	79.3	98.2	155.7	203.8
15	105.0	71.1	40.8	8.6	21.5	76.3	68.6	56.6	81.3	99.1	158.3	203.2
16	103.7	70.4	39.4	8.2	23.9	78.3	68.0	56.5	82.3	100.9	161.3	202.5
17	102.4	69.0	38.1	8.0	25.9	76.3	67.3	56.0	83.7	103.6	163.5	200.8
18	101.1	68.0	37.1	7.7	27.9	77.3	66.6	56.0	84.6	105.8	165.6	199.8
19	100.3	67.0	36.2	7.6	29.2	77.9	66.5	56.5	85.7	107.1	167.8	199.6
20	99.4	66.2	35.0	7.7	30.5	77.4	65.9	56.6	86.9	108.0	169.9	198.5
21	98.2	64.9	33.5	7.7	31.5	77.3	65.2	56.6	88.4	108.9	172.1	197.4
22	96.6	63.8	32.0	7.5	32.9	76.6	65.2	56.6	89.2	110.2	174.3	197.2
23	95.6	63.0	31.0	7.5	34.0	75.9	65.2	57.2	89.7	111.5	176.5	196.2
24	94.5	61.6	29.6	7.4	35.0	75.8	65.2	57.3	90.4	113.3	178.7	195.0
25	93.7	60.7	28.6	7.3	36.5	75.8	64.8	57.9	90.4	115.1	180.9	193.9
26	92.5	59.8	27.3	7.2	38.1	75.5	64.5	58.5	90.8	117.2	183.7	192.8
27	92.0	58.9	26.3	7.2	39.2	75.1	64.4	59.5	91.2	119.1	187.1	192.7
28	91.2	58.1	25.1	7.0	40.6	75.0	63.9	60.5	91.6	120.5	191.5	192.2
29	90.4		24.2	7.0	43.0	74.4	63.5	61.1	92.5	122.0	194.4	191.6
30	88.9		22.5	7.0	45.0	73.7	63.1	62.1	92.9	124.2	195.7	191.0
31	87.7		21.3		47.1		63.1	63.1		126.5		190.4
Mean	104.2	72.0	39.7	10.6	24.1	69.7	67.9	58.8	80.4	104.8	160.2	198.5
Maximum	122.3	86.5	57.2	20.5	47.1	78.3	73.6	63.1	92.9	126.5	195.7	204.4
Minimum	87.7	58.1	21.3	7.0	6.9	48.8	63.1	56.0	64.1	93.6	127.9	190.4

Annual statistics

Mean : 82.7 (million cubic metres)
Maximum : 204.4 (million cubic metres)
Minimum : 6.9 (million cubic metres)

Data availability

Original values : 365
Estimated values (Flag e) : 0
Missing values (Flag m) : 0

Comments : Reservoir full by end of Der season

Reservoir storage 1983

Daily mean volumes (million cubic metres)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	189.3	153.0	102.4	55.0	27.0	35.7	73.3	64.5	83.0	130.3	175.9	189.0
2	188.7	150.6	100.7	53.7	26.6	34.5	74.3	63.8	84.6	132.3	177.6	186.1
3	188.2	149.5	99.0	51.9	26.2	34.0	74.3	63.1	86.8	134.6	179.8	185.8
4	188.1	148.0	97.4	50.6	25.7	33.5	73.7	62.5	88.5	136.1	181.4	184.8
5	187.1	146.0	95.7	49.7	25.3	33.2	73.3	62.1	90.0	137.9	182.0	183.2
6	187.0	143.5	94.1	48.8	25.3	33.2	72.9	61.8	91.6	138.1	182.6	181.9
7	186.4	141.0	92.4	47.1	25.5	32.8	72.3	61.2	93.3	139.0	184.2	179.8
8	184.8	139.0	90.1	45.6	25.7	32.5	72.2	61.1	95.3	140.1	186.6	179.2
9	183.7	137.6	89.2	44.7	25.8	32.2	72.2	60.5	96.5	141.5	189.8	179.2
10	183.1	136.9	87.7	43.3	26.5	31.8	72.2	60.4	98.2	143.0	192.0	179.1
11	182.6	135.5	86.1	41.6	26.6	32.9	72.2	59.9	99.9	145.0	192.2	178.1
12	182.0	132.4	84.5	40.3	26.6	34.0	72.2	59.8	101.6	146.5	192.8	177.0
13	180.9	130.3	82.9	39.1	26.6	35.2	71.5	59.8	103.3	148.0	193.8	175.4
14	180.3	128.4	80.8	37.6	26.6	36.8	71.5	60.1	105.0	150.0	194.5	174.0
15	179.2	126.5	79.2	36.5	27.0	38.9	71.5	61.1	106.7	151.5	195.1	173.7
16	177.6	124.7	77.7	35.0	27.7	40.8	71.4	62.2	109.3	152.6	196.1	172.6
17	175.4	123.2	76.2	33.5	28.4	42.8	70.8	63.4	111.4	153.6	196.2	171.6
18	173.2	121.5	74.7	32.7	29.1	45.0	70.7	63.8	112.8	155.1	196.1	171.0
19	171.5	120.0	73.3	31.7	29.8	47.3	69.4	63.9	113.8	156.7	195.0	170.5
20	170.5	118.2	72.2	30.5	30.3	49.7	69.0	64.5	115.1	158.2	193.4	170.4
21	169.4	116.4	70.8	29.1	31.0	52.1	68.3	65.5	116.4	160.3	192.7	169.4
22	168.3	114.2	69.0	28.4	31.3	54.7	68.0	66.6	117.8	161.5	191.7	168.4
23	167.2	112.8	67.6	28.4	31.7	57.3	68.0	67.6	118.7	164.5	191.5	168.2
24	166.2	111.1	65.0	27.5	32.3	59.8	68.0	69.0	120.0	166.7	190.5	167.2
25	164.6	109.3	64.7	26.9	33.2	62.1	67.6	70.4	121.9	168.3	190.4	166.2
26	162.4	107.6	63.5	27.1	33.7	64.2	67.3	71.2	123.3	169.4	189.9	165.1
27	160.9	105.8	62.1	27.4	34.2	66.2	67.3	72.6	124.2	170.4	189.3	164.0
28	160.8	104.1	60.2	27.3	34.7	67.6	66.9	74.8	125.6	170.5	188.7	163.0
29	159.3		58.8	27.1	34.7	69.7	66.6	77.7	127.5	171.5	187.6	161.4
30	157.2		57.5	26.9	34.8	71.8	66.2	79.9	128.9	173.2	187.2	159.9
31	155.1		56.2		35.2		65.2	81.5		174.8		159.3
Mean	175.2	128.1	78.5	37.5	29.2	45.4	70.3	65.7	107.0	152.9	189.2	173.4
Maximum	189.3	153.0	102.4	55.0	35.2	71.8	74.3	81.5	128.9	174.8	196.2	189.0
Minimum	155.1	104.1	56.2	26.9	25.3	31.8	65.2	59.8	83.0	130.3	175.9	159.3

Annual statistics

Mean : 104.3 (million cubic metres)
Maximum : 196.2 (million cubic metres)
Minimum : 25.3 (million cubic metres)

Data availability

Original values : 365
Estimated values (Flag e) : 0
Missing values (Flag m) : 0

Comments :

Reservoir storage 1984

Daily mean volumes (million cubic metres)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	158.7	126.6	90.1	42.7	11.4	1.7	0.1	1.8	13.8	30.3	61.2	62.8
2	157.7	125.6	88.8	40.8	10.6	1.6	0.1	2.0	14.3	31.0	62.4	62.4
3	156.8	125.1	87.3	39.2	10.0	1.3	0.0	1.9	14.8	32.0	62.5	61.8
4	156.2	123.7	86.1	38.1	9.6	1.2	0.0	1.9	15.1	33.0	63.1	61.8
5	155.1	121.9	84.9	37.1	9.2	1.2	0.0	1.9	15.5	34.0	63.8	61.2
6	154.5	121.0	83.8	35.7	8.6	1.1	0.0	2.1	15.8	35.0	64.5	60.8
7	152.7	120.0	82.2	34.0	8.1	1.1	0.0	2.3	16.7	35.8	65.5	60.1
8	152.5	119.1	80.7	32.7	7.7	1.1	0.0	2.4	17.6	36.8	66.2	59.8
9	151.5	117.8	79.6	31.0	7.5	1.0	0.0	2.6	18.5	37.1	67.0	59.8
10	150.5	117.7	78.4	29.8	7.5	1.0	0.0	3.0	19.3	37.6	68.3	59.8
11	149.5	116.9	77.0	28.7	7.5	0.9	0.0	3.4	19.9	38.1	68.7	59.2
12	148.0	116.0	75.5	27.5	7.5	0.8	0.0	3.8	20.1	39.2	69.6	58.5
13	146.5	114.6	74.0	26.2	7.0	0.5	0.0	4.1	20.5	40.0	69.0	58.2
14	145.5	113.3	72.6	25.0	6.3	0.4	0.0	4.3	21.1	41.4	68.7	57.8
15	144.0	111.9	71.1	23.8	5.1	0.4	0.0	4.7	21.5	43.0	68.6	57.2
16	142.5	110.7	69.7	22.5	4.7	0.4	0.0	5.2	22.5	44.2	68.0	56.6
17	142.0	110.1	67.6	21.3	4.3	0.3	0.0	5.8	23.9	45.6	67.0	56.5
18	141.0	108.4	65.9	20.5	4.0	0.3	0.0	6.3	24.4	47.1	66.5	55.9
19	140.0	106.7	64.2	19.7	3.5	0.3	0.0	6.9	24.4	48.8	65.9	55.3
20	139.4	105.4	62.5	19.5	2.8	0.3	0.2	7.5	24.8	50.0	65.8	54.7
21	138.5	104.1	60.8	19.7	2.7	0.3	0.3	7.7	24.8	50.7	65.3	54.6
22	137.1	102.8	59.4	19.3	2.6	0.3	0.4	8.1	25.1	51.6	65.8	53.7
23	136.0	101.1	57.5	18.7	2.4	0.2	0.8	8.8	25.5	52.2	65.8	52.5
24	134.7	99.0	55.6	17.8	2.3	0.2	0.9	9.4	26.0	53.1	65.2	52.1
25	134.6	97.8	54.3	16.5	2.3	0.2	1.1	10.0	26.8	55.0	65.2	51.6
26	133.7	97.7	52.5	15.3	2.3	0.2	1.2	10.6	27.7	56.8	65.2	50.9
27	132.2	95.4	50.9	14.3	2.2	0.1	1.2	11.4	28.4	58.2	64.8	50.4
28	130.8	93.3	49.4	13.3	2.1	0.1	1.5	12.0	28.9	59.4	64.5	50.0
29	129.8	92.0	47.6	12.7	1.9	0.1	1.5	12.5	29.1	60.1	64.5	49.4
30	128.9		45.9	12.0	2.0	0.1	1.5	13.0	29.4	60.5	63.8	49.1
31	127.9		44.2		1.9		1.6	13.5		61.1		49.1
Mean	143.5	110.9	68.4	25.2	5.4	0.6	0.4	6.2	21.9	45.1	65.8	56.3
Maximum	158.7	126.6	90.1	42.7	11.4	1.7	1.6	13.5	29.4	61.1	69.6	62.8
Minimum	127.9	92.0	44.2	12.0	1.9	0.1	0.0	1.8	13.8	30.3	61.2	49.1

Annual statistics

Mean : 45.6 (million cubic metres)
Maximum : 158.7 (million cubic metres)
Minimum : 0.0 (million cubic metres)

Data availability

Original values : 366
Estimated values (Flag e) : 0
Missing values (Flag m) : 0

Comments : Reservoir emptied in June and July

Reservoir storage 1985

Daily mean volumes (million cubic metres)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	48.5	18.3	7.4	1.0	13.0	69.0	88.8	81.1	86.5	112.4	129.8	119.6
2	48.2	18.0	7.0	0.9	13.1	70.5	88.5	81.1	87.7	112.9	129.8	119.1
3	47.6	17.5	6.8	0.7	14.0	72.6	88.8	81.0	89.2	114.2	128.9	118.7
4	46.8	17.4	6.4	0.6	15.8	74.7	88.8	80.4	90.8	115.1	128.4	118.6
5	46.2	16.9	6.0	0.6	17.1	76.9	88.8	80.3	92.5	115.9	127.9	117.8
6	46.2	16.9	5.6	0.5	18.6	78.0	88.8	80.3	93.7	116.0	127.5	117.3
7	45.9	16.5	5.4	0.4	19.9	78.1	88.8	80.3	94.5	116.4	127.0	116.9
8	45.3	16.2	5.1	0.4	21.5	78.8	88.8	80.3	95.3	116.9	126.9	116.4
9	44.6	15.8	4.8	0.4	22.3	80.0	89.2	80.3	96.1	116.9	126.5	116.0
10	41.4	15.5	4.6	0.4	23.6	81.8	89.6	80.3	97.0	116.9	126.1	116.0
11	39.2	15.0	4.4	0.3	25.4	82.6	89.6	80.3	97.8	117.8	126.1	115.5
12	38.1	14.6	4.1	0.5	28.6	83.4	88.9	80.3	98.6	119.1	126.1	114.6
13	37.3	14.3	3.9	0.7	30.8	84.1	88.8	80.3	99.4	120.5	126.1	113.7
14	36.7	13.6	3.6	0.7	33.2	84.9	88.5	80.3	100.3	121.9	126.1	112.4
15	35.0	13.0	3.4	0.7	36.0	85.3	87.7	79.9	101.1	124.1	126.9	111.9
16	33.9	12.4	3.1	2.0	38.4	86.1	87.3	79.5	102.0	124.7	126.9	111.4
17	32.5	11.9	2.9	2.3	40.3	87.3	86.9	78.9	102.8	125.1	126.1	110.7
18	31.5	11.4	2.6	2.4	42.5	88.1	86.1	78.8	103.6	125.2	126.0	110.6
19	30.5	10.8	2.5	2.5	44.7	88.8	85.3	78.9	104.1	126.1	125.2	109.7
20	29.1	10.4	2.3	3.2	46.5	90.0	84.9	80.2	105.0	127.4	124.6	108.9
21	28.2	10.0	2.3	3.9	49.1	90.4	84.9	80.3	105.4	128.4	123.3	108.4
22	27.3	9.4	2.2	5.3	51.6	90.4	84.9	80.4	106.7	128.9	123.2	108.0
23	26.3	9.1	2.1	6.8	54.0	90.8	84.5	81.0	108.4	128.9	122.4	108.0
24	25.1	8.6	2.0	8.4	55.9	91.3	84.1	81.1	109.7	128.9	122.3	107.6
25	24.2	8.2	1.9	10.5	56.9	91.9	83.4	81.5	109.8	128.9	121.5	107.1
26	23.3	8.2	1.9	11.1	58.5	90.9	83.4	82.6	110.6	128.9	121.4	106.3
27	22.1	8.0	1.7	11.7	60.5	90.4	83.4	82.6	111.4	128.9	121.4	105.4
28	21.3	7.7	1.6	12.4	62.2	89.6	83.3	82.6	111.6	128.9	121.0	104.5
29	20.5		1.6	13.0	64.1	88.9	82.3	82.7	112.3	128.9	120.4	103.7
30	19.7		1.4	13.5	65.5	89.2	81.8	83.8	112.4	129.8	119.6	102.8
31	18.6		1.1		67.3		81.5	85.3		129.8		102.0
Mean	34.2	13.1	3.6	3.9	38.4	84.2	86.5	80.9	101.2	122.7	125.2	111.6
Maximum	48.5	18.3	7.4	13.5	67.3	91.9	89.6	85.3	112.4	129.8	129.8	119.6
Minimum	18.6	7.7	1.1	0.3	13.0	69.0	81.5	78.8	86.5	112.4	119.6	102.0

Annual statistics

Mean : 67.4 (million cubic metres)
Maximum : 129.8 (million cubic metres)
Minimum : 0.3 (million cubic metres)

Data availability

Original values : 365
Estimated values (Flag e) : 0
Missing values (Flag m) : 0

Comments : Reservoir emptied in April

Reservoir storage 1986

Daily mean volumes (million cubic metres)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	101.6	72.6	43.0	23.1	26.1	59.9	93.3	123.2	149.6	171.5	170.5	157.7
2	101.1	71.1	41.9	22.7	26.4	62.1	93.7	124.2	150.5	172.1	169.9	156.7
3	100.3	70.1	41.1	22.3	26.6	64.3	94.5	125.1	151.5	173.2	169.4	155.7
4	99.4	69.4	40.3	22.1	26.9	65.0	95.3	126.1	152.6	173.8	168.8	155.6
5	98.7	68.7	39.4	21.5	27.5	67.6	96.1	127.0	153.6	174.7	168.3	154.7
6	98.6	67.6	38.6	21.1	28.2	69.0	96.9	127.9	154.6	174.9	167.8	154.1
7	98.2	66.2	37.8	21.1	29.1	70.1	97.4	128.4	155.1	175.8	166.7	153.5
8	97.4	64.8	37.1	20.7	30.0	70.8	98.6	129.4	155.6	176.0	166.2	152.6
9	96.5	63.5	36.3	20.1	30.6	72.5	99.4	129.9	156.2	176.9	166.2	152.0
10	96.1	62.8	35.8	19.7	31.8	73.7	100.7	131.2	156.8	177.1	165.6	152.1
11	95.3	61.5	35.0	19.5	33.5	74.7	102.0	131.8	157.7	178.0	165.1	153.5
12	94.5	60.8	34.2	19.3	35.2	76.2	102.8	132.7	157.8	178.1	165.0	153.5
13	93.3	59.8	33.4	19.1	37.1	77.3	103.7	133.6	158.7	178.2	164.1	152.6
14	92.8	58.3	31.6	18.9	38.9	78.4	104.6	134.1	159.3	179.1	163.5	151.5
15	91.6	57.5	30.8	18.7	40.8	79.9	106.6	134.7	159.9	179.2	162.9	150.0
16	90.4	56.3	30.1	18.6	42.2	81.1	107.6	135.6	160.8	179.2	162.0	148.0
17	89.6	55.6	29.4	18.3	43.6	81.8	109.2	137.0	161.4	179.3	161.4	147.0
18	88.8	54.4	28.9	18.2	44.7	82.6	109.4	138.1	162.4	180.3	160.9	145.9
19	87.7	53.7	28.4	19.3	45.1	83.4	110.6	139.9	163.0	180.3	160.8	144.0
20	86.1	51.7	28.0	20.1	45.8	84.1	111.5	140.5	164.0	180.3	159.9	142.9
21	84.9	51.1	27.5	20.9	46.5	84.9	112.3	141.0	165.0	179.8	159.8	141.0
22	83.8	50.0	27.0	21.5	47.7	85.7	112.4	141.5	165.6	179.2	159.8	139.0
23	82.6	48.8	26.6	21.5	49.4	86.9	113.3	142.4	166.2	179.1	159.8	137.1
24	81.5	47.6	26.3	21.5	50.6	88.1	114.2	143.0	166.7	178.2	159.8	135.5
25	80.3	46.8	25.5	21.7	51.9	89.1	115.1	143.6	167.2	177.6	159.8	132.9
26	79.2	45.9	24.8	22.5	52.8	89.3	116.0	145.4	167.8	176.5	159.3	132.2
27	78.1	45.0	24.4	23.4	53.7	90.0	116.9	146.5	168.4	175.4	158.8	131.2
28	77.0	44.2	24.0	24.6	54.9	90.5	117.8	147.4	169.3	174.7	158.2	129.4
29	75.8		23.6	25.1	55.6	91.6	118.7	147.5	169.5	173.7	157.7	127.5
30	74.7		23.2	25.7	57.2	92.8	120.0	148.4	170.5	172.6	157.7	125.7
31	73.7		23.1		58.8		121.5	149.0		171.5		123.7e
Mean	89.3	58.1	31.5	21.1	40.9	78.8	106.8	136.3	160.6	176.7	163.2	144.8
Maximum	101.6	72.6	43.0	25.7	58.8	92.8	121.5	149.0	170.5	180.3	170.5	157.7
Minimum	73.7	44.2	23.1	18.2	26.1	59.9	93.3	123.2	149.6	171.5	157.7	123.7

Annual statistics

Mean : 101.0 (million cubic metres)
Maximum : 180.3 (million cubic metres)
Minimum : 18.2 (million cubic metres)

Data availability

Original values : 364
Estimated values (Flag e) : 1
Missing values (Flag m) : 0

Comments :

Reservoir storage 1987

Daily mean volumes (million cubic metres)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	121.8	74.7	40.8	16.6	6.8	37.8	127.4	179.2	195.0	177.1	170.5	164.6e
2	120.1	73.3	39.7	16.0	6.5	38.4	129.4	180.8	194.5	176.5	170.5	163.5e
3	119.1	72.5	38.6	15.3	6.1	39.4	132.2	182.0	194.0	175.4	171.5	162.5e
4	117.8	71.1	37.6	14.6	5.8	40.8	134.2	183.1	195.0	174.3	171.0	161.4e
5	116.4	69.8	36.5	14.1	5.9	43.4	137.0	183.7	195.0	173.7	170.5	160.4e
6	114.6	69.0	35.5	13.8	6.4	47.6	139.0	184.7	195.0	172.6	170.5	159.3e
7	112.8	67.6	34.5	13.6	6.7	51.3	141.5	185.4	195.0	171.6	170.4	158.3e
8	111.1	66.2	33.5	13.4	6.9	56.5	144.0	187.7	195.0	171.5	169.5	157.3e
9	109.3	64.8	32.5	13.1	7.4	61.5	145.9	190.9	194.5	170.5	169.5	156.2e
10	107.6	63.5	31.5	12.8	7.9	66.5	147.0	192.7	193.9	169.9	170.4	155.2e
11	105.8	62.8	30.5	12.5	8.3	70.0	149.0	193.9	193.3	169.3	170.5	154.2e
12	104.5	61.5	29.6	12.2	9.4	72.2	151.0	195.0	192.7	168.4	171.5	153.2e
13	103.3	60.1	29.1	12.0	10.7	74.4	152.1	196.1	191.7	168.2	172.6	152.2e
14	101.6	58.8	28.2	11.7	11.9	76.6	154.1	196.8	190.9	167.2	172.6	151.2e
15	100.3	57.5	27.3	11.2	13.0	79.2	156.1	197.3	189.3	166.2	172.6	150.2e
16	99.0	56.2	26.6	11.0	13.9	81.5	157.2	197.3	188.2	166.6	172.1	149.2e
17	97.4	54.7	25.9	10.7	14.9	83.8	158.2	196.8	187.0	166.8	171.5	148.3e
18	95.8	53.1	25.1	10.4	15.8	86.1	159.3	196.8	186.0	167.8	170.5	147.3e
19	94.8	51.9	24.2	10.1	16.0	88.4	160.3	197.3	185.9	168.8	171.0	146.3e
20	93.3	50.6	23.3	9.7	16.5	90.5	161.5	197.3	185.8	169.3	171.5	145.4e
21	91.6	49.4	22.5	9.4	16.9	93.3	163.5	197.3	184.9	168.4	171.5	144.4e
22	90.0	48.2	21.7	9.0	17.3	96.1	165.6	197.3	184.2	168.2	171.5	143.5e
23	88.5	47.1	20.9	9.0	18.7	99.9	167.7	197.3	182.6	167.3	171.5	142.6e
24	86.9	45.9	20.1	8.8	20.3	104.6	168.8	196.3	181.5	167.2	171.0	141.6e
25	85.7	44.7	19.3	8.5	22.1	110.1	170.1	196.1	180.9	167.2	169.9	140.7e
26	84.5	43.6	18.6	8.2	24.0	114.2	172.0	195.0	180.3	166.3	168.8	139.8e
27	82.6	42.5	18.0	8.0	25.7	117.3	172.2	194.0	180.3	167.8	168.2	138.9e
28	80.7	41.4	17.6	7.6	28.0	120.0	174.3	194.5	179.3	168.8	167.2	138.0e
29	79.2		17.1	7.2	31.0	122.1	176.4	195.0	179.1	168.3	166.2	137.1e
30	77.7		16.4	7.0	33.7	124.8	177.1	195.0	178.1	168.8	165.7	136.2e
31	76.2		15.8		36.5		178.1	195.0		169.9		135.3e
Mean	99.0	57.9	27.0	11.3	15.2	79.6	155.6	192.5	188.3	169.7	170.4	149.5
Maximum	121.8	74.7	40.8	16.6	36.5	124.8	178.1	197.3	195.0	177.1	172.6	164.6
Minimum	76.2	41.4	15.8	7.0	5.8	37.8	127.4	179.2	178.1	166.2	165.7	135.3

Annual statistics

Mean : 110.1 (million cubic metres)
Maximum : 197.3 (million cubic metres)
Minimum : 5.8 (million cubic metres)

Data availability

Original values : 334
Estimated values (Flag e) : 31
Missing values (Flag m) : 0

Comments :

Reservoir storage 1988

Daily mean volumes (million cubic metres)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	134.1	66.6e	28.4e	11.6e	8.2e	16.6	16.7	10.8	52.3e	103.1e	153.8e	182.6e
2	132.2	64.6e	27.5e	11.4e	8.5e	16.9	16.4	11.6	53.9e	104.8e	155.3e	183.1e
3	130.8	62.8e	26.8e	11.3e	8.8e	17.1	16.0	12.8	55.6e	106.5e	156.9e	183.7e
4	129.4	61.0e	26.0e	11.1e	9.0e	17.3	15.8	13.8	57.3e	108.2e	158.4e	184.3e
5	128.4	59.2e	25.2e	11.0e	9.3e	17.6	15.8	15.1	59.0e	109.9e	160.0e	184.8e
6	127.0	57.5e	24.5e	10.9e	9.6e	17.9	15.5	16.5	60.7e	111.6e	161.6e	185.4e
7	125.6	55.8e	23.8e	10.7e	9.9e	17.6	15.5	17.8	62.4e	113.2e	163.1e	185.9e
8	123.7	54.2e	23.1e	10.6e	10.2e	17.3	15.5	18.8	64.1e	114.9e	164.7e	186.5e
9	121.9	52.6e	22.4e	10.5e	10.5e	17.1	15.3	19.9	65.8e	116.6e	166.3e	187.0e
10	120.9	51.1e	21.8e	10.3e	10.8e	16.9	14.9	20.9	67.5e	118.3e	167.8e	187.5e
11	119.1	49.6e	21.1e	10.2e	11.1e	16.4	14.5	21.7	69.2e	120.0e	169.4e	188.0e
12	117.8	48.2e	20.5e	10.1e	11.5e	16.0	14.1	22.5	70.9e	121.7e	170.9e	187.5e
13	116.4	46.8e	19.9e	9.9e	11.8e	15.8	13.6	23.4	72.6e	123.4e	172.5e	187.0e
14	113.0e	45.4e	19.4e	9.8e	12.2e	15.5	13.3	24.8	74.3e	125.1e	173.1e	186.5e
15	109.8e	44.1e	18.8e	9.7e	12.6e	15.3	13.0	26.0	76.0e	126.8e	173.6e	185.7e
16	106.6e	42.8e	18.3e	9.6e	12.9e	15.1	12.7	27.2	77.7e	128.5e	174.2e	184.8e
17	103.5e	41.6e	17.7e	9.4e	13.3e	14.8	12.4	28.2	79.3e	130.2e	174.7e	184.0e
18	100.5e	40.4e	17.2e	9.3e	13.7e	14.8	12.0	29.6	81.0e	131.9e	175.3e	183.2e
19	97.6e	39.2e	16.7	9.2e	14.2e	14.8	11.9	31.3	82.7e	133.5e	175.9e	182.4e
20	94.7e	38.1e	16.0	9.1e	14.6e	14.6	11.7	33.0	84.4e	135.0e	176.4e	181.6e
21	92.0e	37.0e	15.3	9.0e	15.0e	14.4	11.6	34.7	86.1e	136.6e	177.0e	180.8e
22	89.3e	35.9e	14.6	8.9e	15.5e	14.1	11.6	36.0	87.8e	138.1e	177.5e	180.0e
23	86.7e	34.9e	14.0	8.7e	16.0e	13.6	11.3	37.6	89.5e	139.7e	178.1e	179.2e
24	84.2e	33.8e	13.5	8.6e	16.4e	13.5	11.0	39.1	91.2e	141.3e	178.7e	178.4e
25	81.8e	32.9e	13.3	8.5e	17.0e	13.5	10.8	39.8	92.9e	142.8e	179.2e	177.6e
26	79.4e	31.9e	12.7	8.4e	17.5e	13.3	10.7	41.4	94.6e	144.4e	179.8e	176.8e
27	77.1e	31.0e	12.3	8.3e	18.0e	13.4	10.3	43.3	96.3e	146.0e	180.3e	176.0e
28	74.9e	30.1e	12.2e	8.2e	17.6e	17.7	10.0	45.3	98.0e	147.5e	180.9e	175.2e
29	72.7e	29.2e	12.0e	8.1e	17.2e	17.4	9.9	47.1	99.7e	149.1e	181.5e	174.4e
30	70.6e		11.9e	8.0e	16.9e	16.9	10.1	48.8	101.4e	150.6e	182.0e	173.7e
31	68.6e		11.7e		16.5		10.4	50.6		152.2e		172.9e
Mean	104.2	45.5	18.7	9.7	13.1	15.8	13.0	28.7	76.8	128.1	171.3	182.1
Maximum	134.1	66.6	28.4	11.6	18.0	17.9	16.7	50.6	101.4	152.2	182.0	188.0
Minimum	68.6	29.2	11.7	8.0	8.2	13.3	9.9	10.8	52.3	103.1	153.8	172.9

Annual statistics

Mean : 67.4 (million cubic metres)
Maximum : 188.0 (million cubic metres)
Minimum : 8.0 (million cubic metres)

Data availability

Original values : 115
Estimated values (Flag e) : 251
Missing values (Flag m) : 0

Comments : Estimates derived by interpolation and comparisons with canal flows

Reservoir storage 1989

Daily mean volumes (million cubic metres)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	172.1	142.9	109.8	77.3	72.3	106.3	132.6	151.0	164.6	179.1	205.5	211.5
2	171.0	141.5	109.3	78.0	72.9	107.1	133.2	151.6	165.1	179.3	206.1	211.6
3	170.5	141.0	108.4	77.4	74.0	108.0	133.7	152.5	165.2	180.3	206.7	213.7
4	169.9	139.9	107.6	77.0	75.5	108.9	134.6	153.1	166.1	180.9	207.3	213.8
5	169.3	138.5	106.7	76.5	77.0	109.7	135.6	153.6	166.7	181.5	207.9	212.8
6	168.4	137.5	105.8	75.8	78.4	110.6	136.5	154.6	167.2	182.5	207.3	212.7
7	167.8	136.6	105.0	75.2	80.3	110.6	137.1	154.7	167.3	183.1	206.6	212.7
8	166.7	135.6	104.1	75.1	82.2	111.1	137.5	155.6	168.2	183.7	205.5	212.7
9	166.1	134.6	102.5	74.7	83.0	111.5	138.0	155.6	168.3	184.8	205.6	212.6
10	165.1	133.2	101.9	74.4	83.8	111.6	138.5	156.2	168.8	185.8	207.3	211.6
11	163.6	131.7	101.1	74.3	85.3	112.4	137.7	156.7	169.4	186.5	207.9	211.5
12	163.0	130.3	100.3	73.7	86.9	113.3	138.5	157.2	169.5	187.1	207.9	210.9
13	162.9	128.9	99.4	72.9	88.1	115.1	139.4	157.7	170.4	188.1	207.9	210.2
14	161.9	127.9	98.1	72.3	88.8	117.7	140.0	158.2	170.5	188.2	207.3	209.1
15	160.9	127.0	96.2	72.2	90.0	119.1	140.5	158.8	170.5	189.2	206.7	207.9
16	159.3	125.7	94.5	71.5	91.2	120.1	141.4	158.8	171.5	189.3	207.3	206.1
17	157.8	124.6	92.5	71.1	92.5	121.4	142.0	159.3	172.6	189.4	208.6	204.4
18	157.7	122.8	91.2	70.7	93.7	122.3	142.5	159.8	172.7	190.4	210.2	204.4
19	156.7	121.4	90.1	70.1	94.5	122.8	143.0	160.3	173.7	190.4	210.3	203.8
20	155.2	120.0	89.2	70.4	95.7	123.3	143.5	160.9	173.7	190.4	210.3	203.2
21	154.0	118.3	88.4	70.8	97.3	124.2	144.4	161.4	174.3	190.4	210.3	202.6
22	151.7	117.7	87.3	70.8	97.8	125.1	145.0	161.9	174.8	191.0	210.9	202.0
23	151.1	116.9	86.1	70.8	98.6	126.1	145.5	161.9	174.9	191.6	210.9	201.4
24	151.0	116.0	84.5	70.8	99.4	127.0	146.4	162.4	175.8	191.7	210.4	200.8
25	150.4	115.0	83.0	71.4	100.3	127.9	147.0	163.0	175.9	192.7	212.5	199.7
26	149.5	113.3	81.8	71.5	101.1	128.0	147.5	163.0	176.5	193.4	211.6	198.5
27	148.5	111.9	80.7	71.5	101.9	128.8	148.4	164.0	177.0	195.8	212.6	197.4
28	147.5	110.6	79.2	71.5	102.5	129.4	148.5	164.0	177.6	200.2	212.1	196.8
29	146.0		78.4	71.5	103.7	130.3	148.5	164.0	178.1	203.7	211.5	196.2
30	145.0		77.0	71.8	104.5	131.3	149.4	164.0	178.2	205.5	211.5	196.1
31	144.0		76.3		105.4		150.0	164.0		205.5e		195.1
Mean	158.9	127.2	94.1	73.1	90.3	118.7	141.5	158.7	171.5	189.4	208.8	205.9
Maximum	172.1	142.9	109.8	78.0	105.4	131.3	150.0	164.0	178.2	205.5	212.6	213.8
Minimum	144.0	110.6	76.3	70.1	72.3	106.3	132.6	151.0	164.6	179.1	205.5	195.1

Annual statistics

Mean : 145.0 (million cubic metres)
Maximum : 213.8 (million cubic metres)
Minimum : 70.1 (million cubic metres)

Data availability

Original values : 364
Estimated values (Flag e) : 1
Missing values (Flag m) : 0

Comments : Reservoir filling from April to November

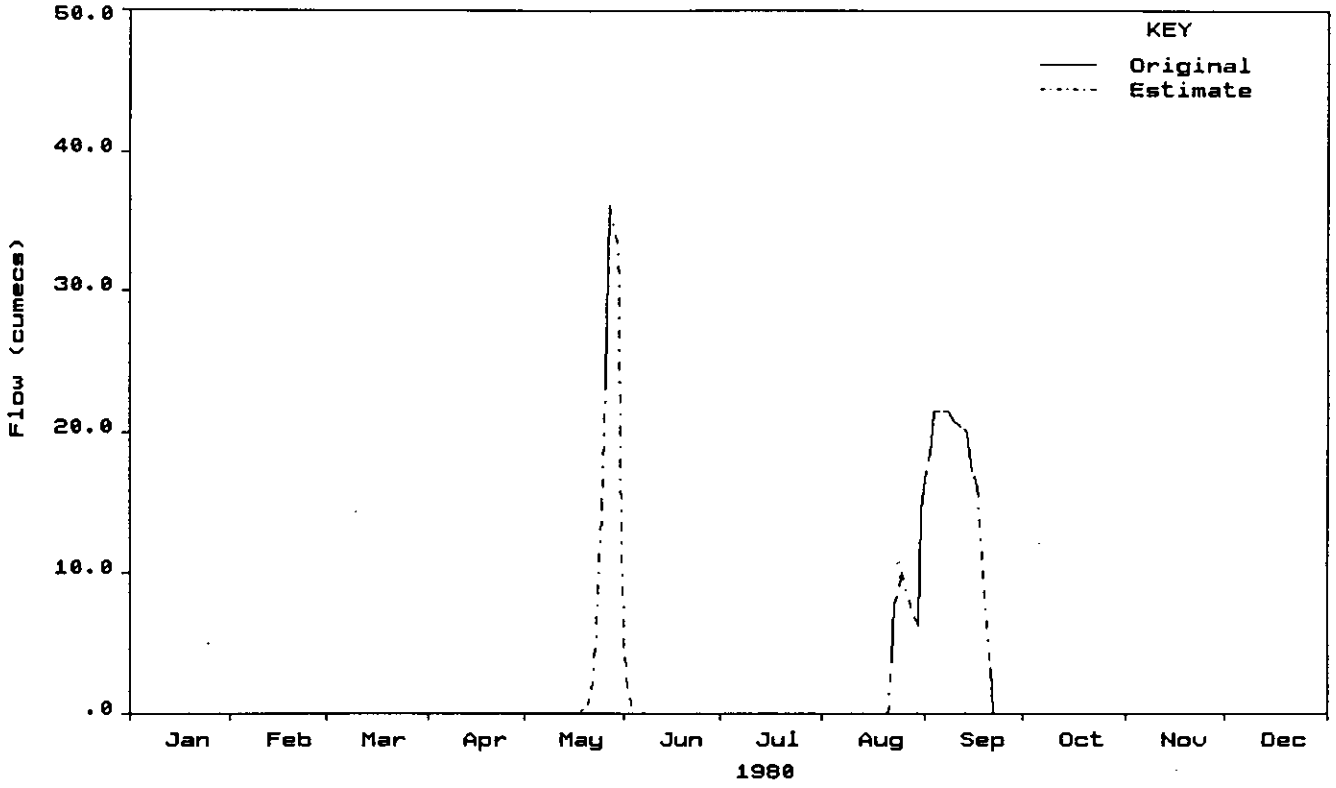
4. ANNUAL HYDROGRAPHS

SUPPLY CANAL

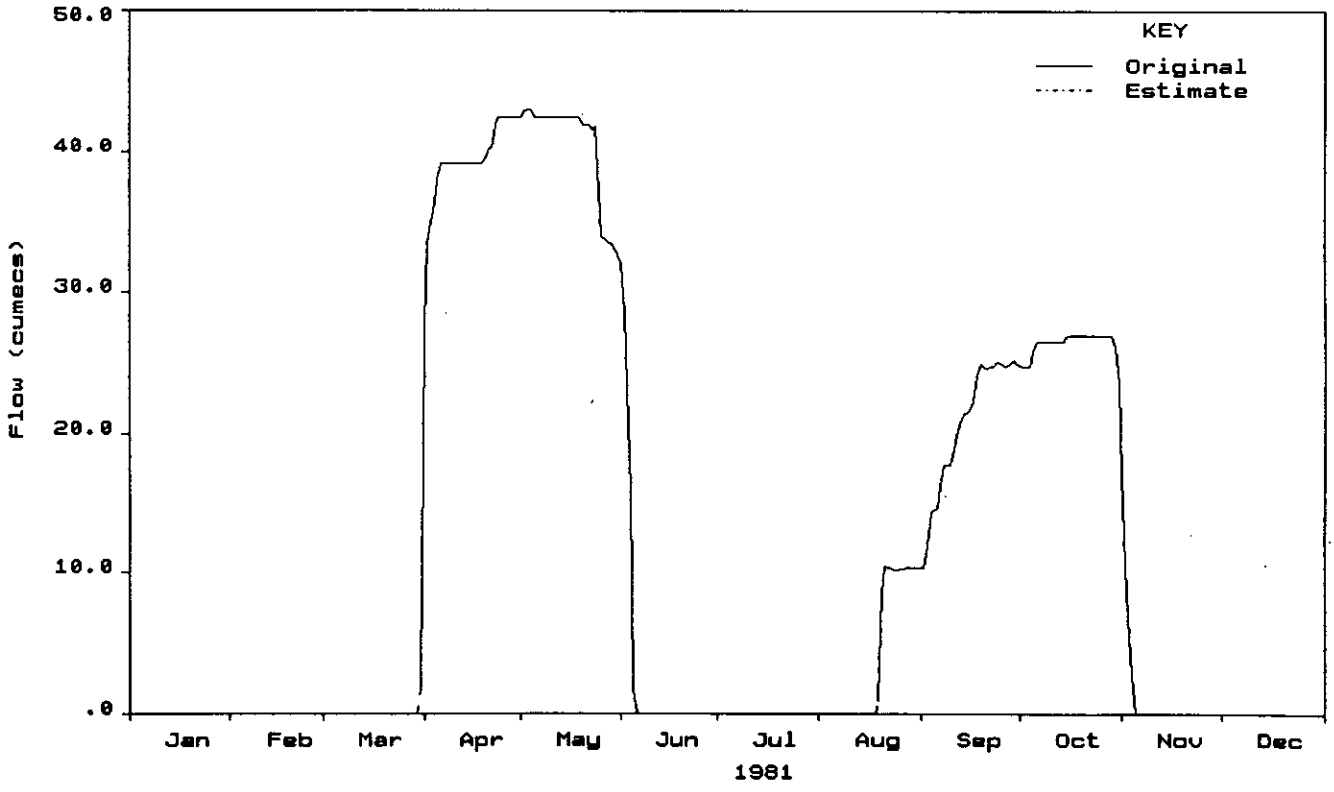
1980 - 1989

Supply canal

1980

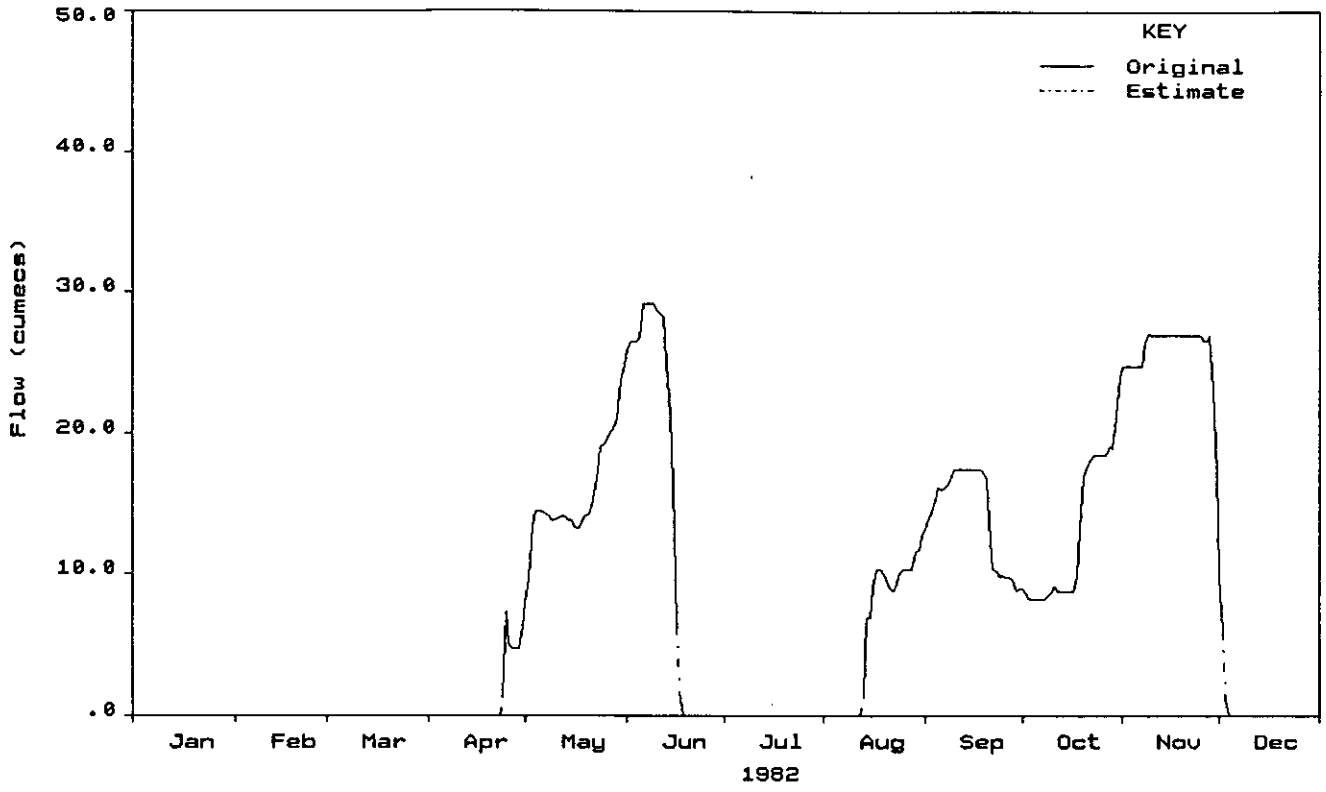


1981

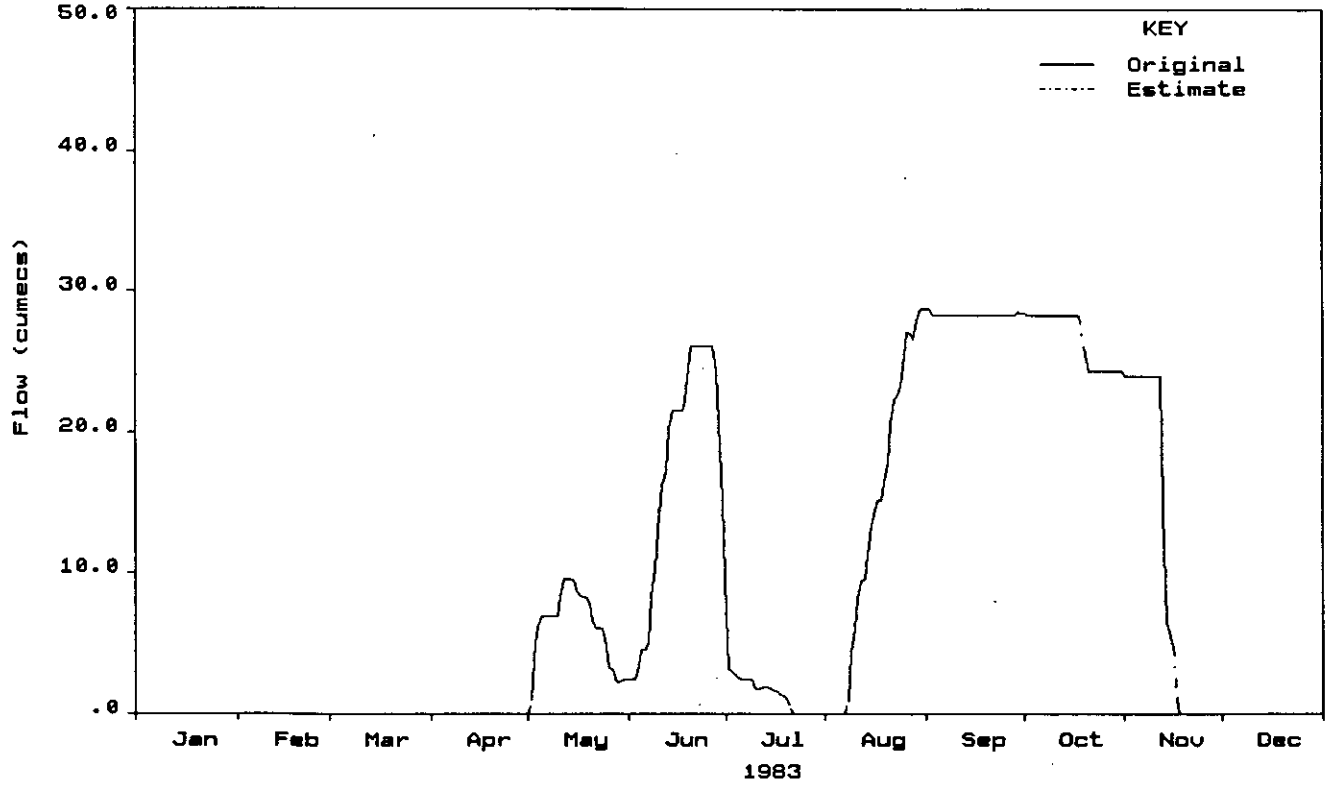


Supply canal

1982

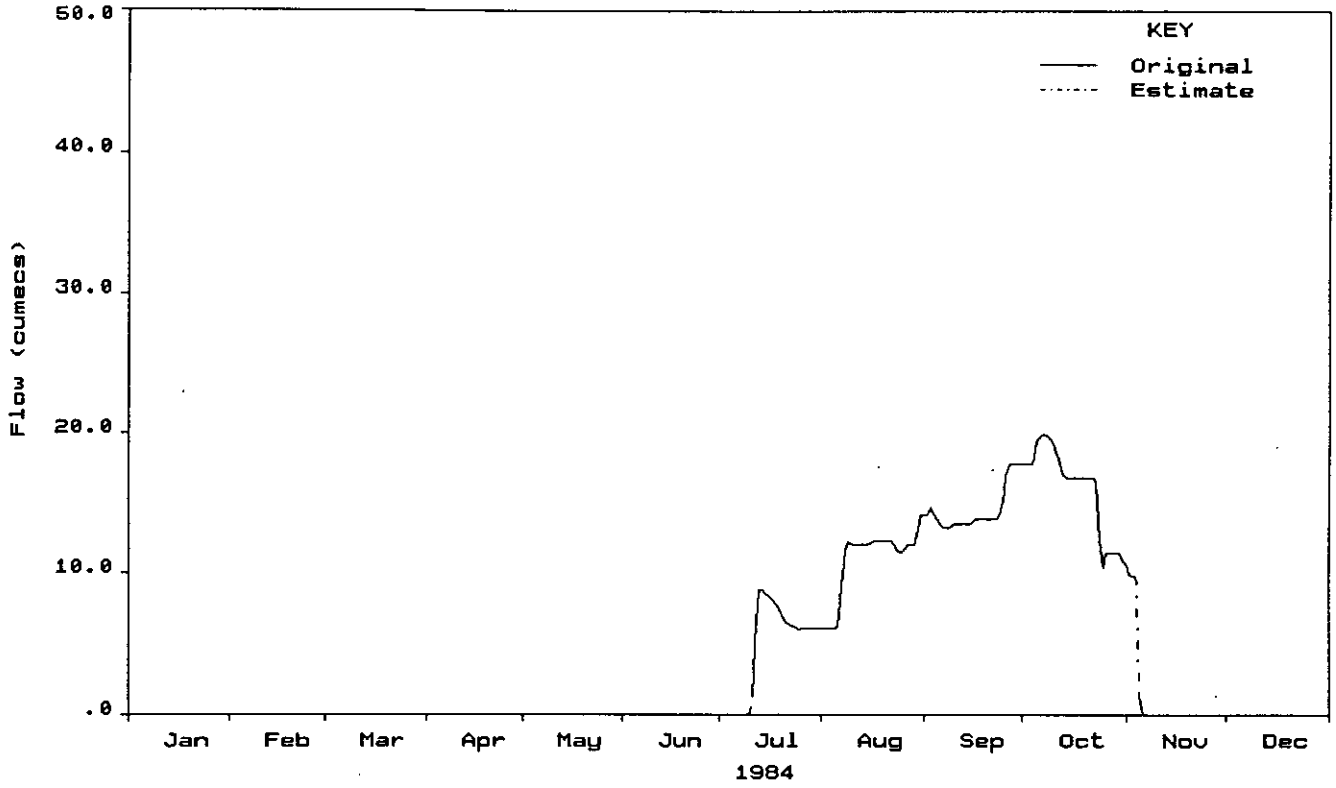


1983

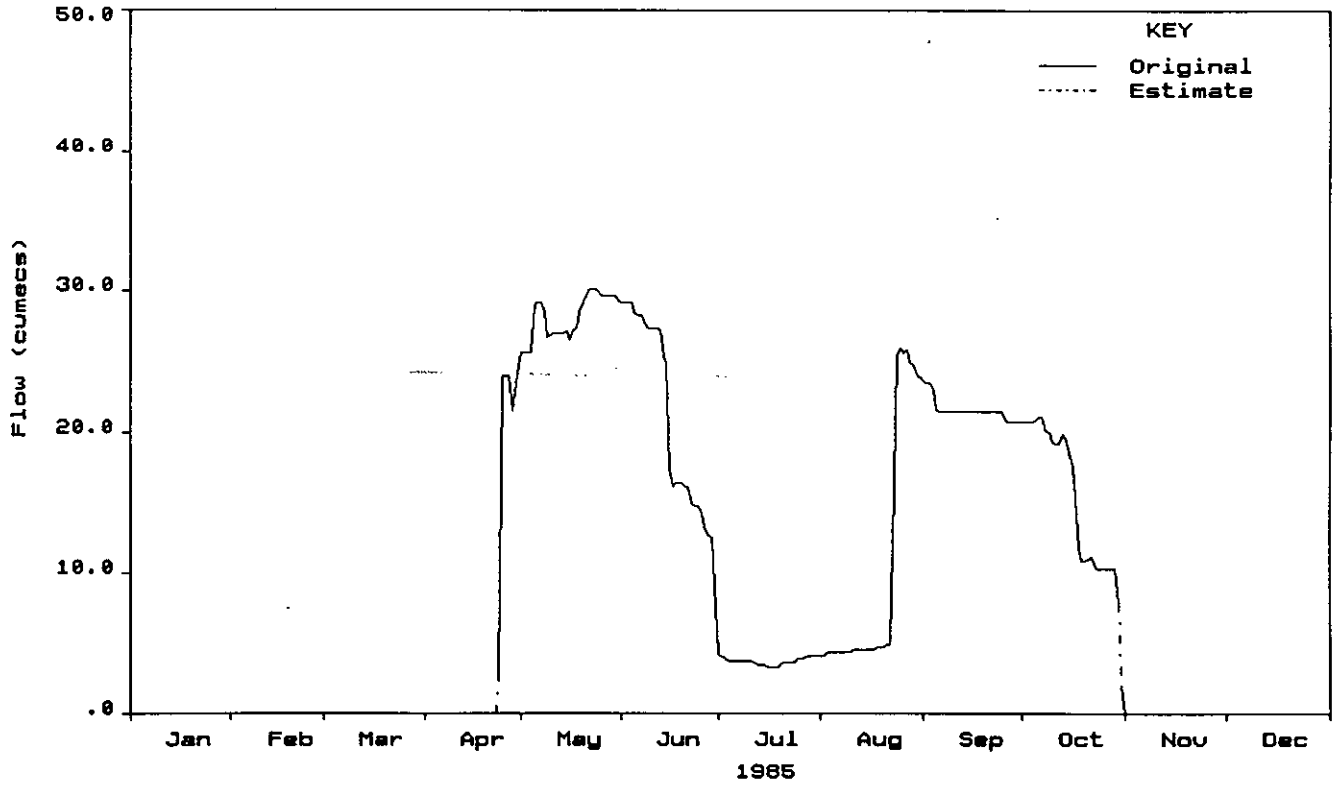


Supply canal

1984

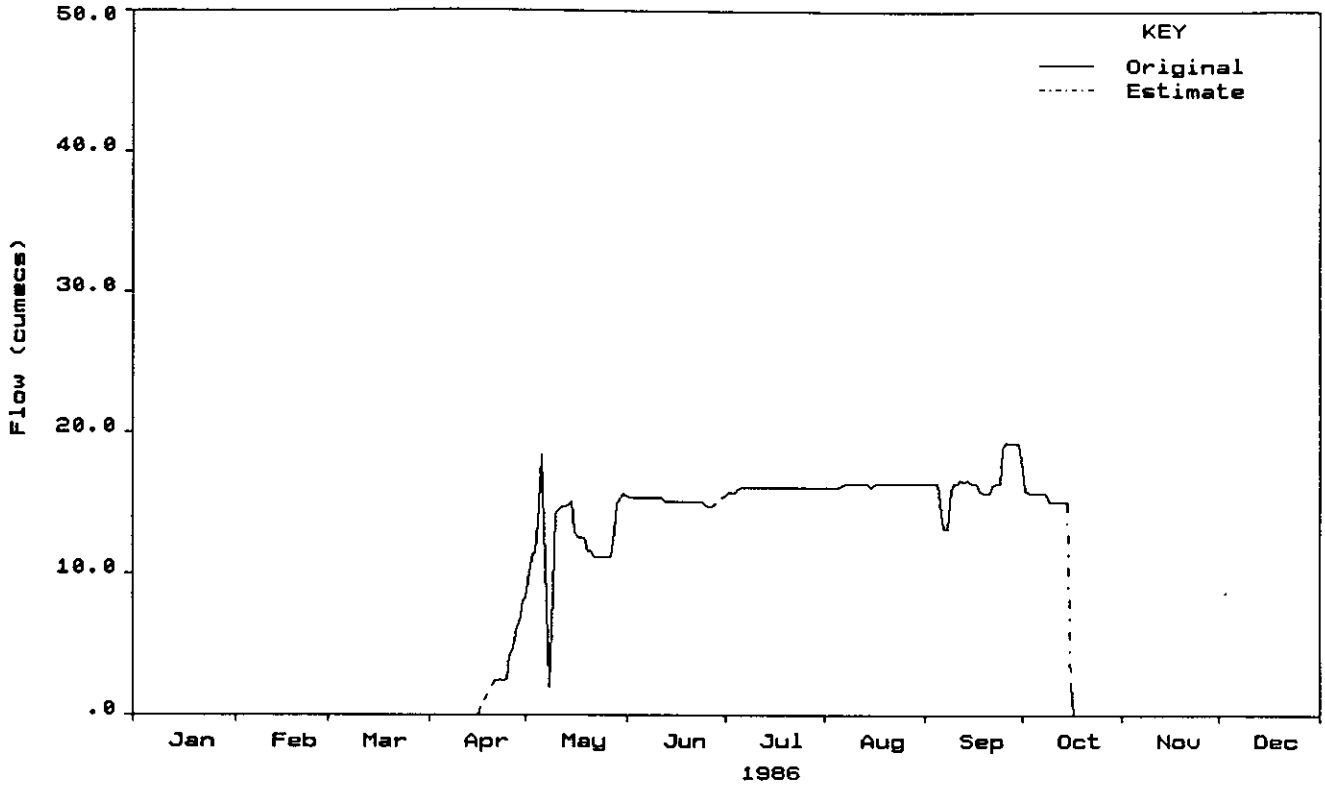


1985

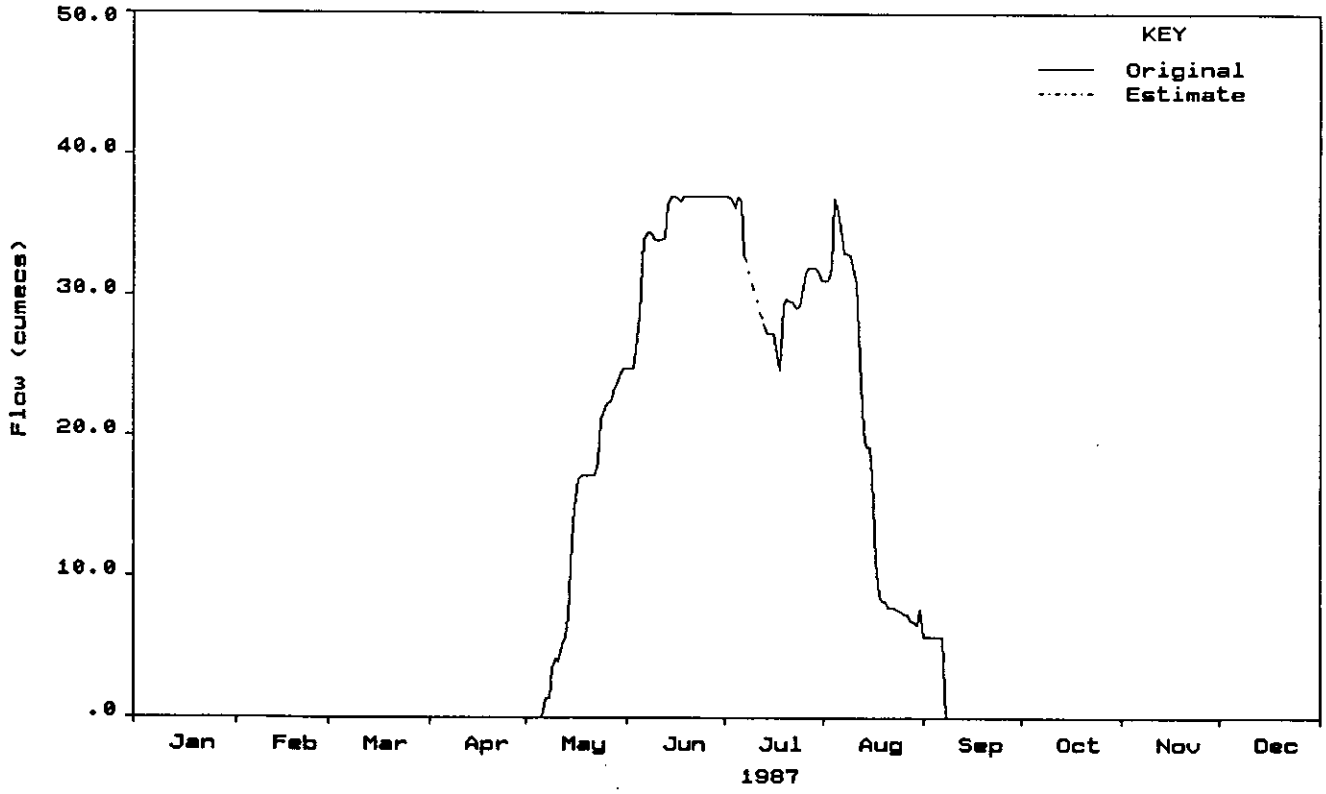


Supply canal

1986

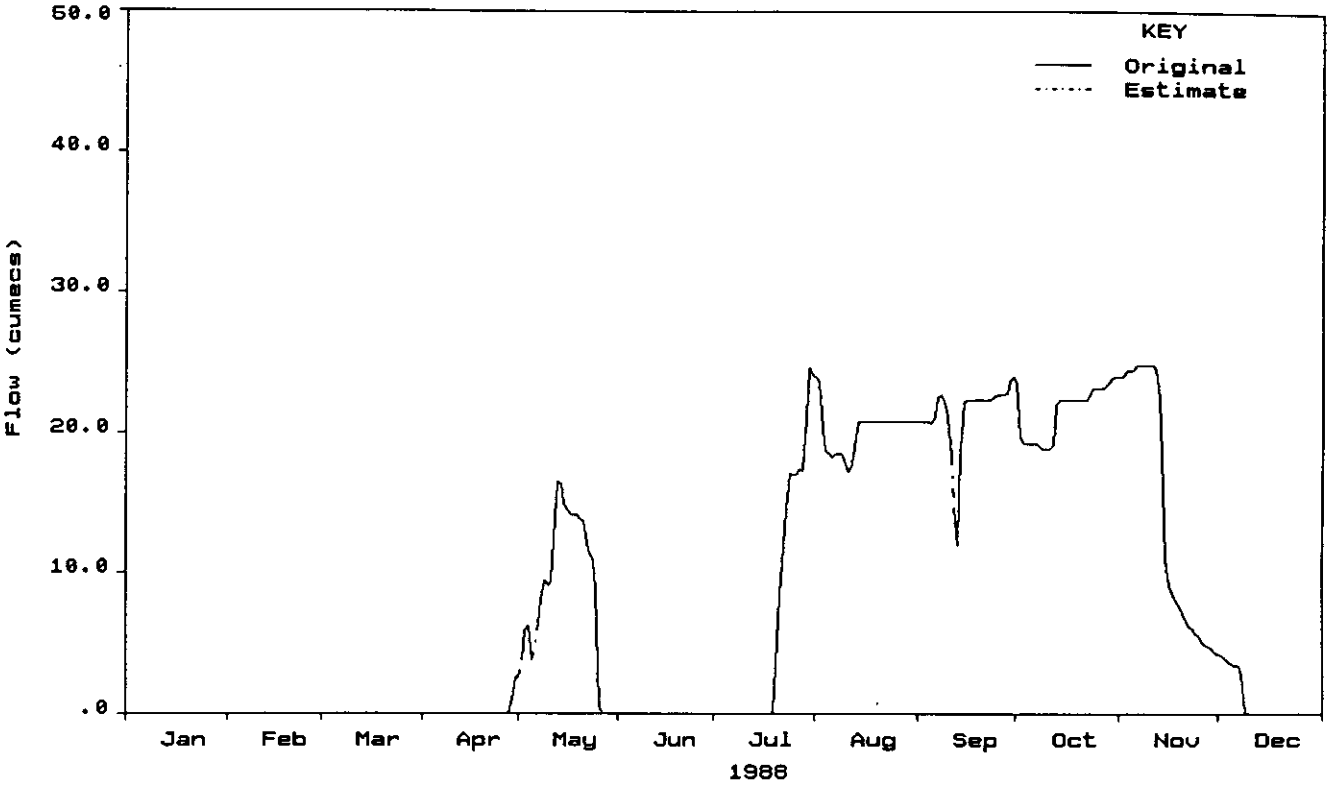


1987

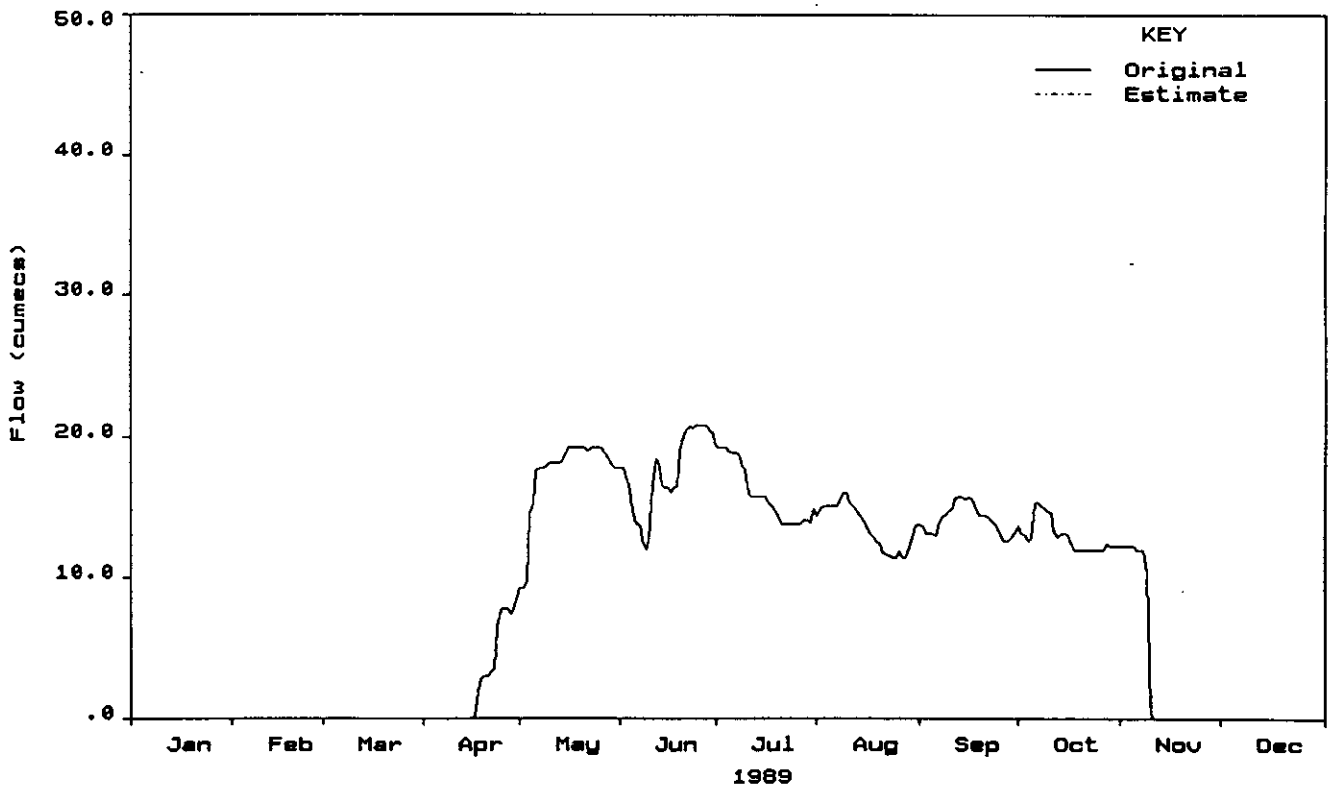


Supply canal

1988



1989

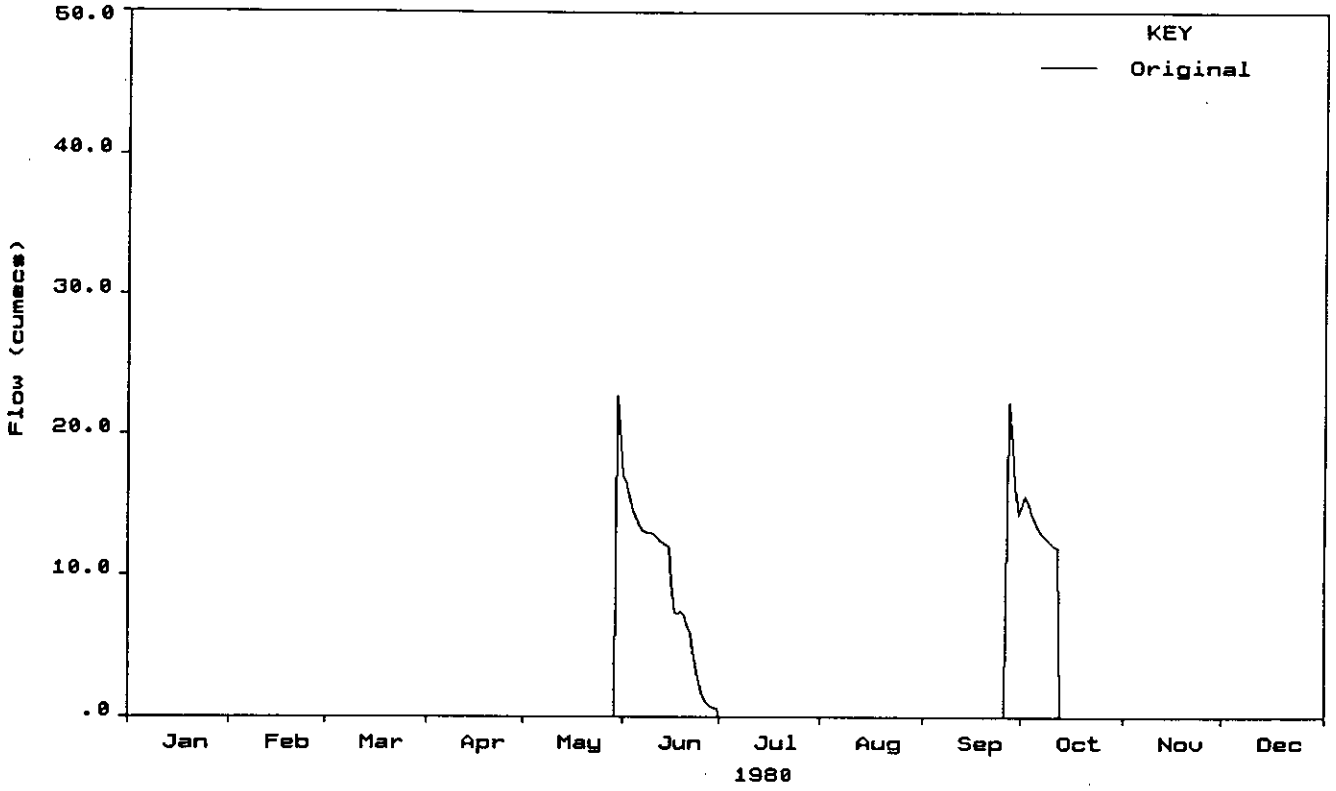


OUTLET CANAL

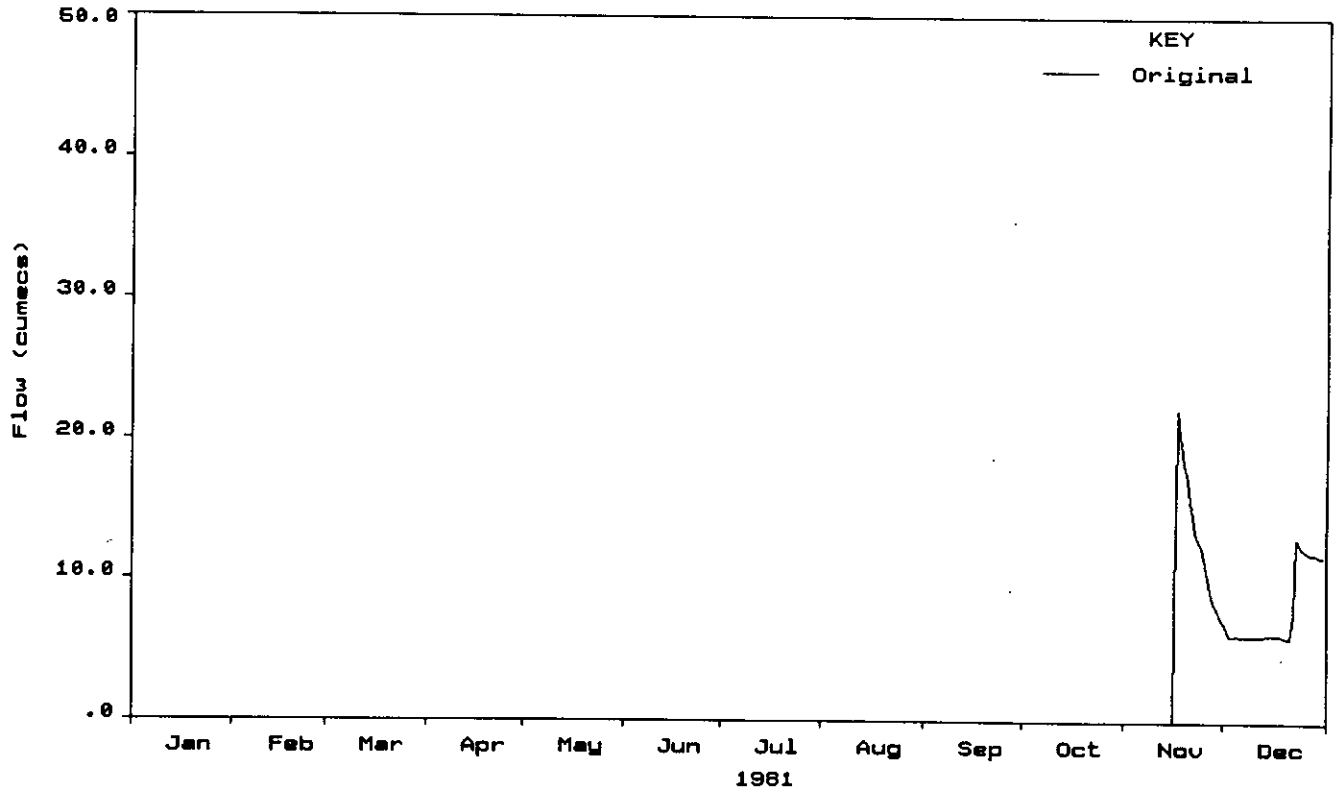
1980 - 1989

Outlet canal

1980

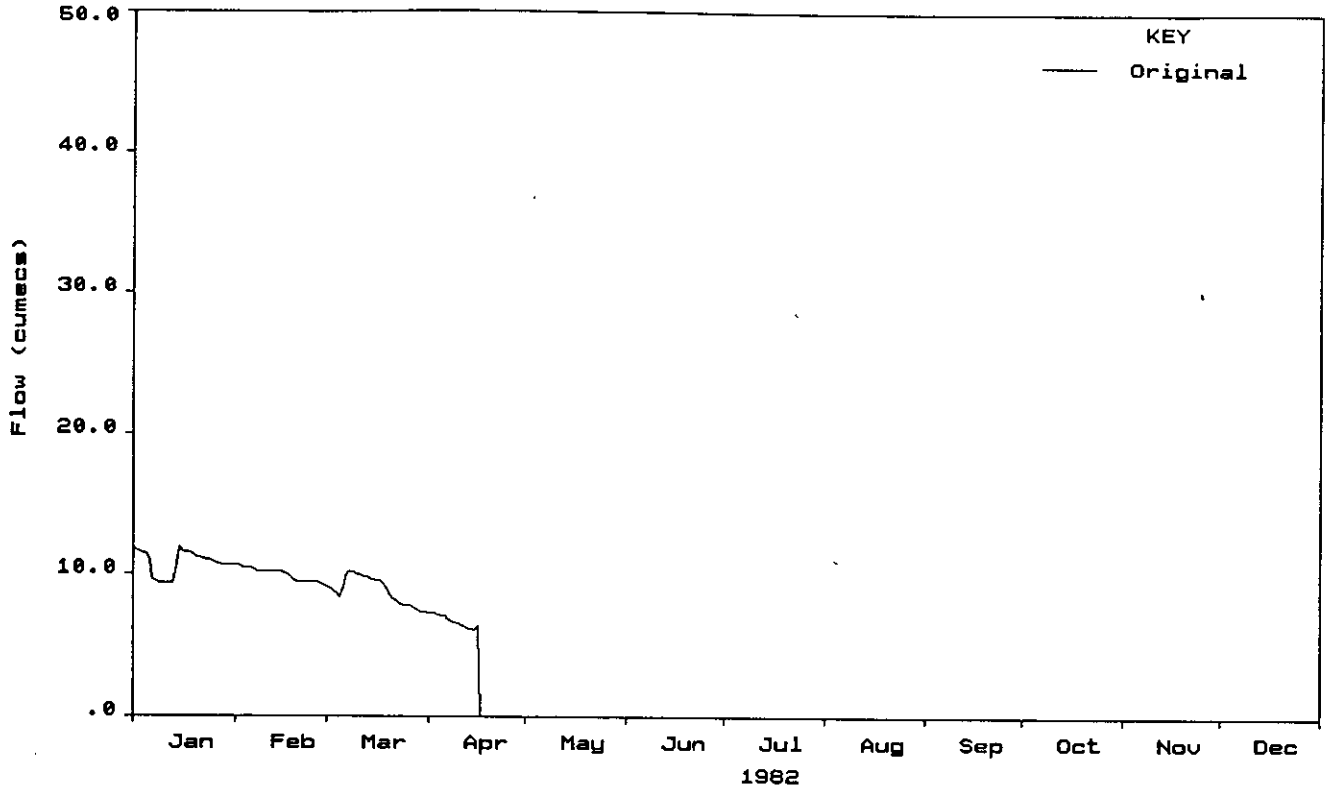


1981

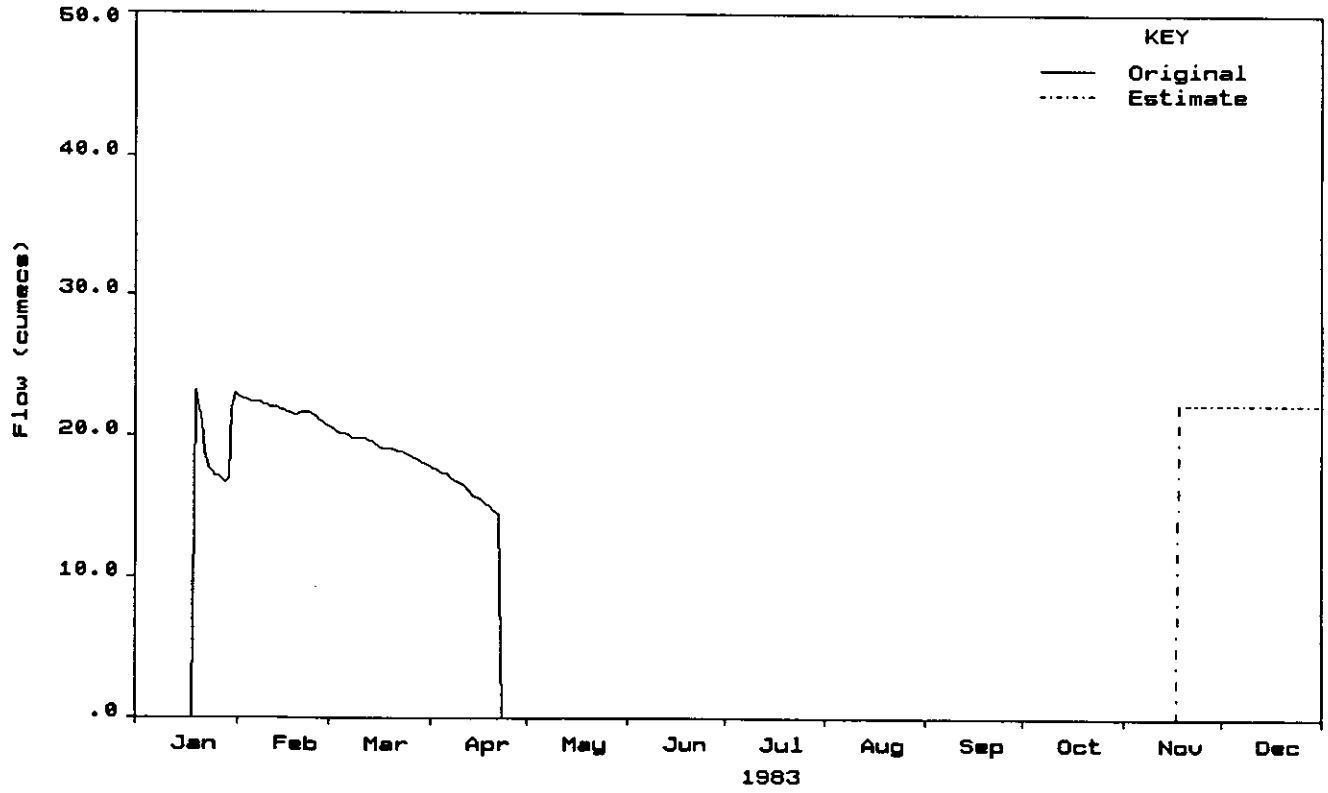


Outlet canal

1982

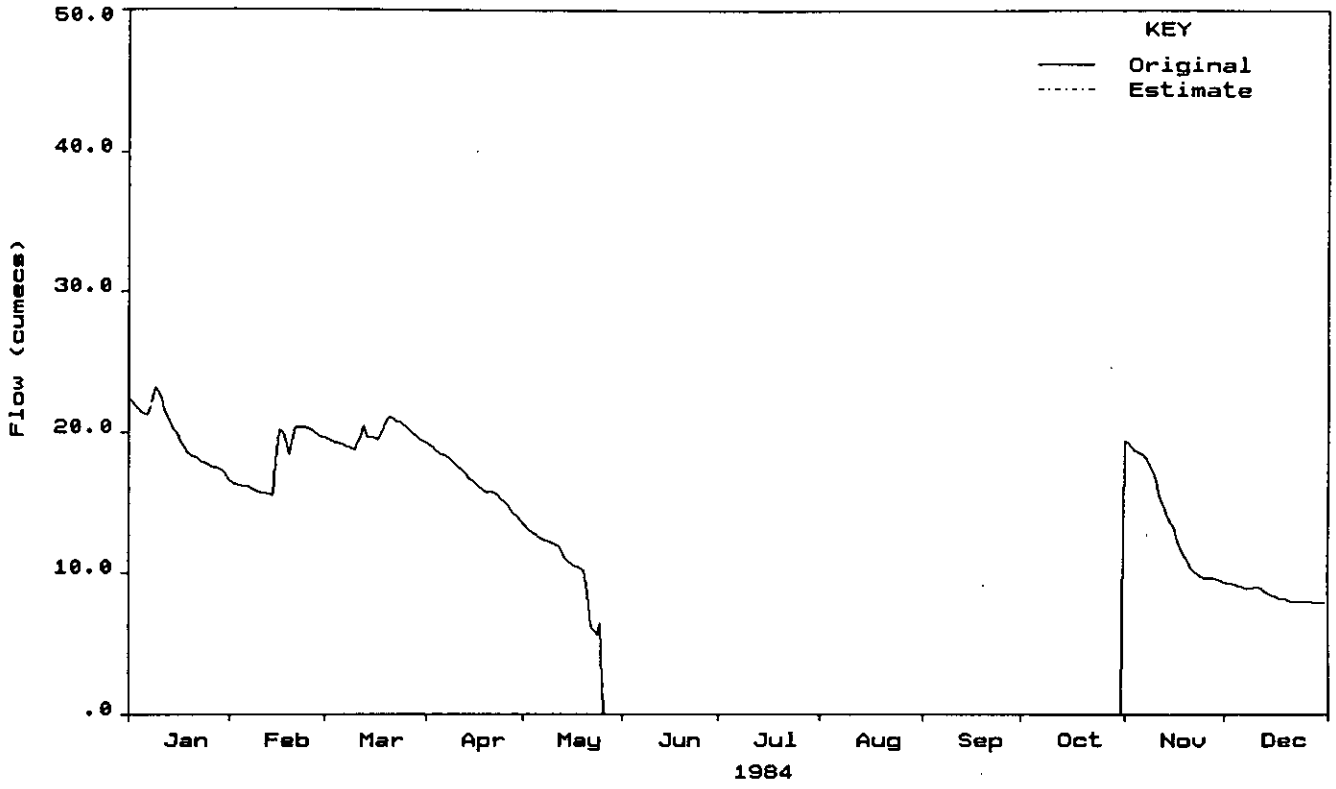


1983

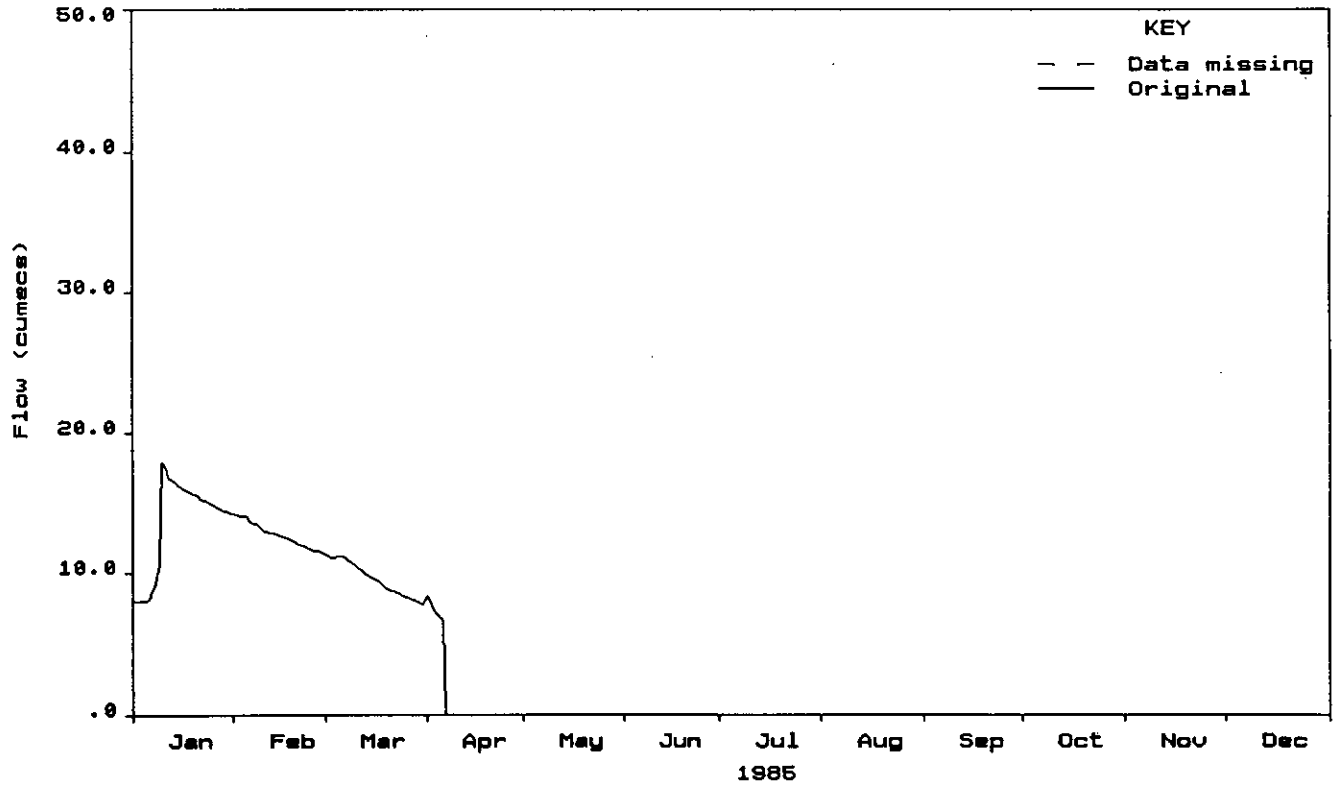


Outlet canal

1984

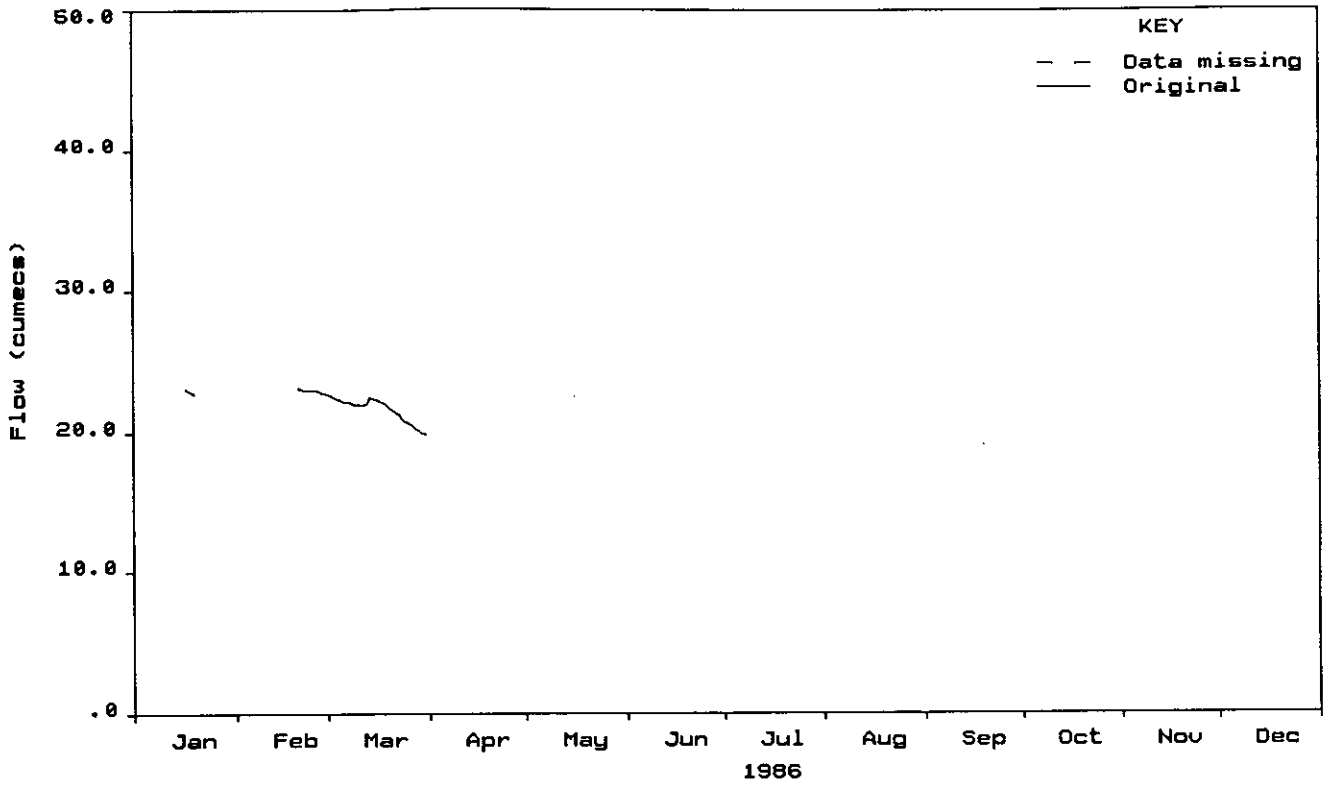


1985

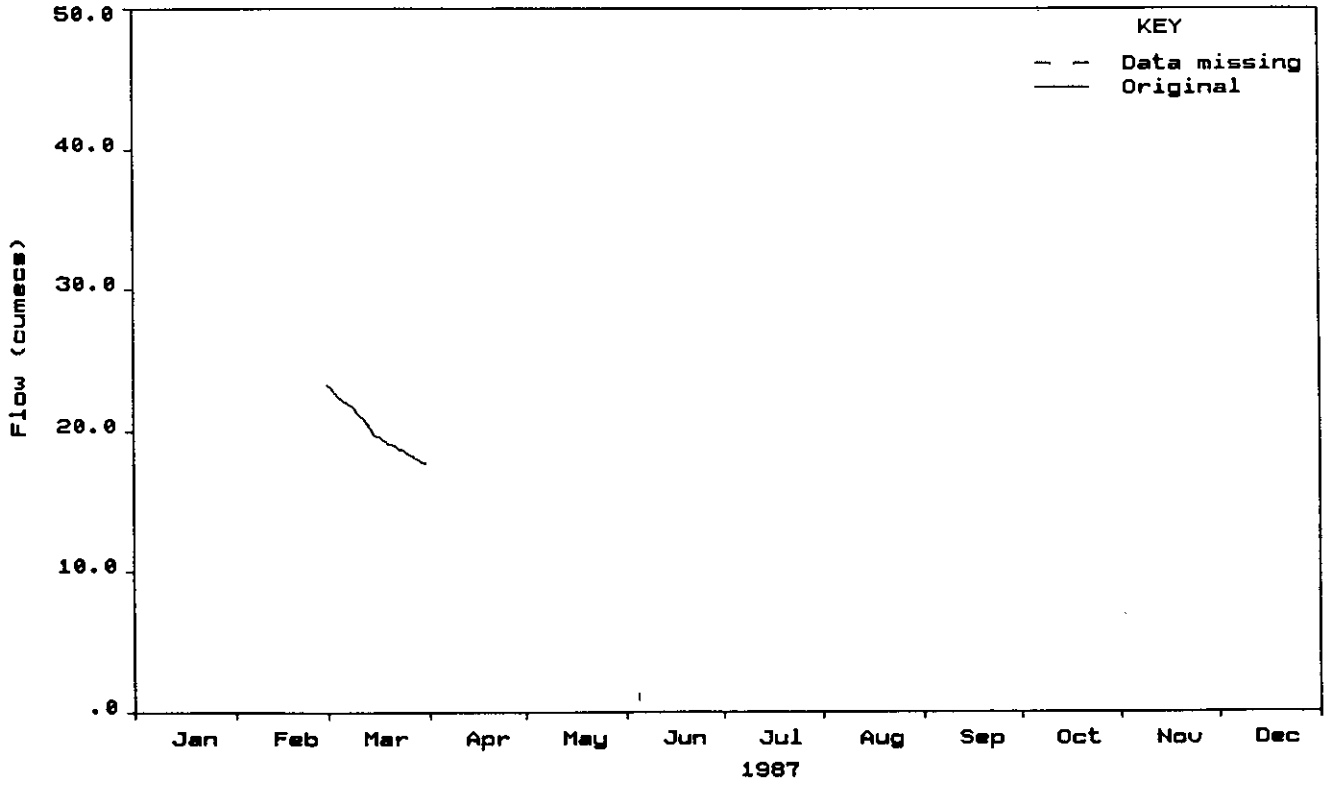


Outlet canal

1986

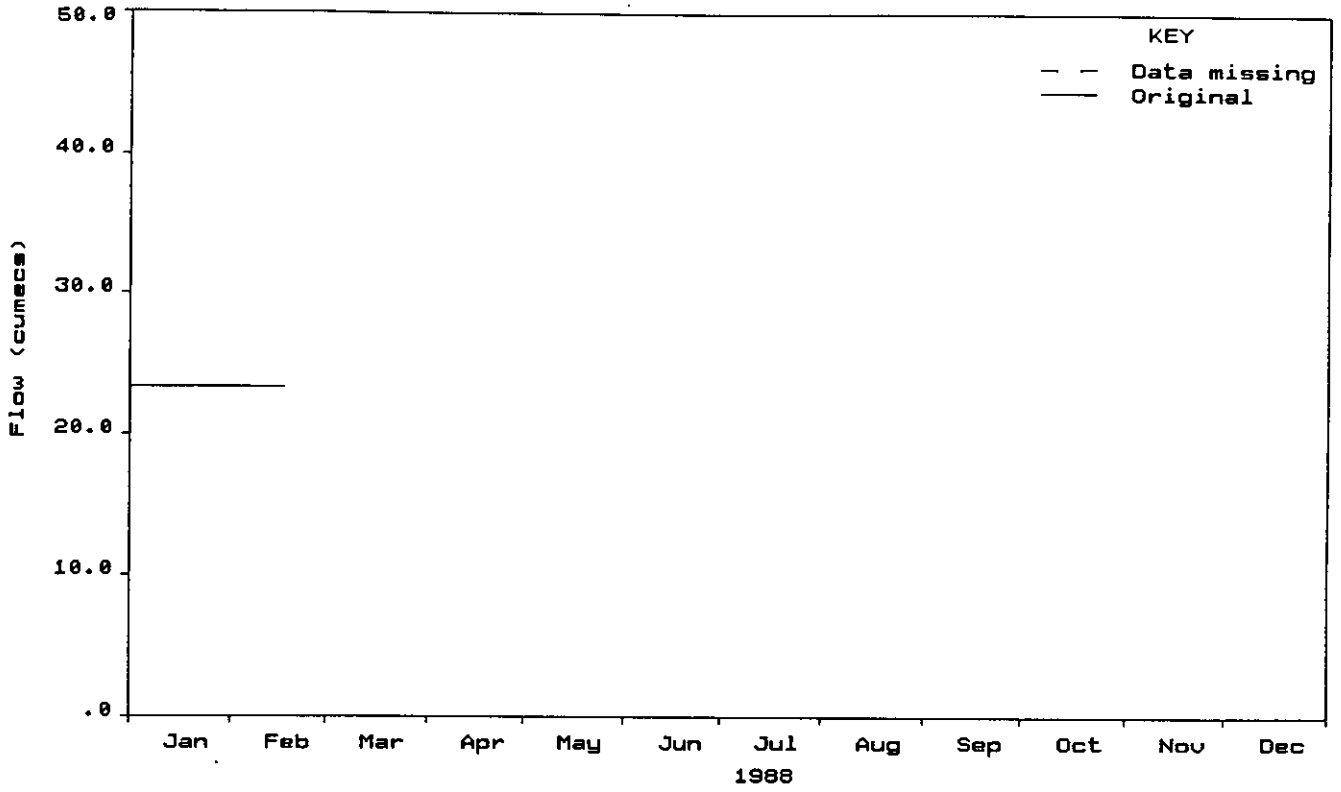


1987

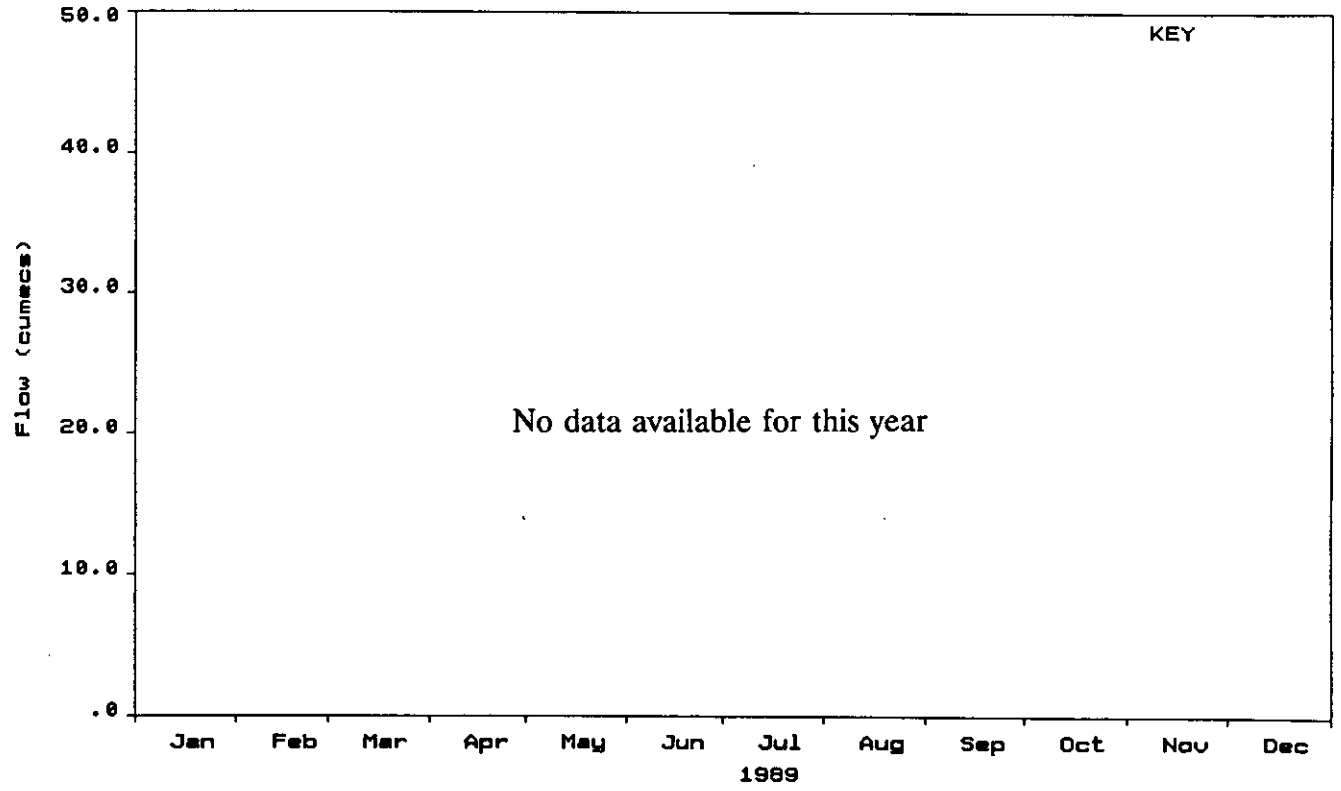


Outlet canal

1988



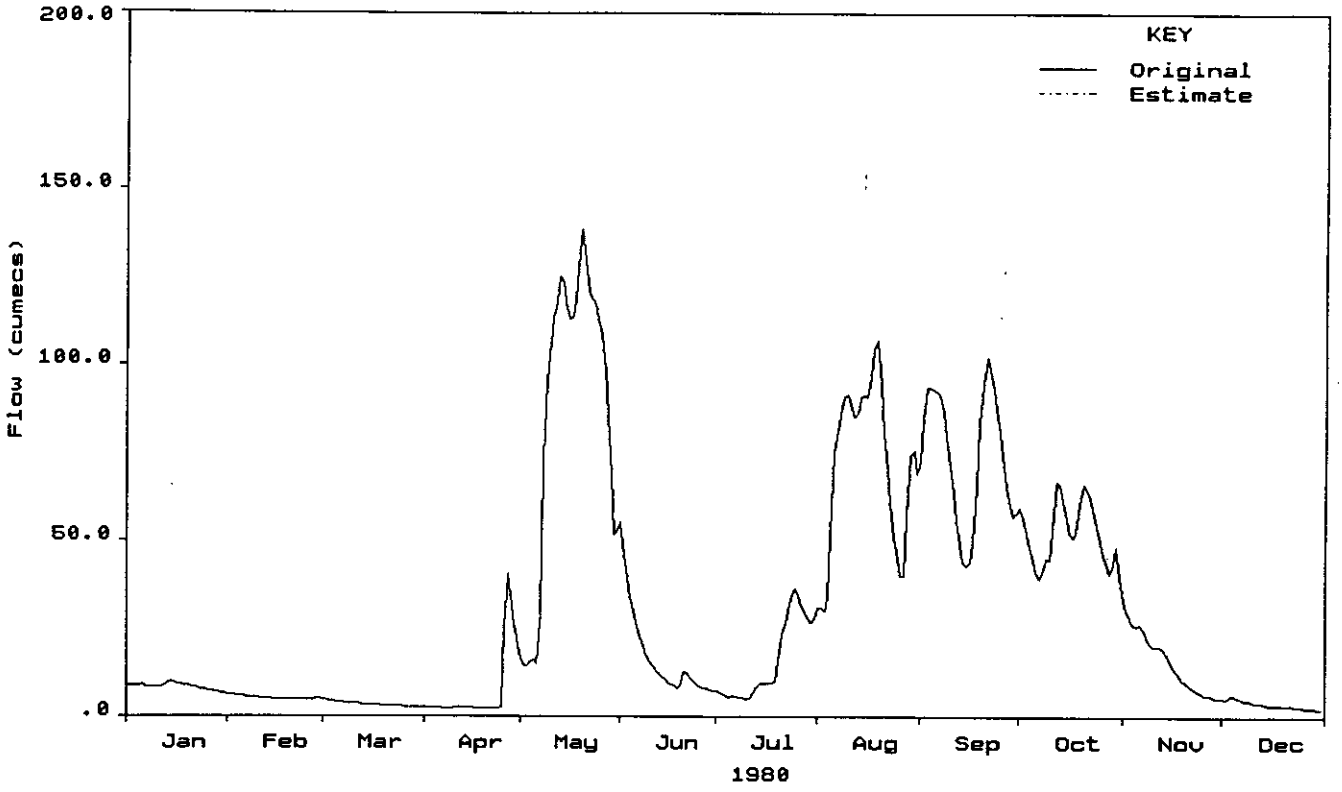
1989



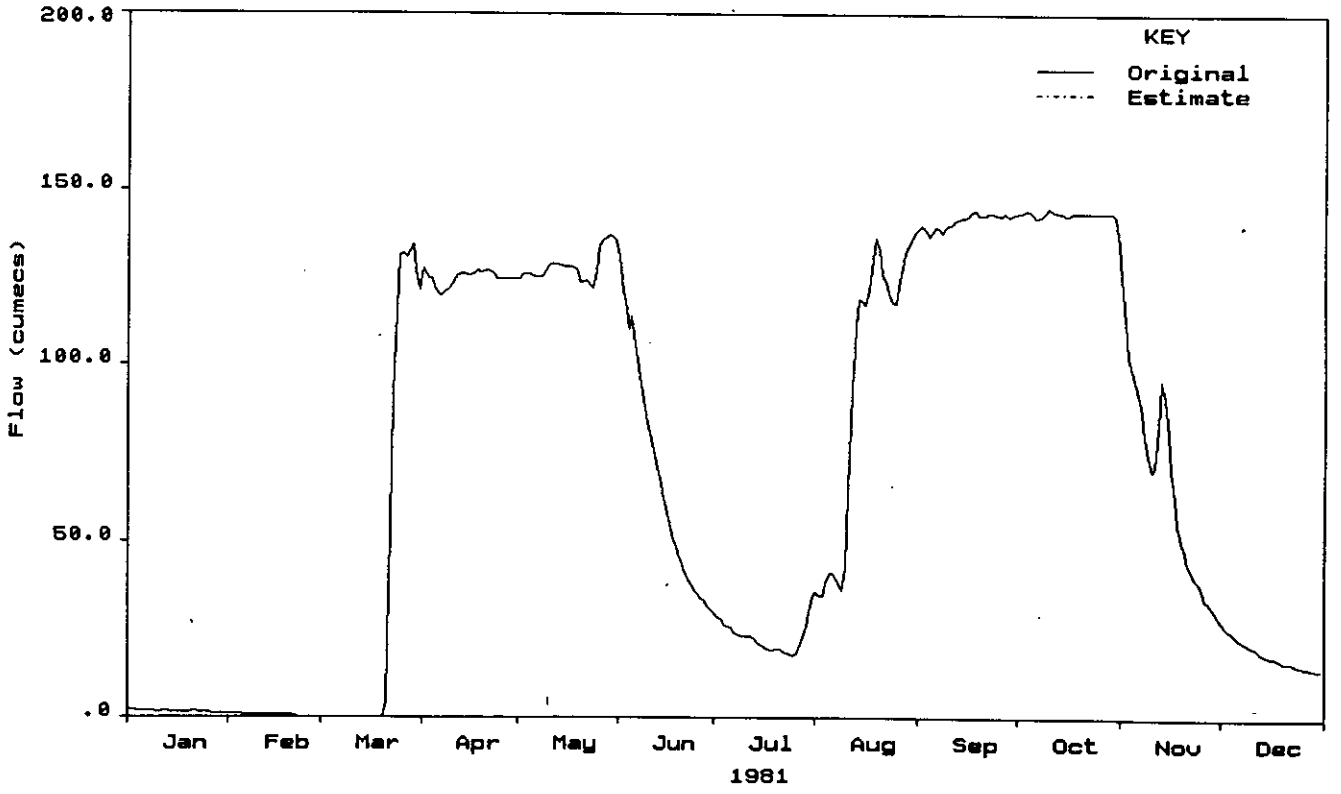
SHEBELLI DOWNSTREAM OF SABUUN BARRAGE

1980 - 1989

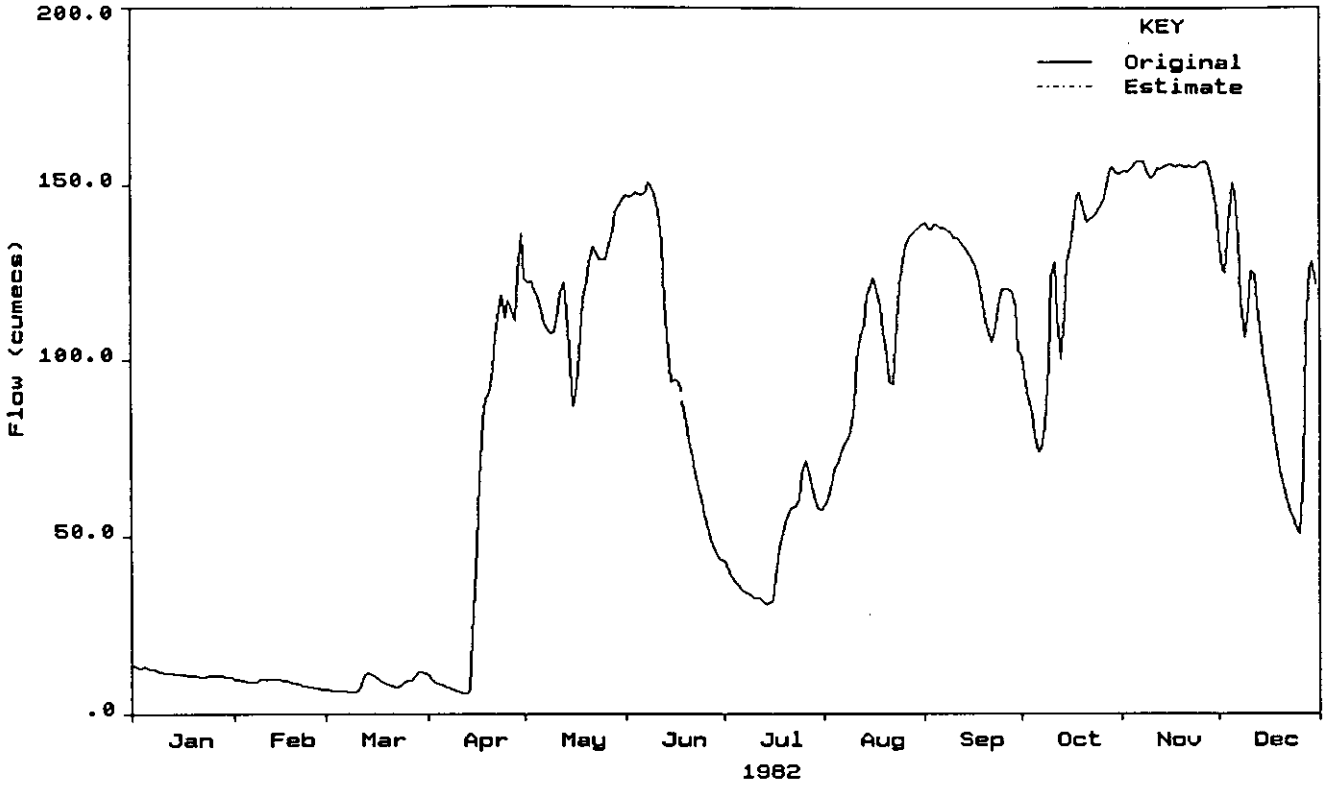
Shebelli downstream of Sabuun barrage 1980



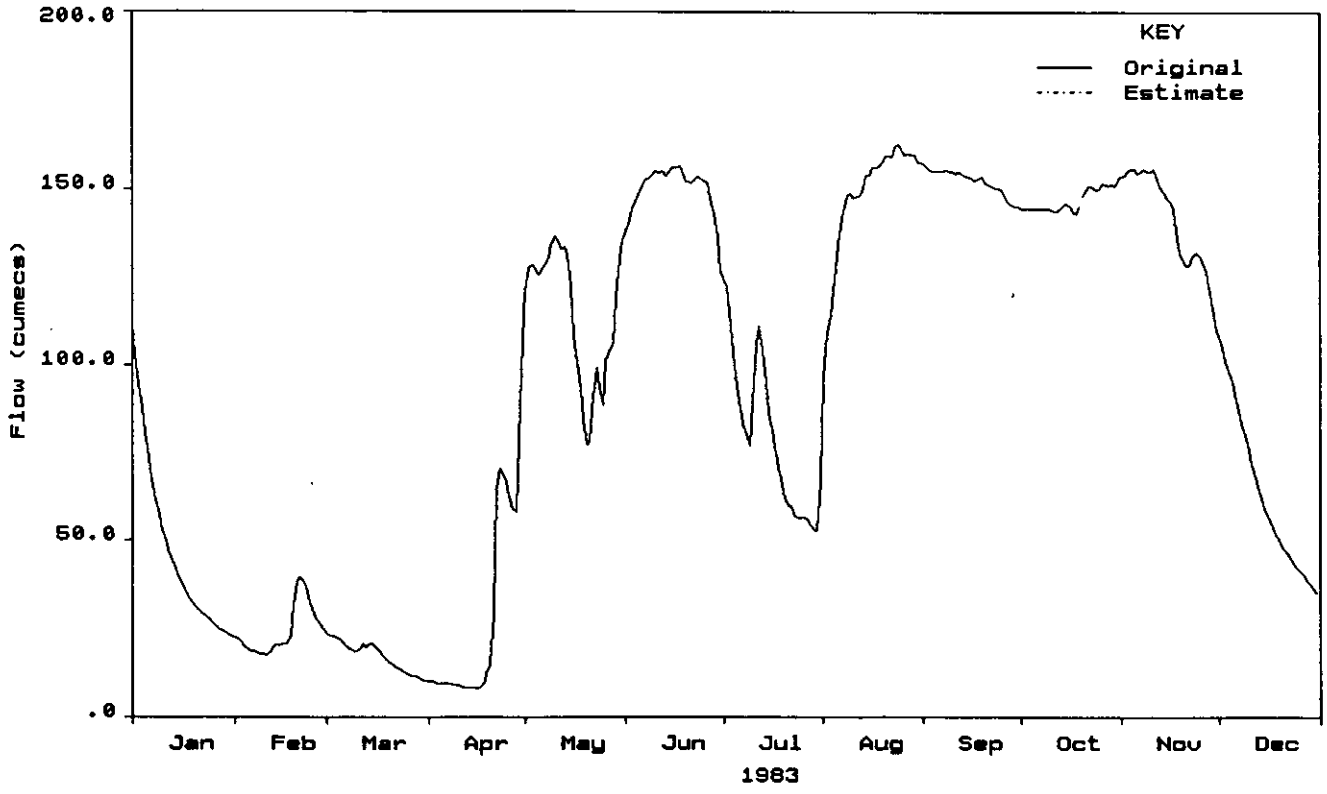
1981



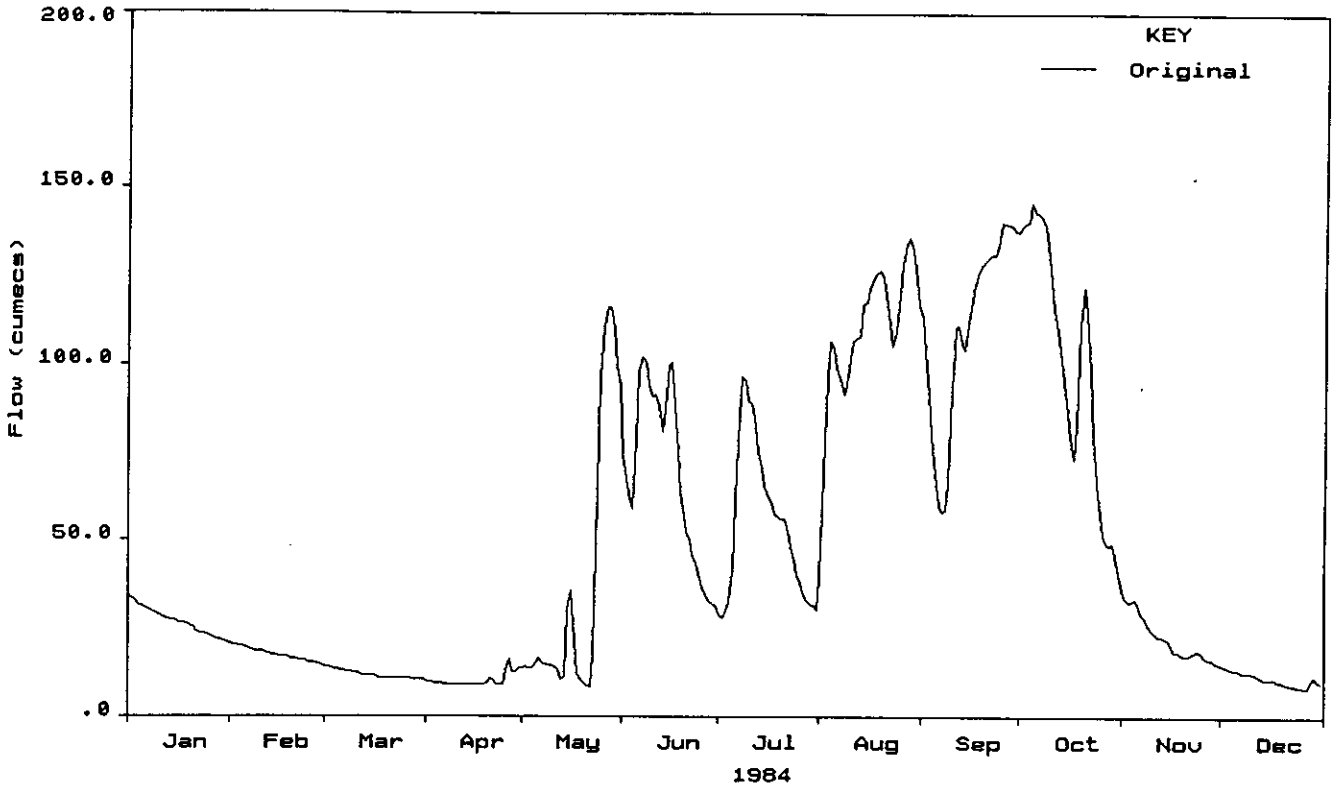
Shebelli downstream of Sabuun barrage 1982



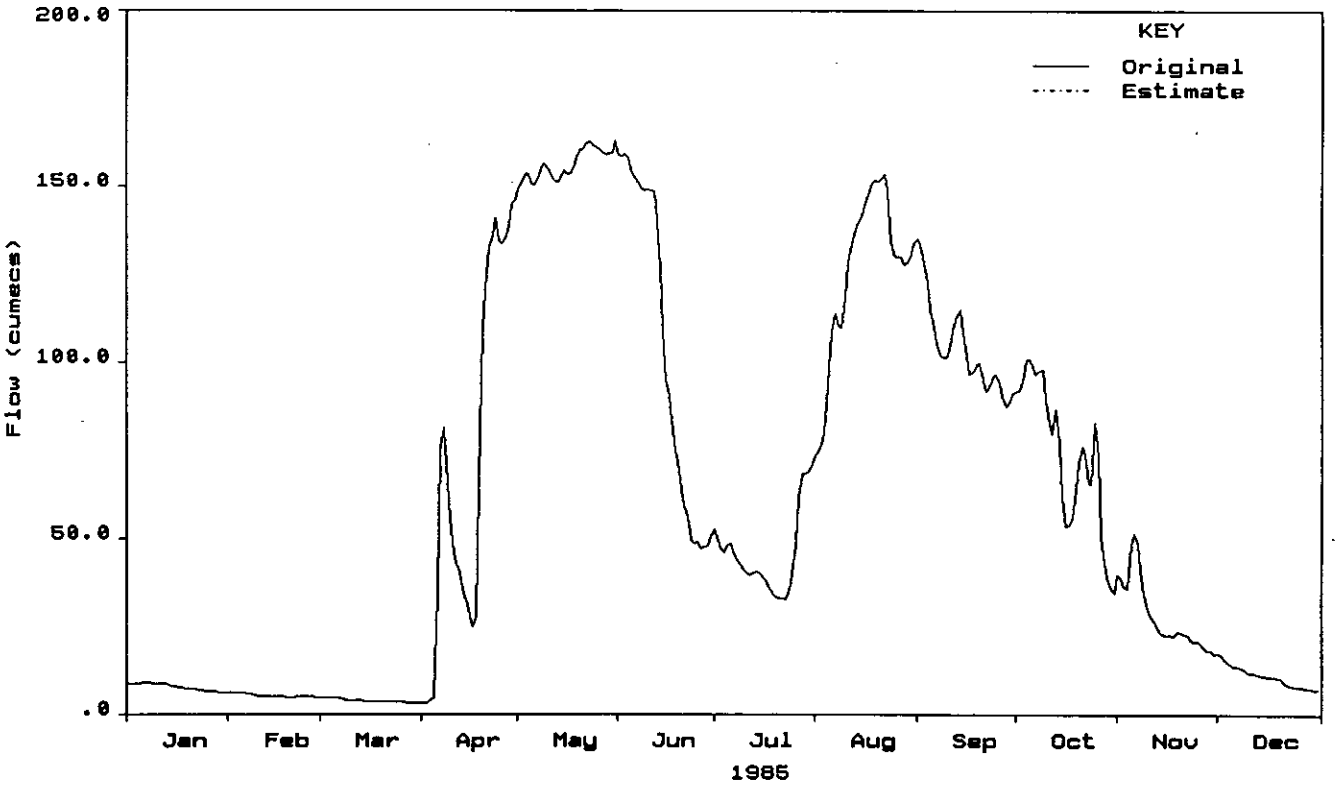
1983



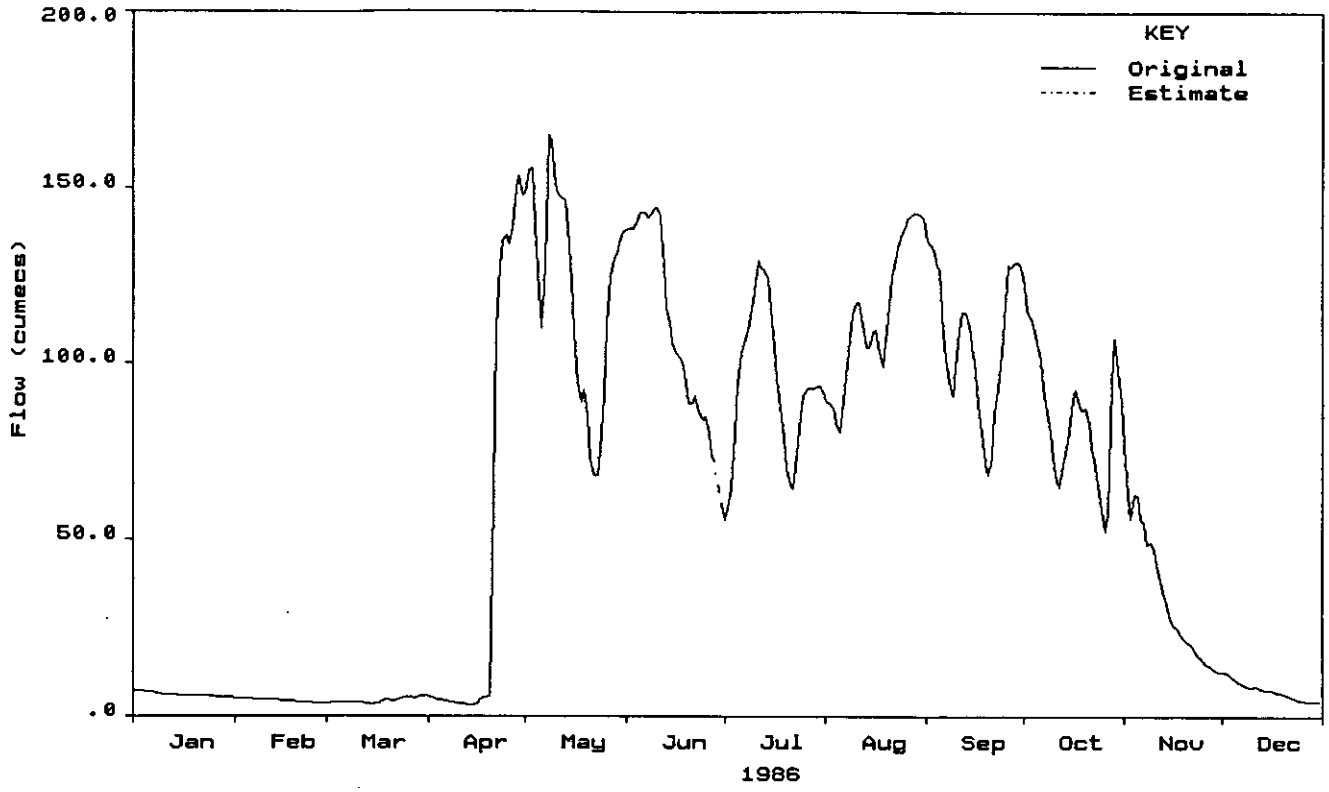
Shebelli downstream of Sabuun barrage 1984



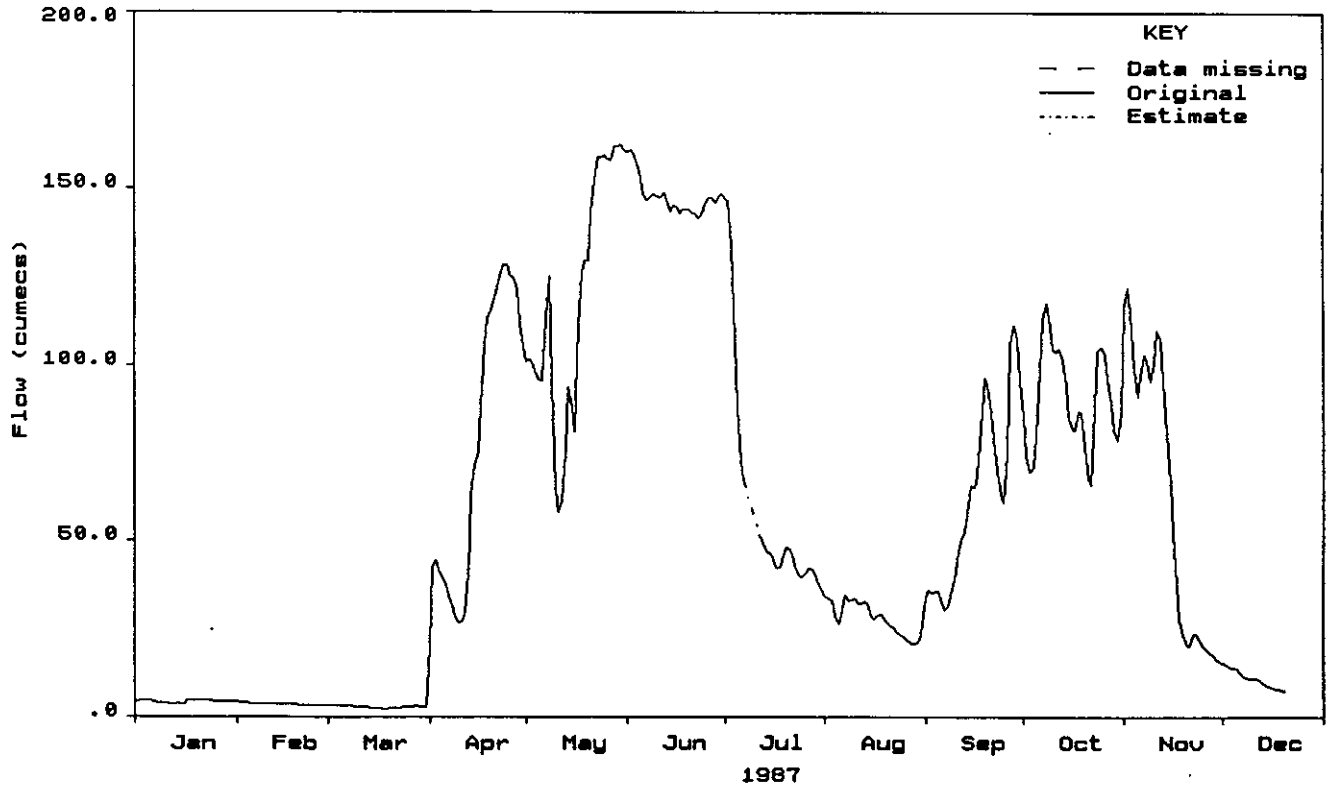
1985



Shebelli downstream of Sabuun barrage 1986

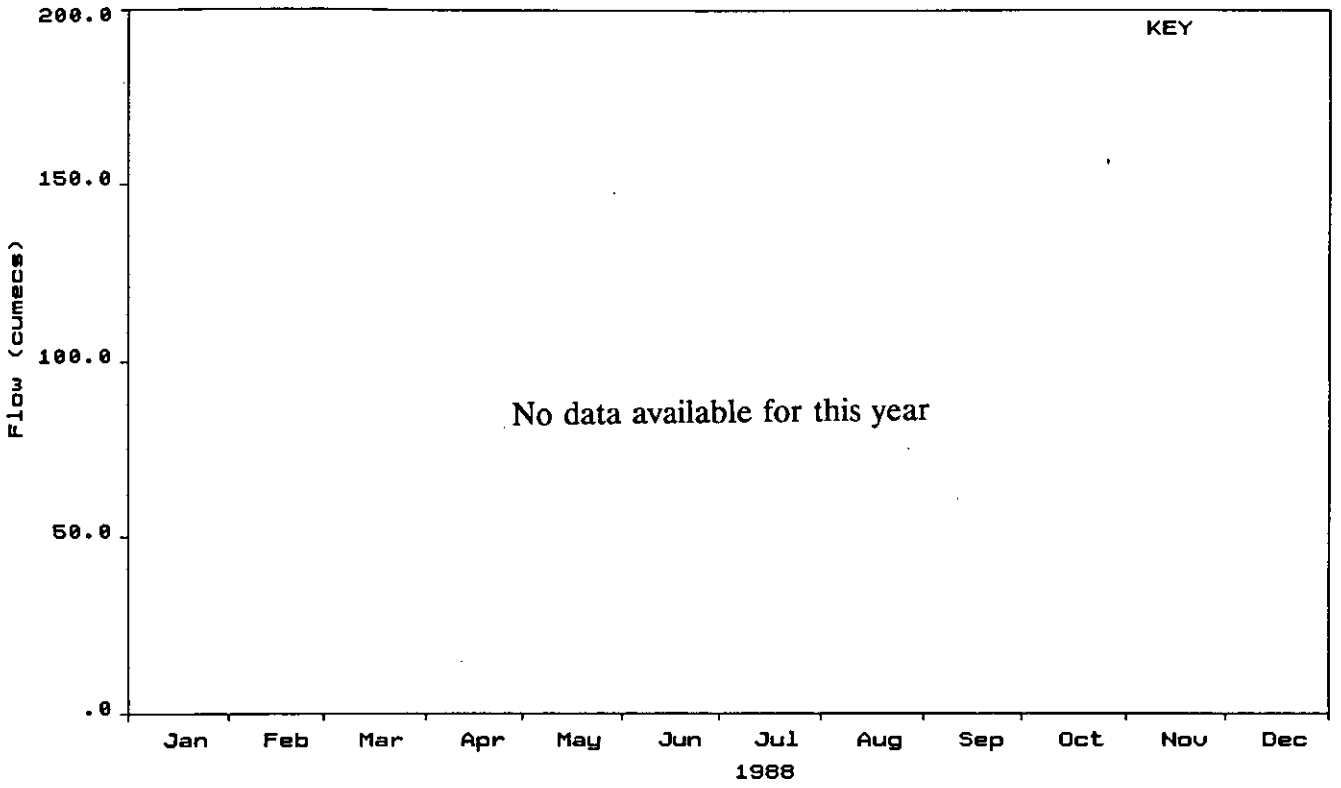


1987



Shebelli downstream of Sabuun barrage

1988



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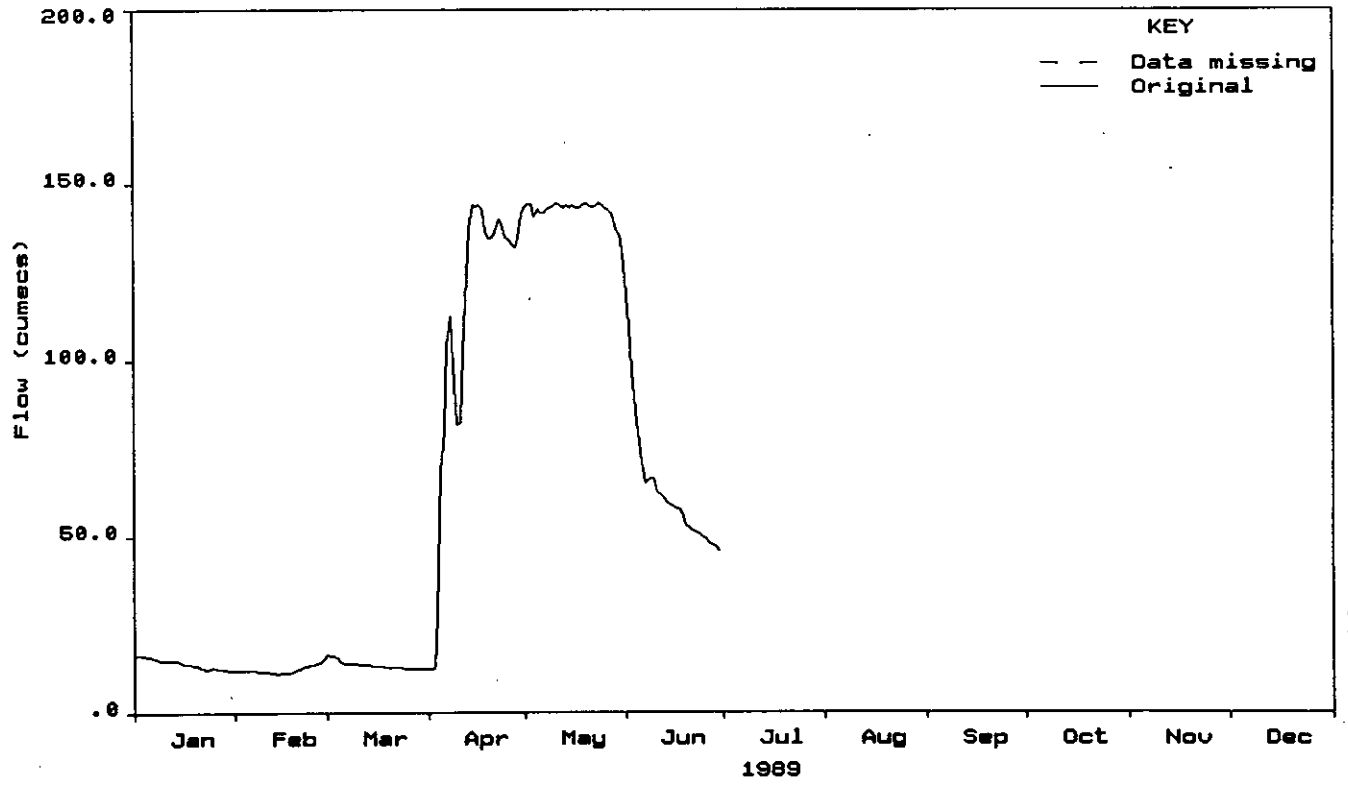
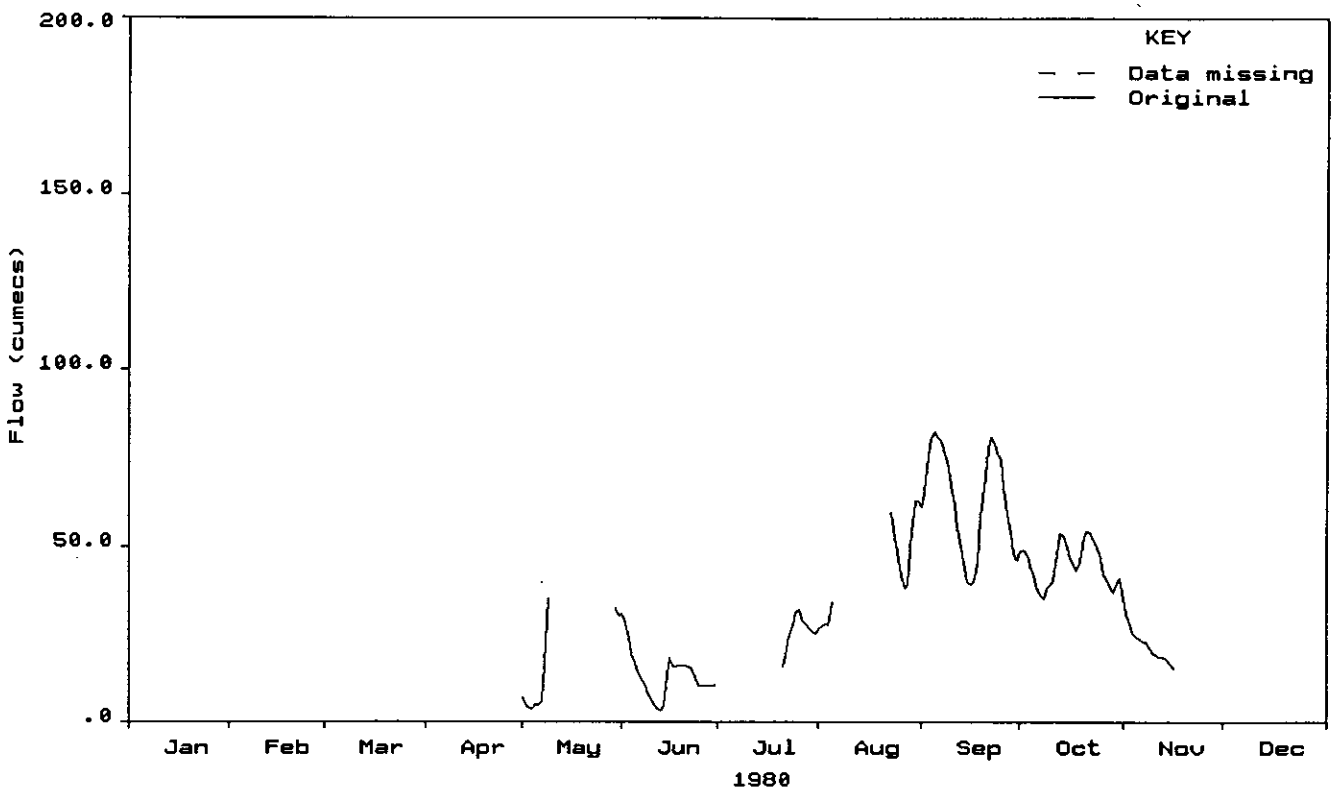


SHEBELLI DOWNSTREAM OF OUTLET CANAL

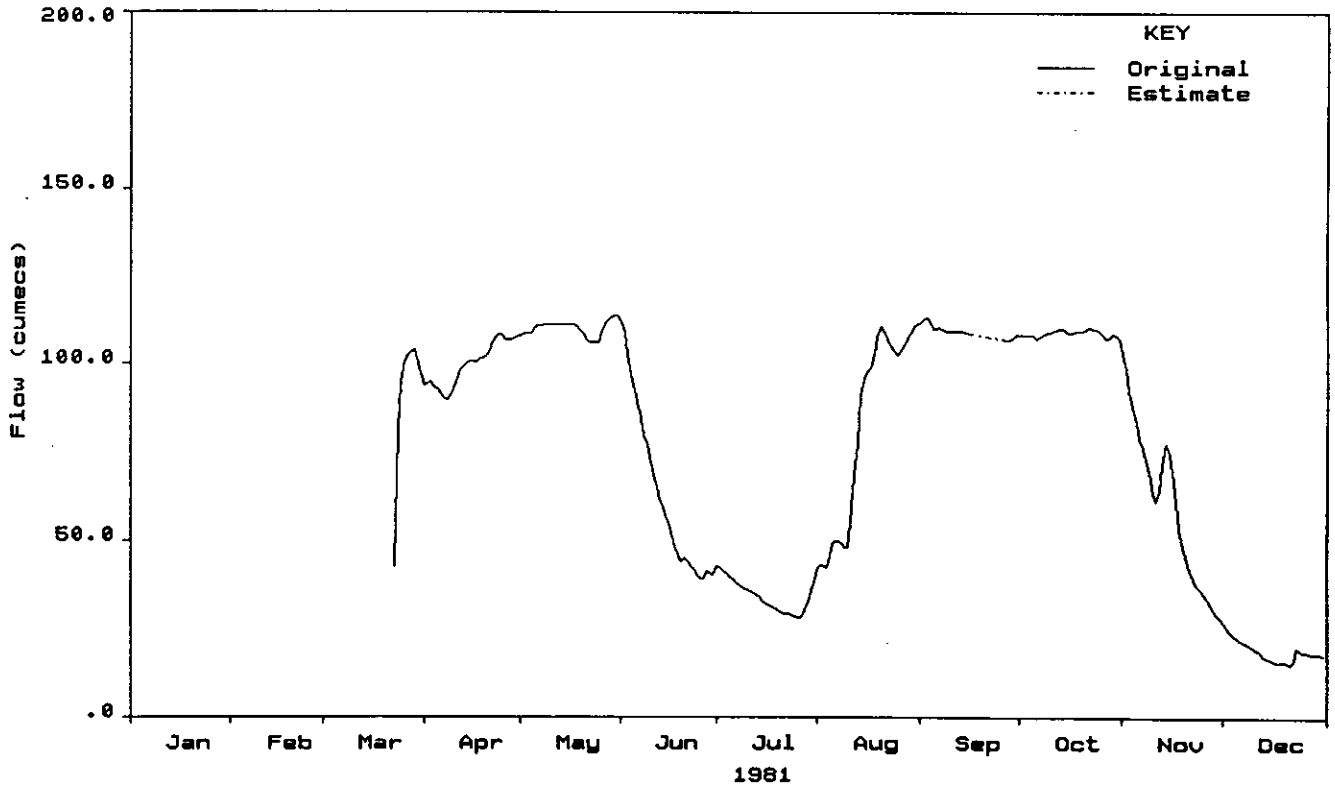
1980 - 1989

Shebelli downstream of outlet canal

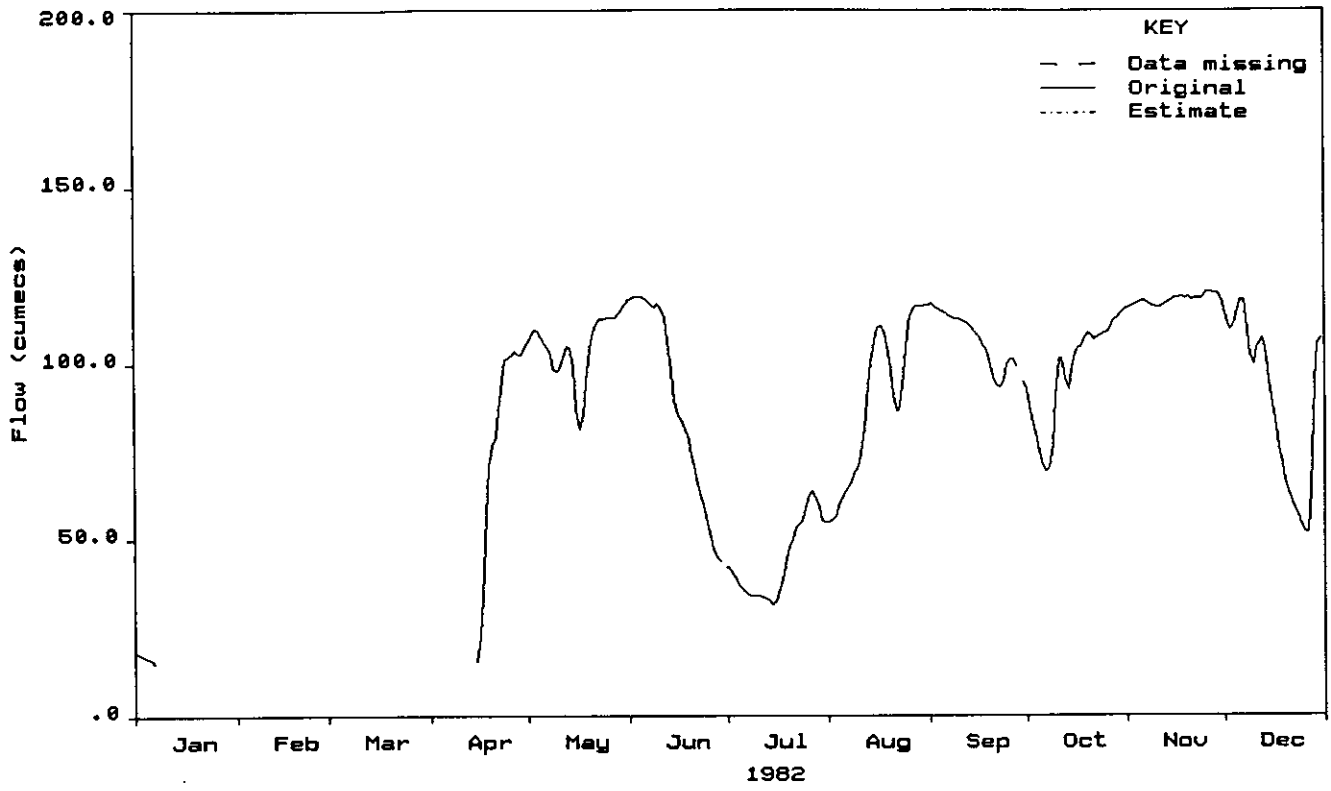
1980



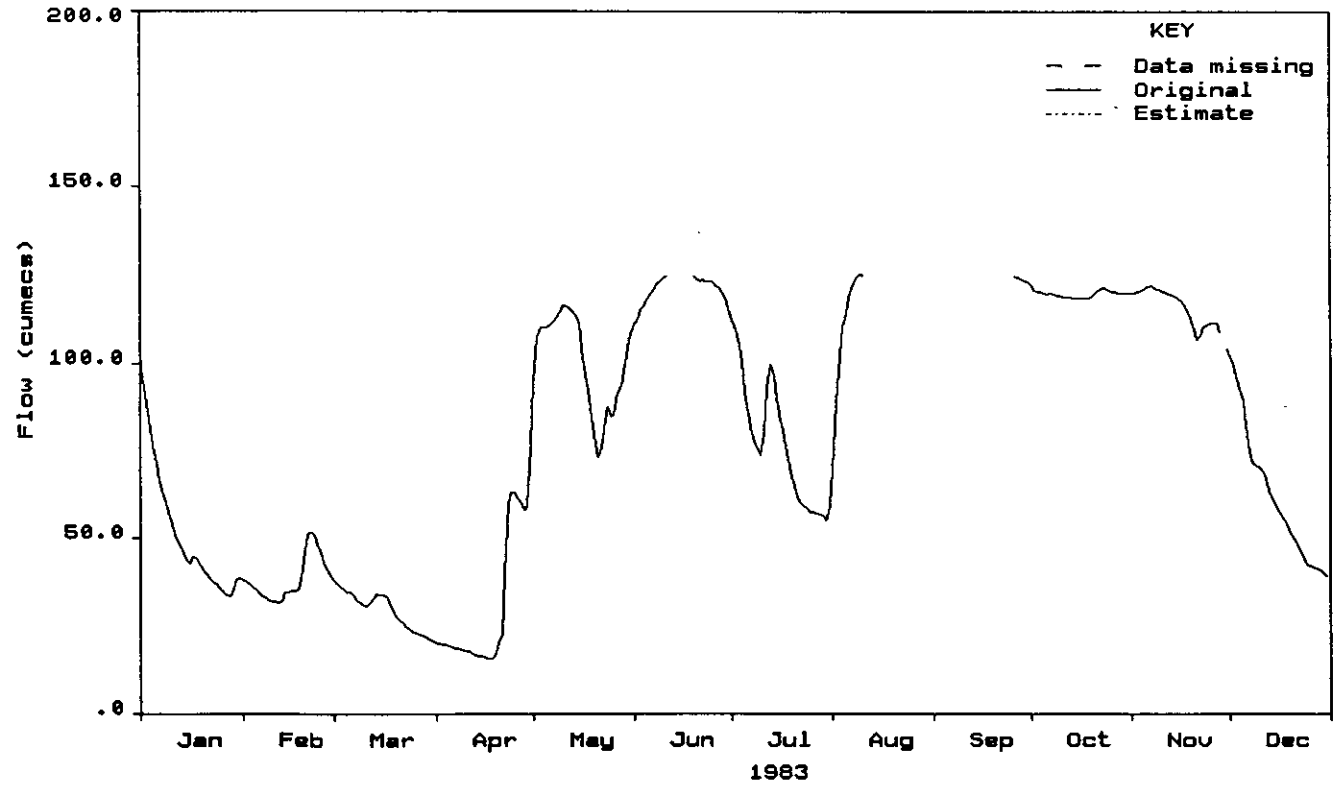
1981



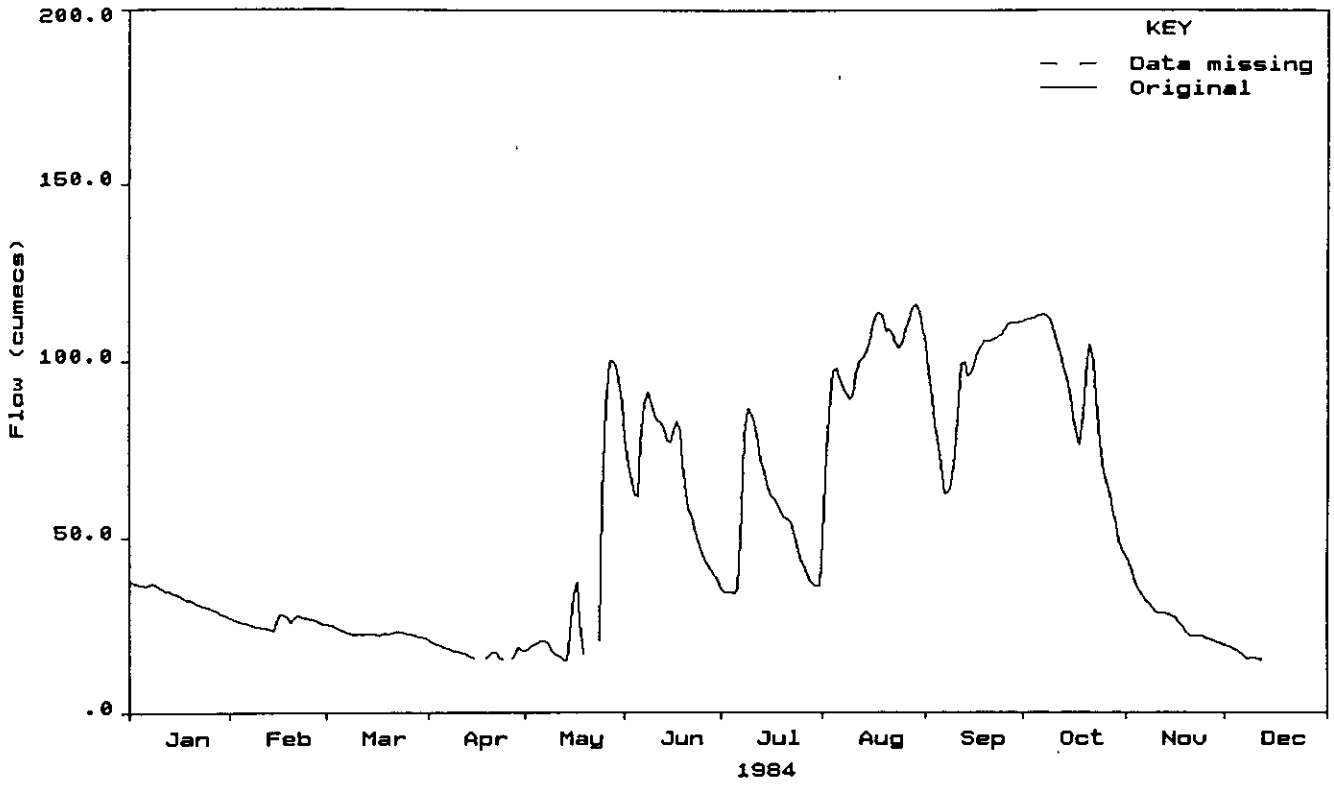
Shebelli downstream of outlet canal 1982



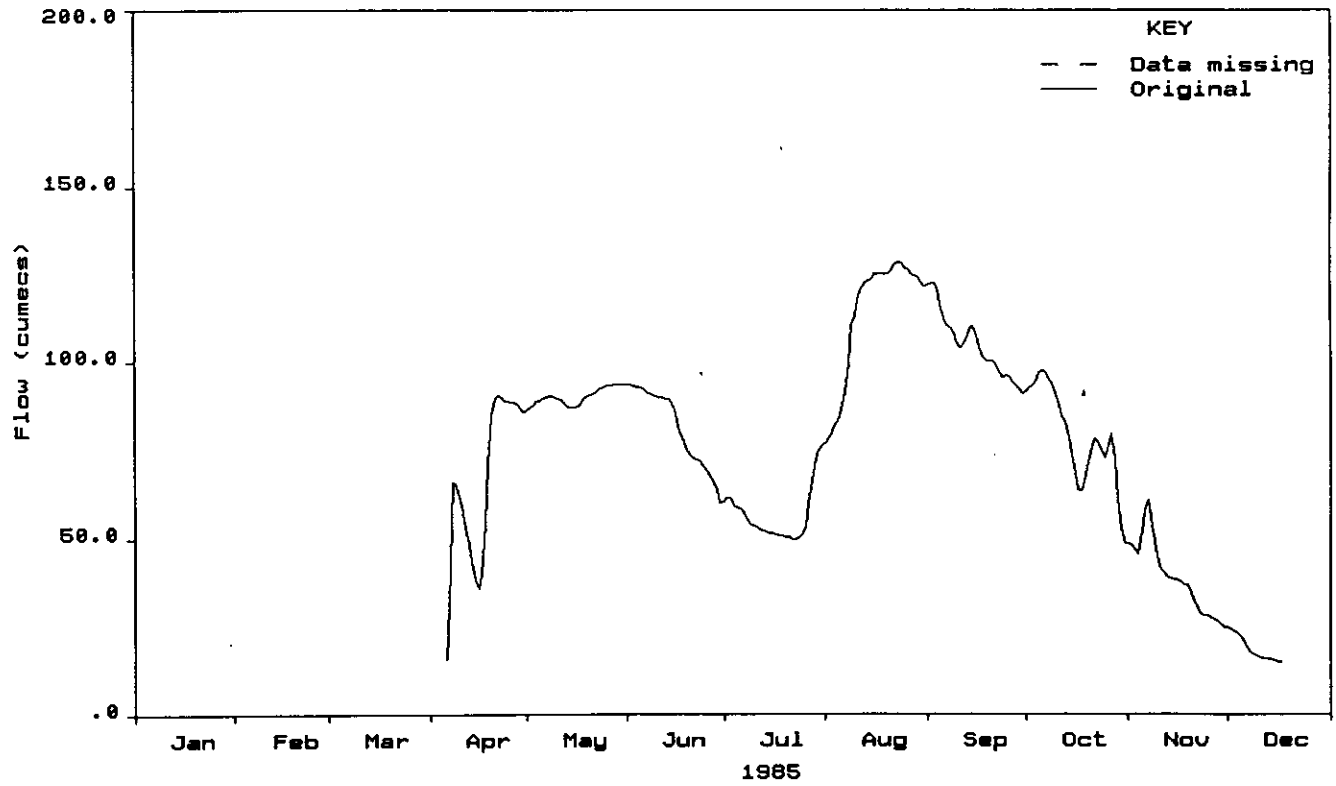
1983



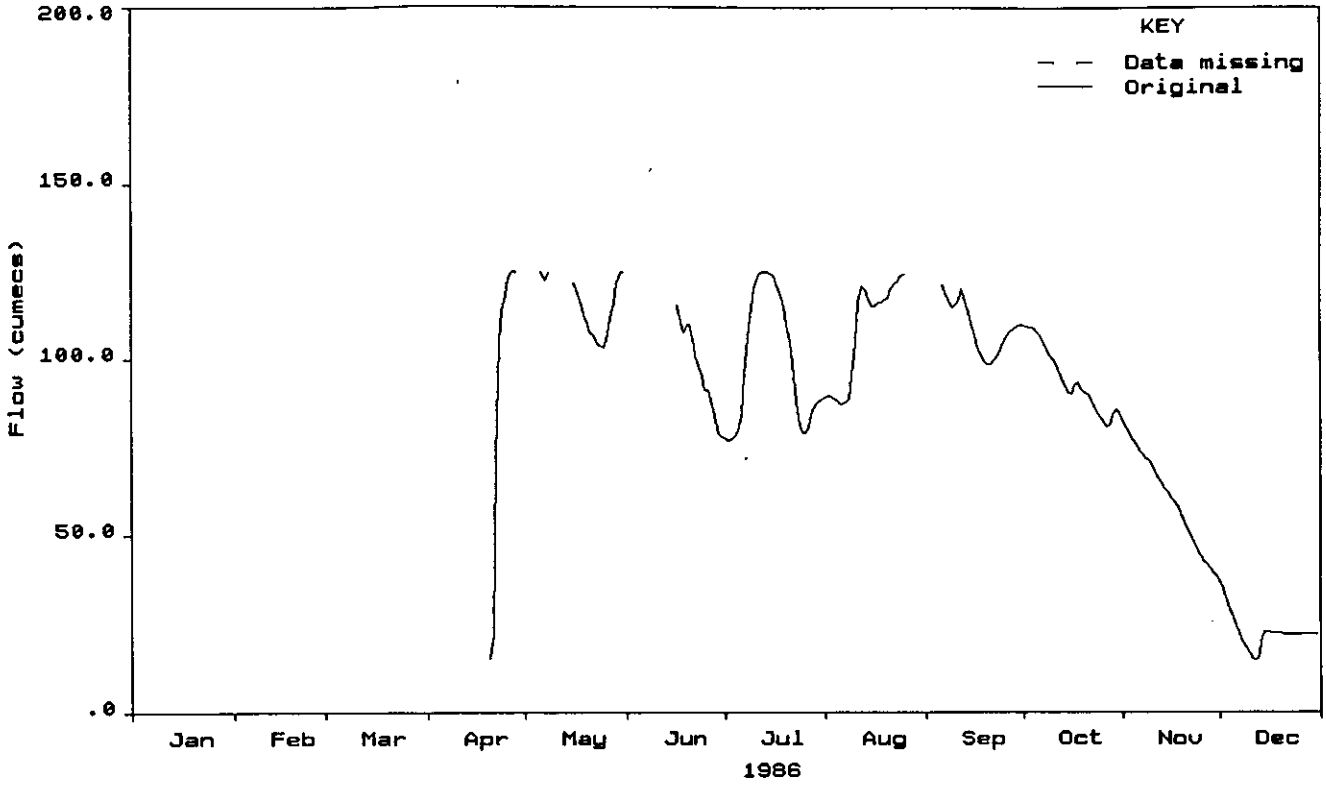
Shebelli downstream of outlet canal 1984



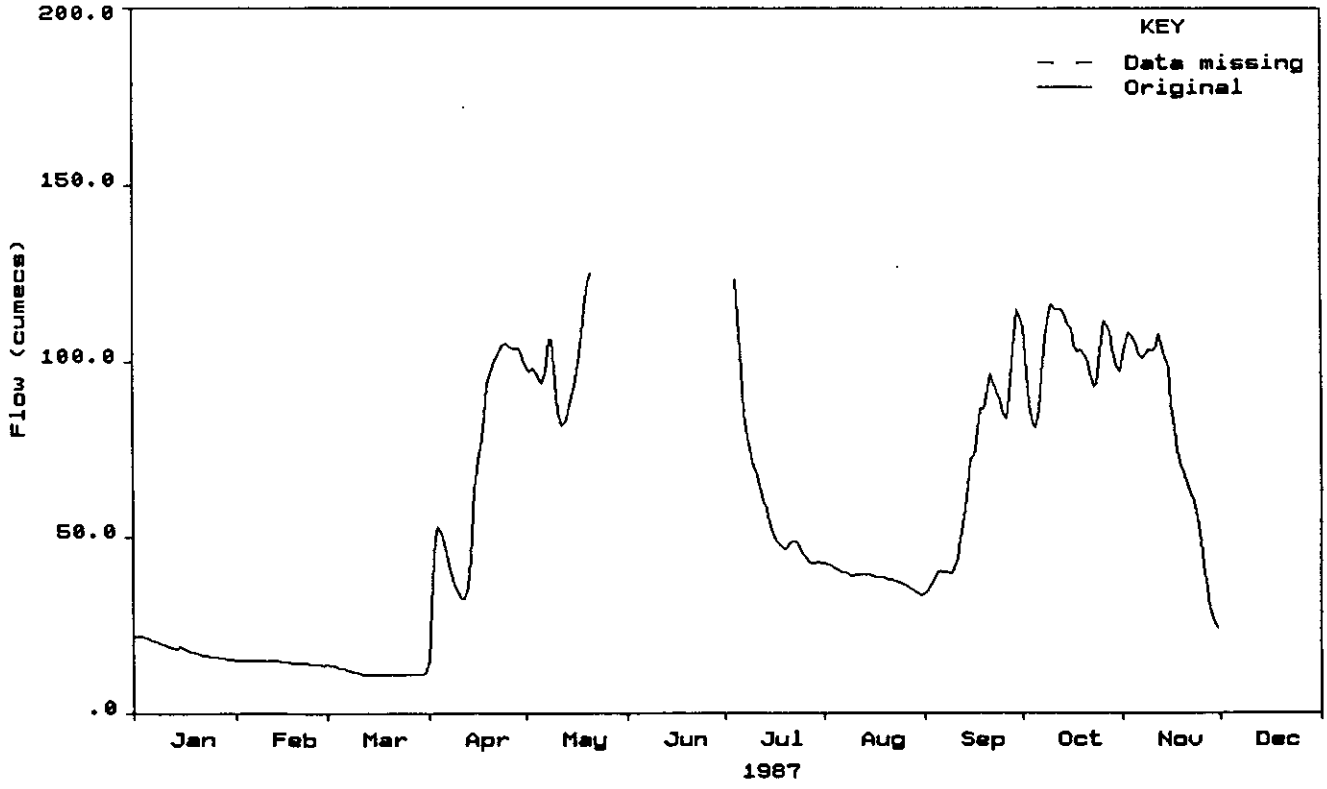
1985



Shebelli downstream of outlet canal 1986

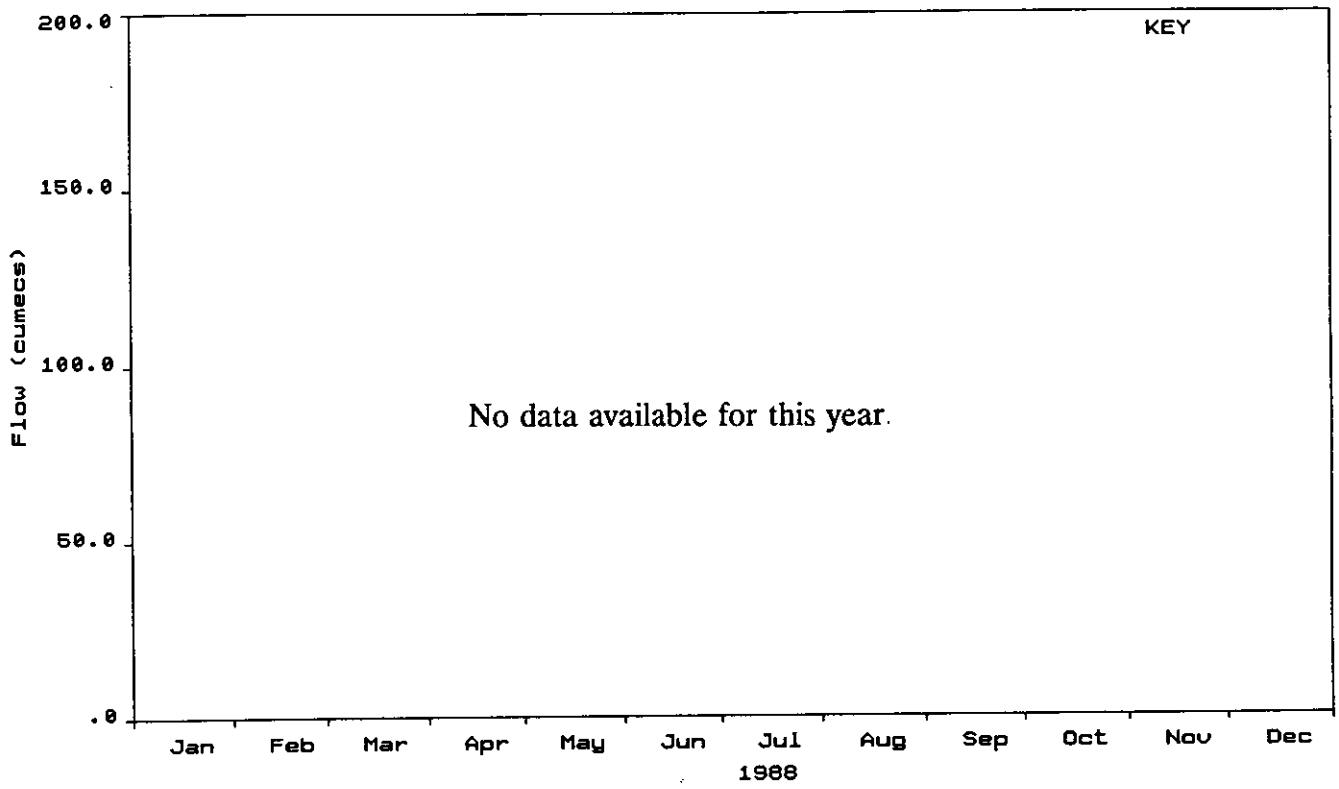


1987

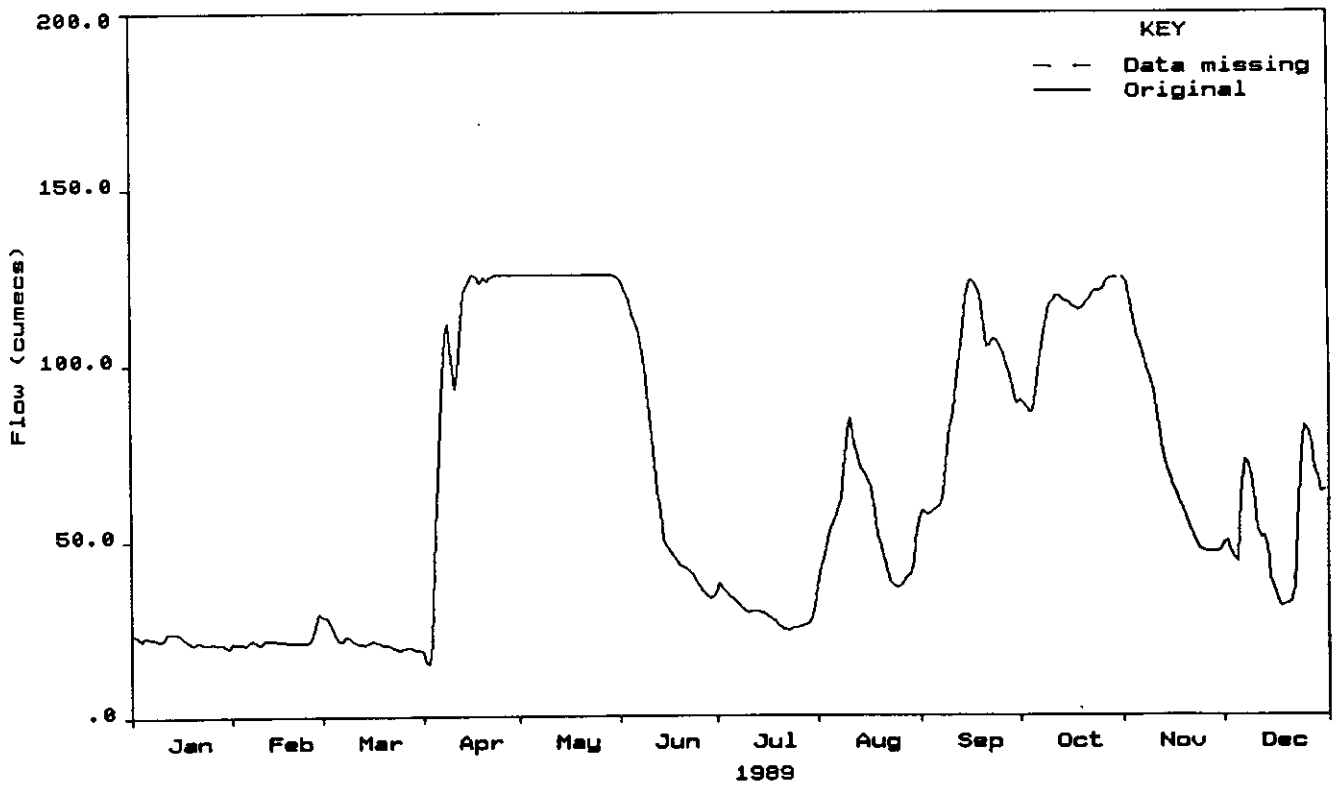


Shebelli downstream of outlet canal

1988



1989

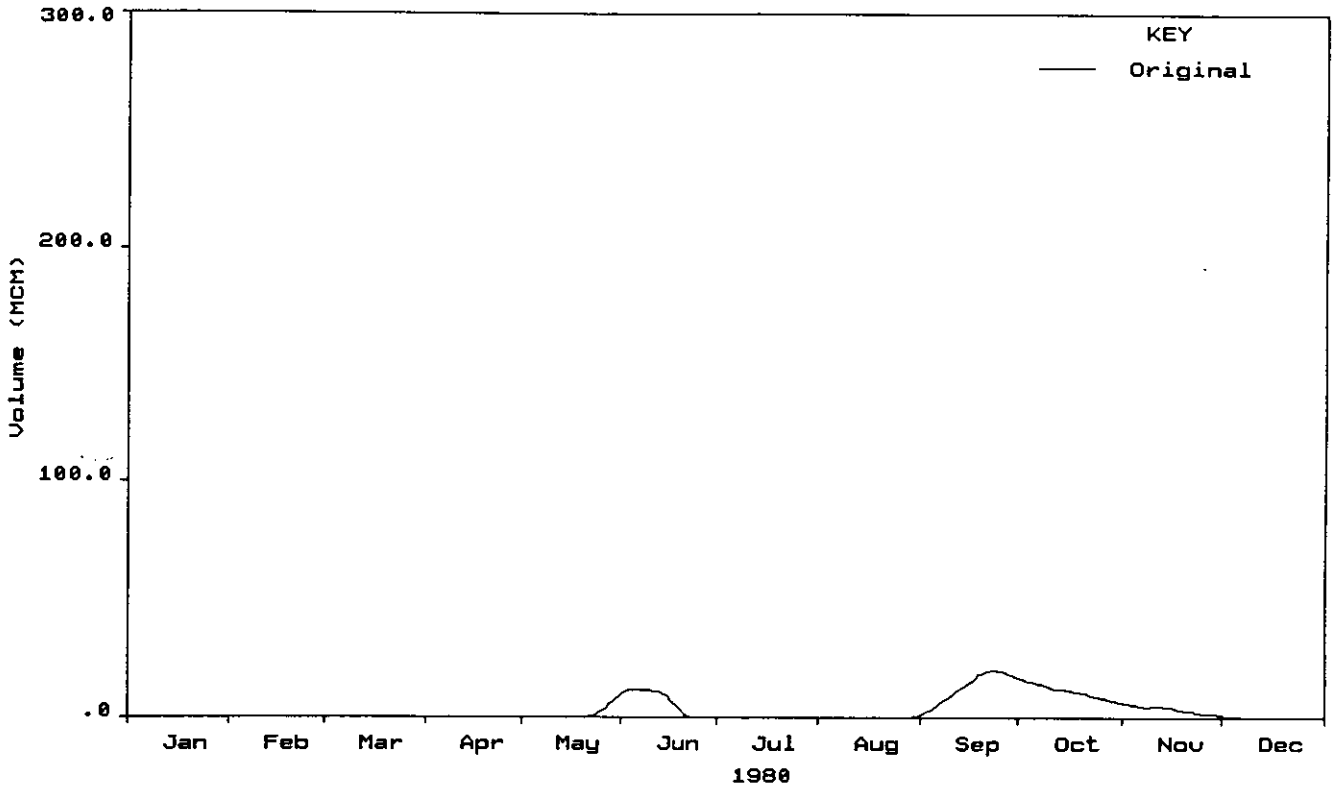


RESERVOIR STORAGE

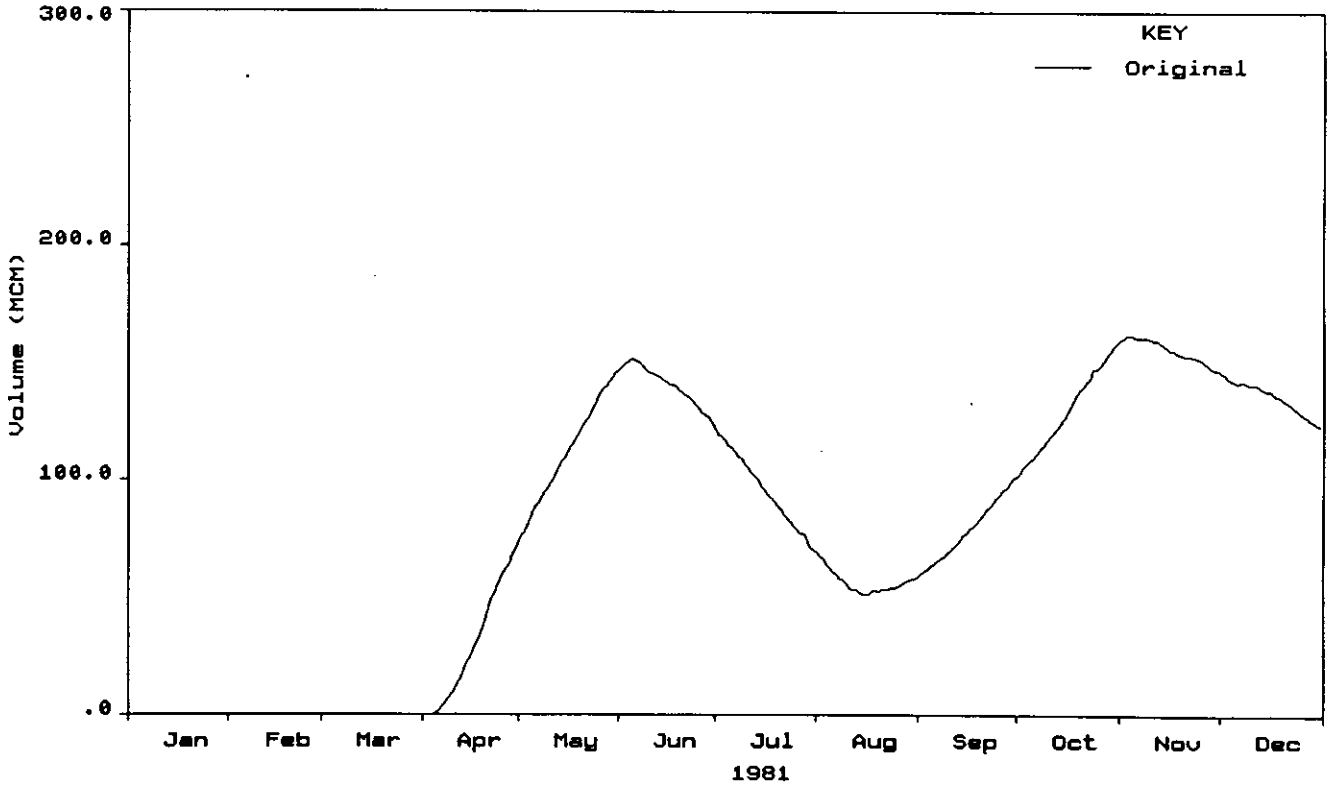
1980 - 1989

Reservoir storage

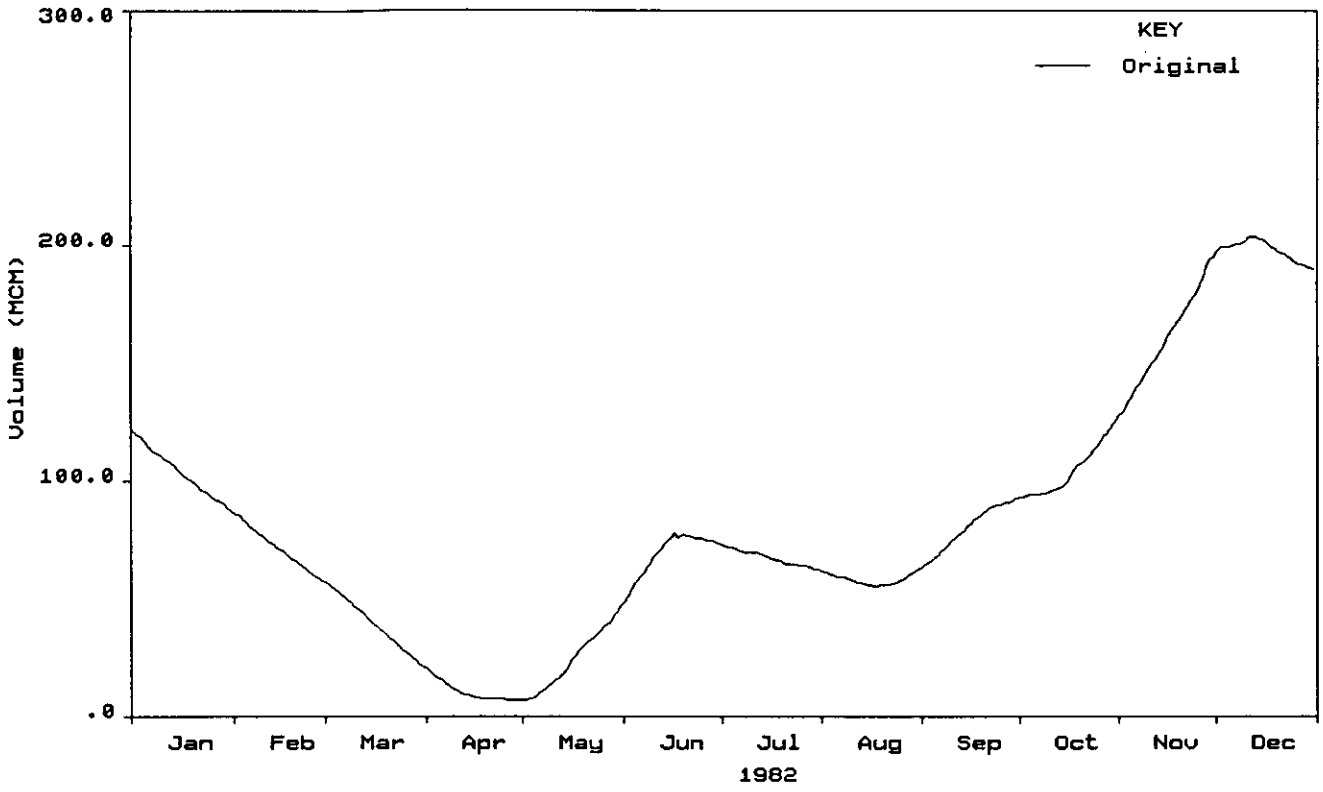
1980



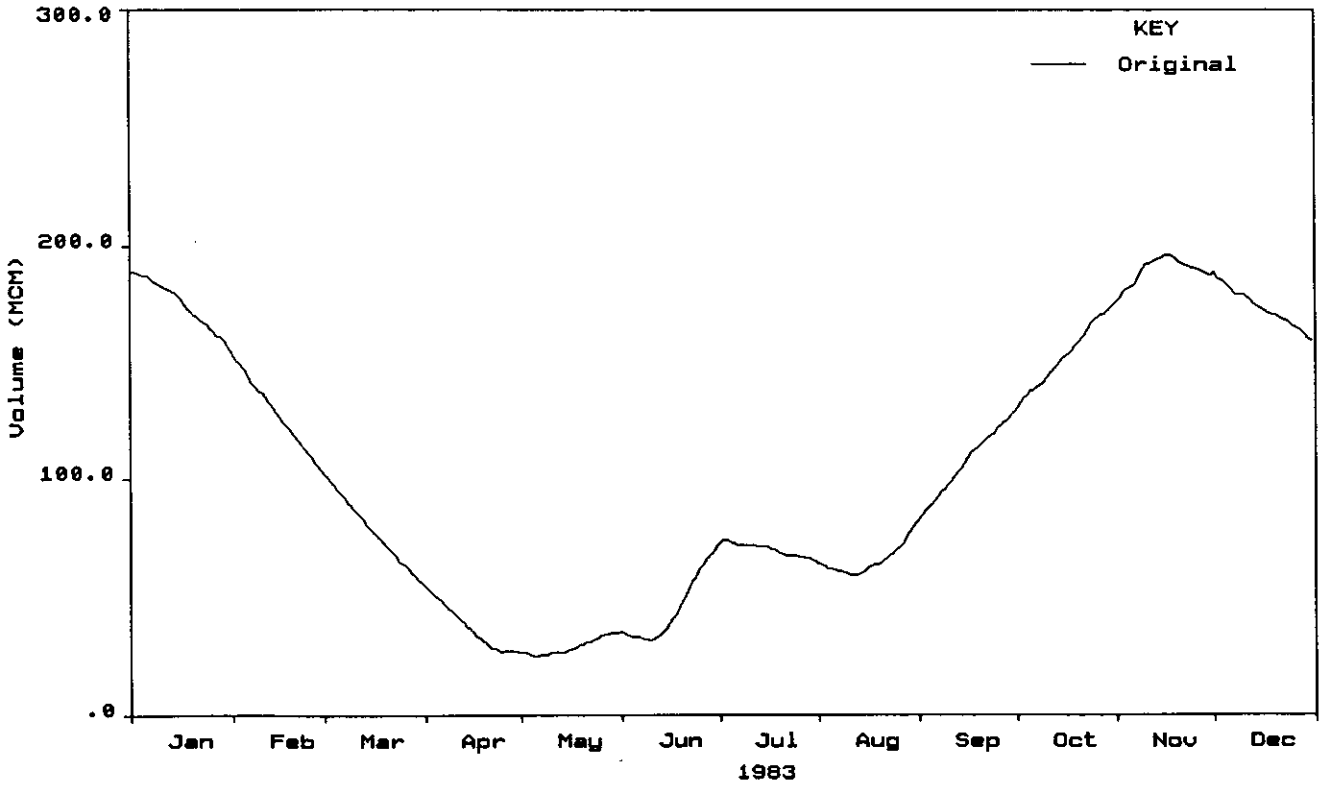
1981



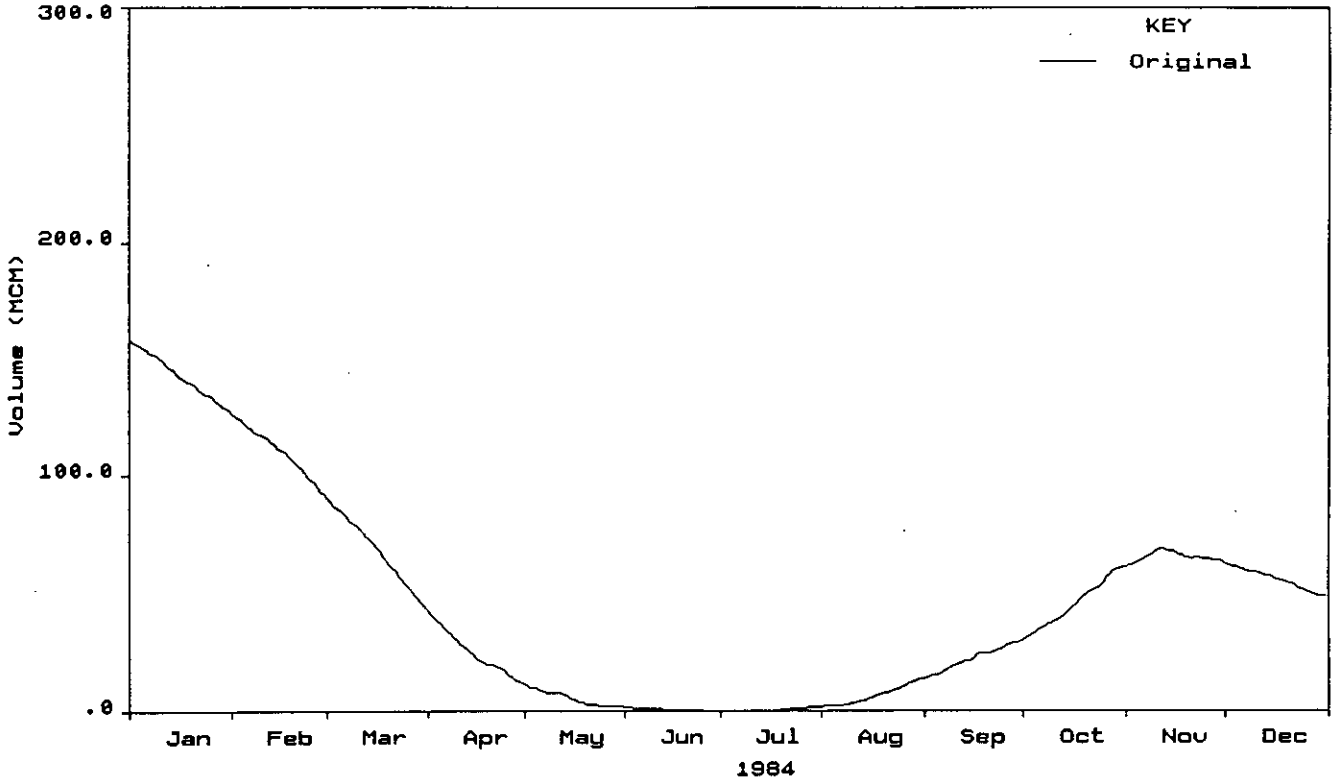
Reservoir storage 1982



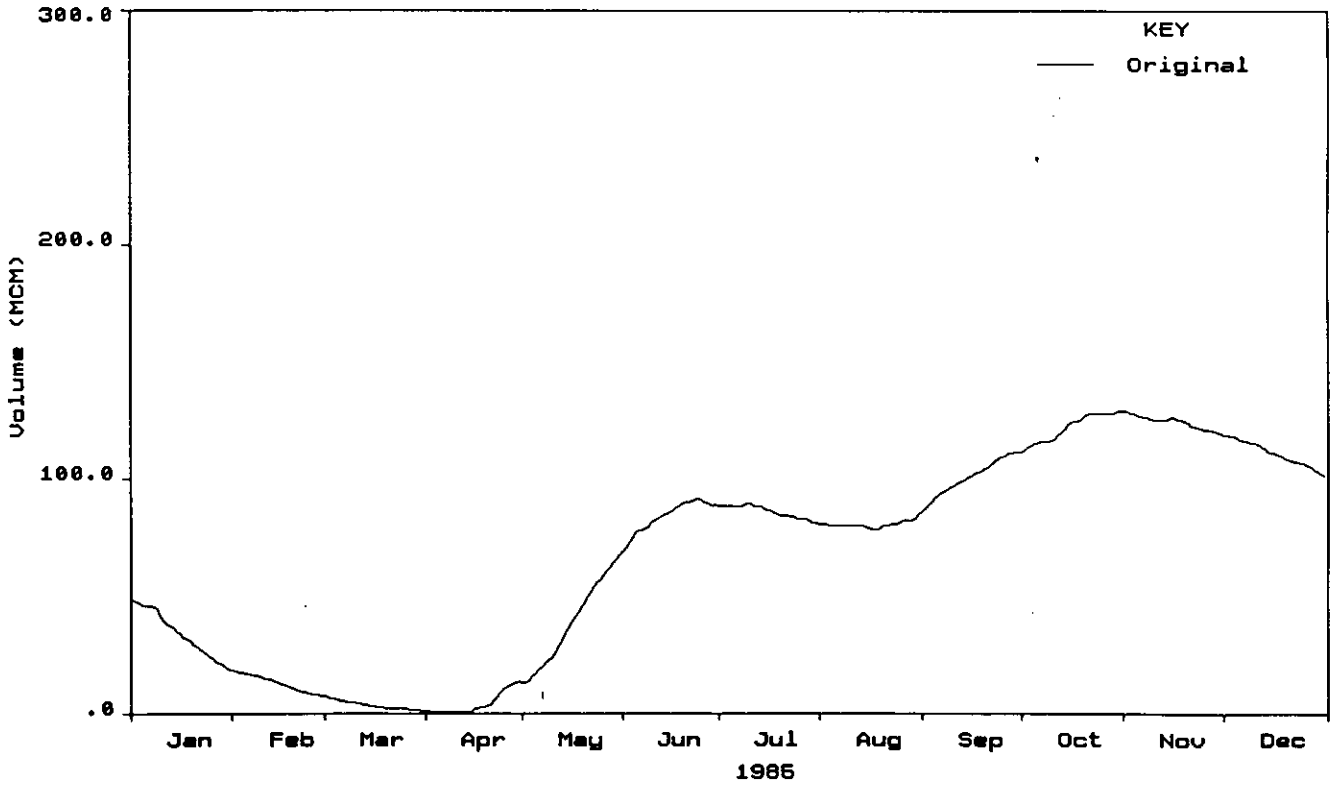
1983



Reservoir storage 1984

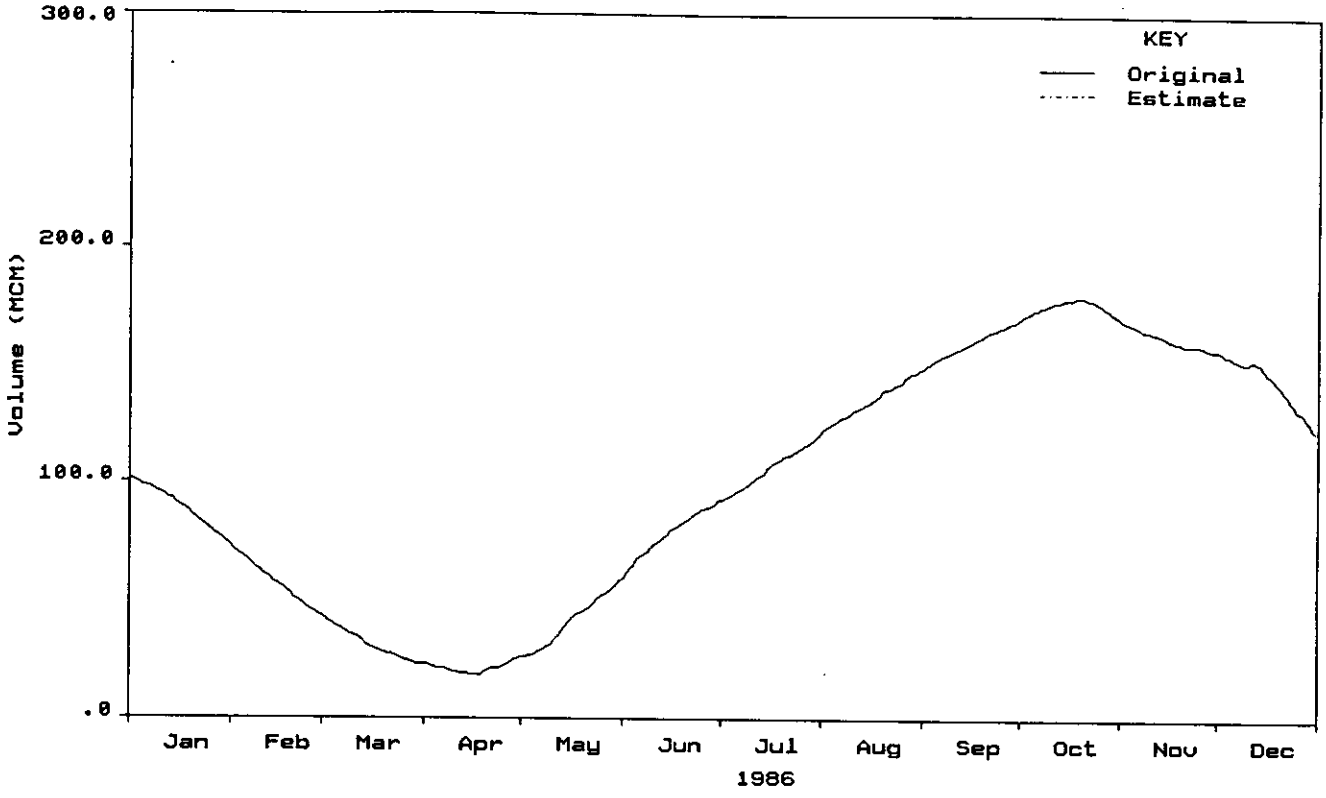


1985

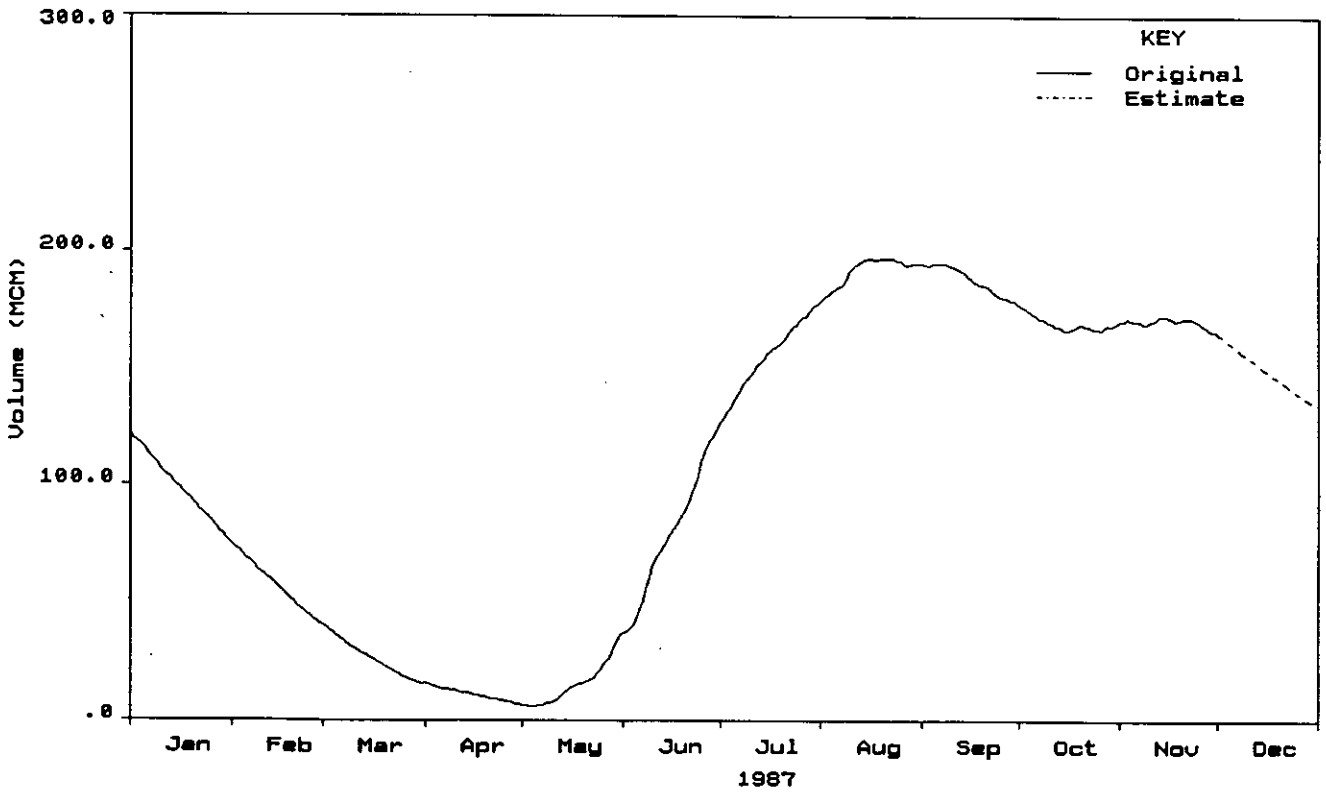


Reservoir storage

1986

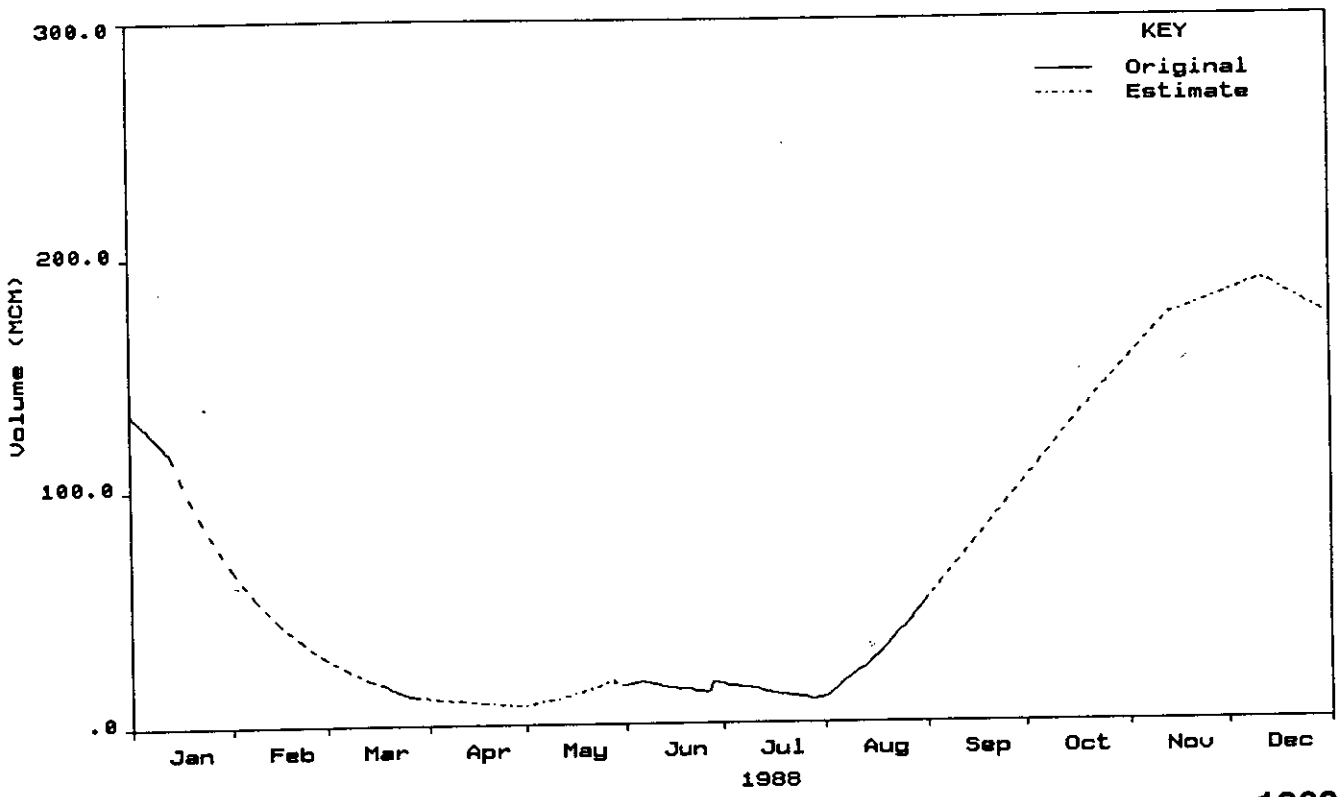


1987



Reservoir storage

1988



1989