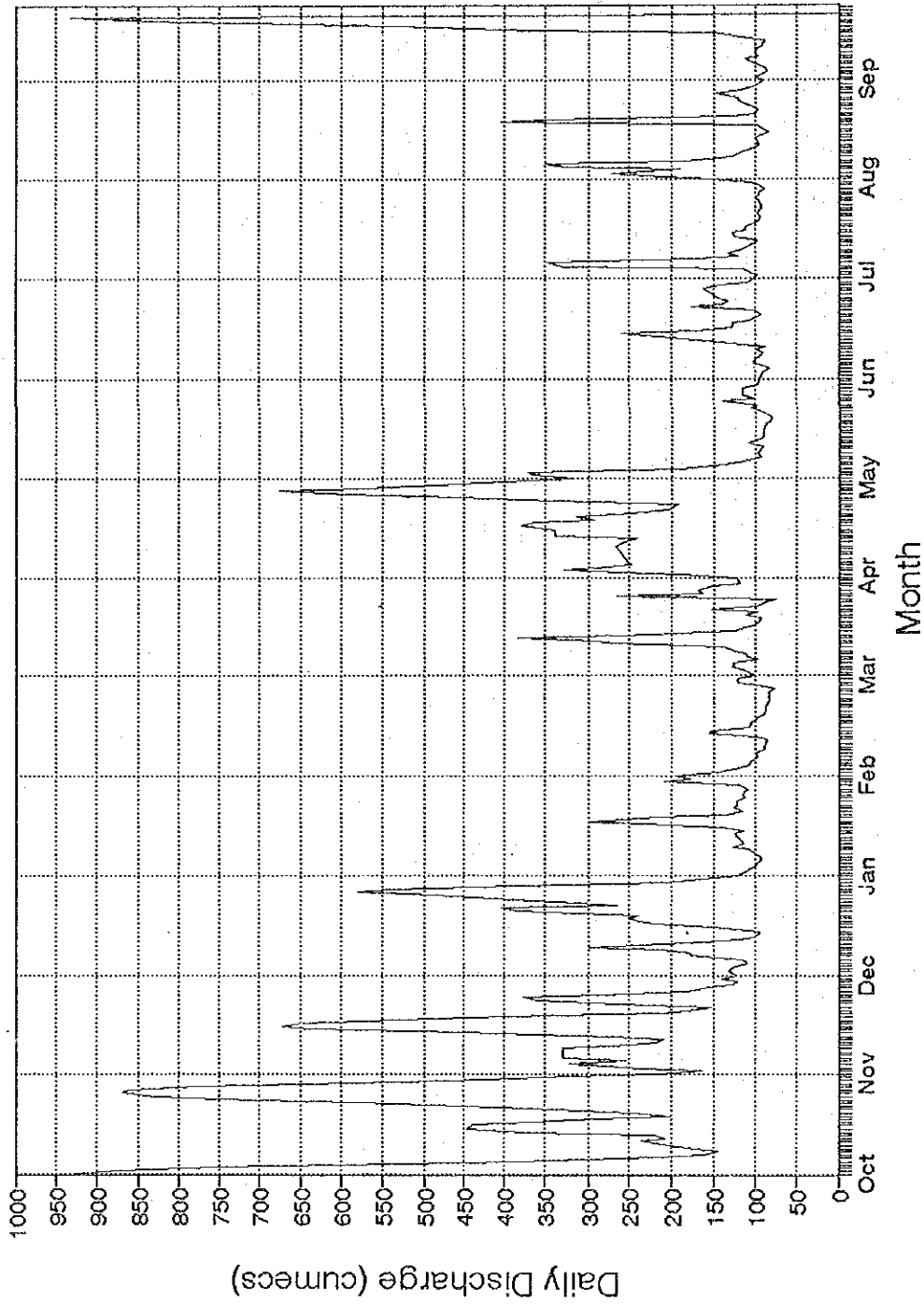
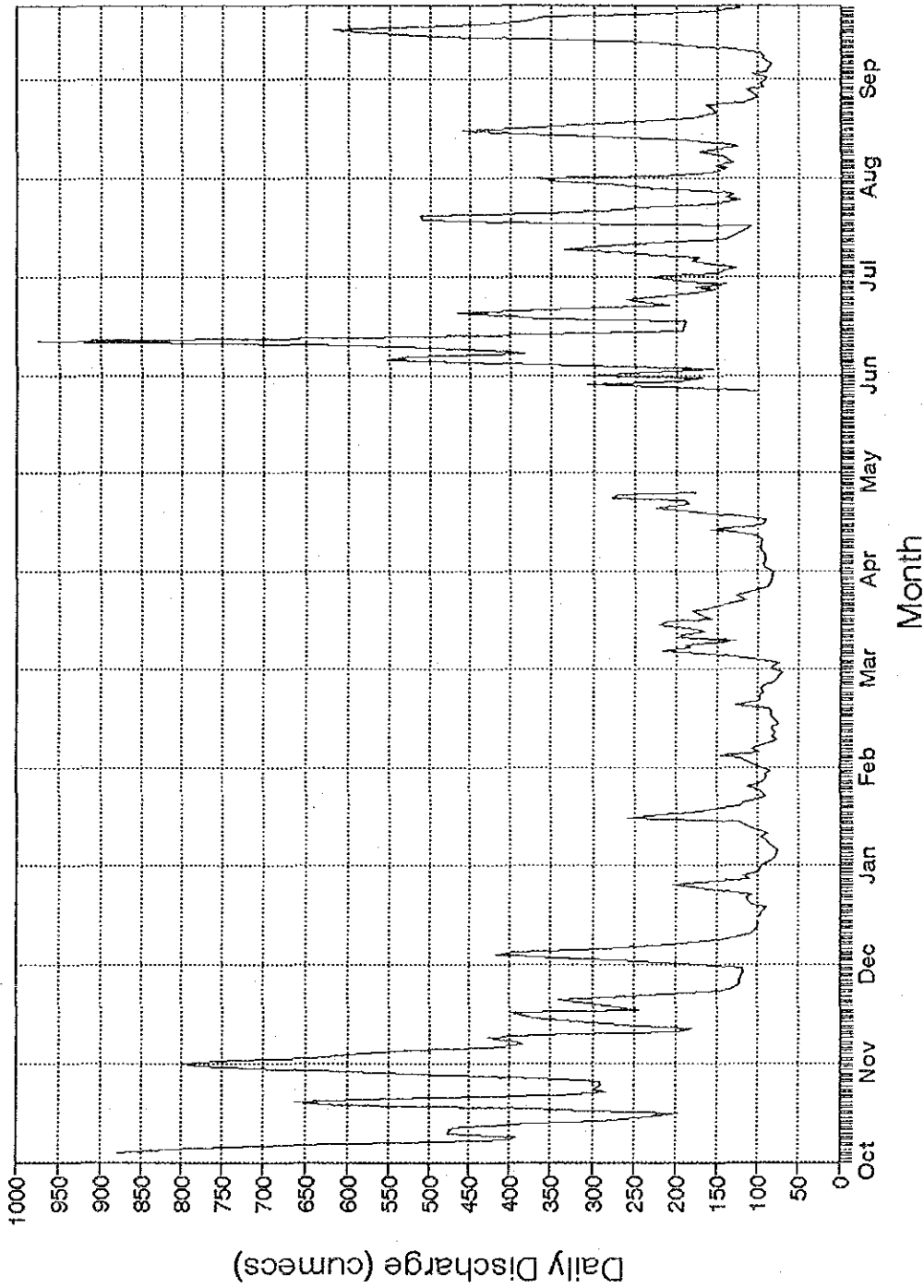


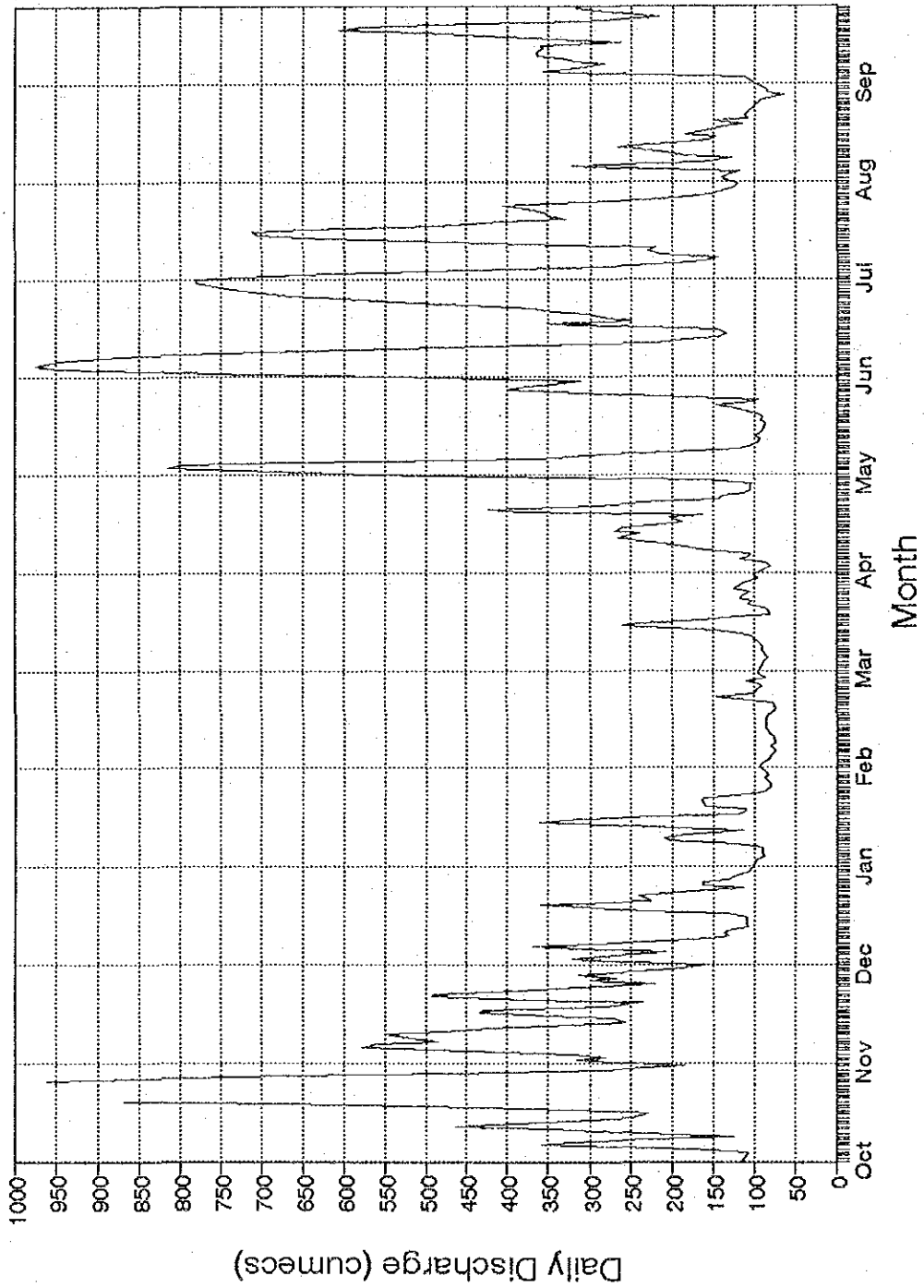
DAILY FLOWS AT PUTUPAULA
IN HYDROLOGICAL YEAR 1965-66



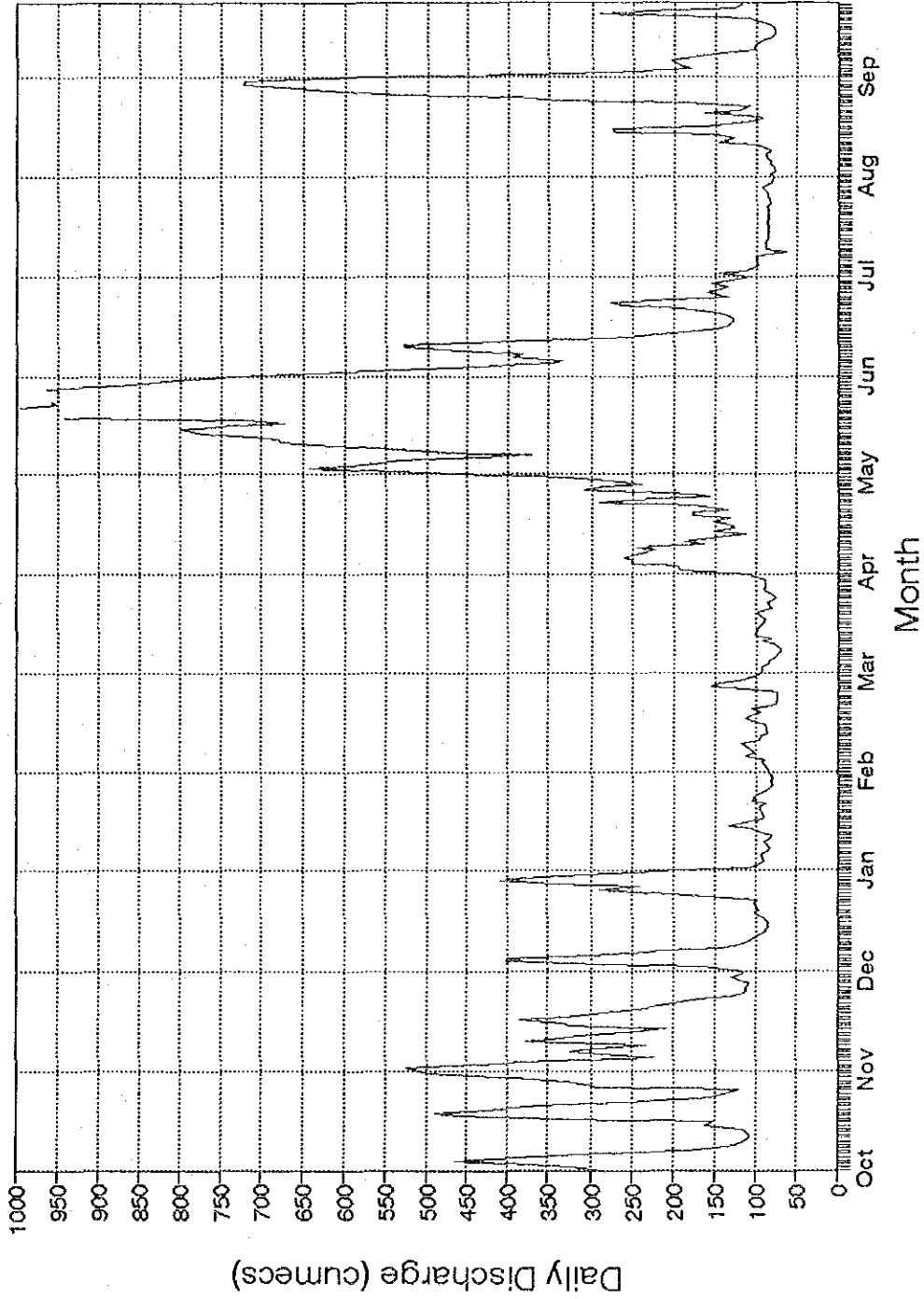
DAILY FLOWS AT PUTUPAULA
IN HYDROLOGICAL YEAR 1966-67



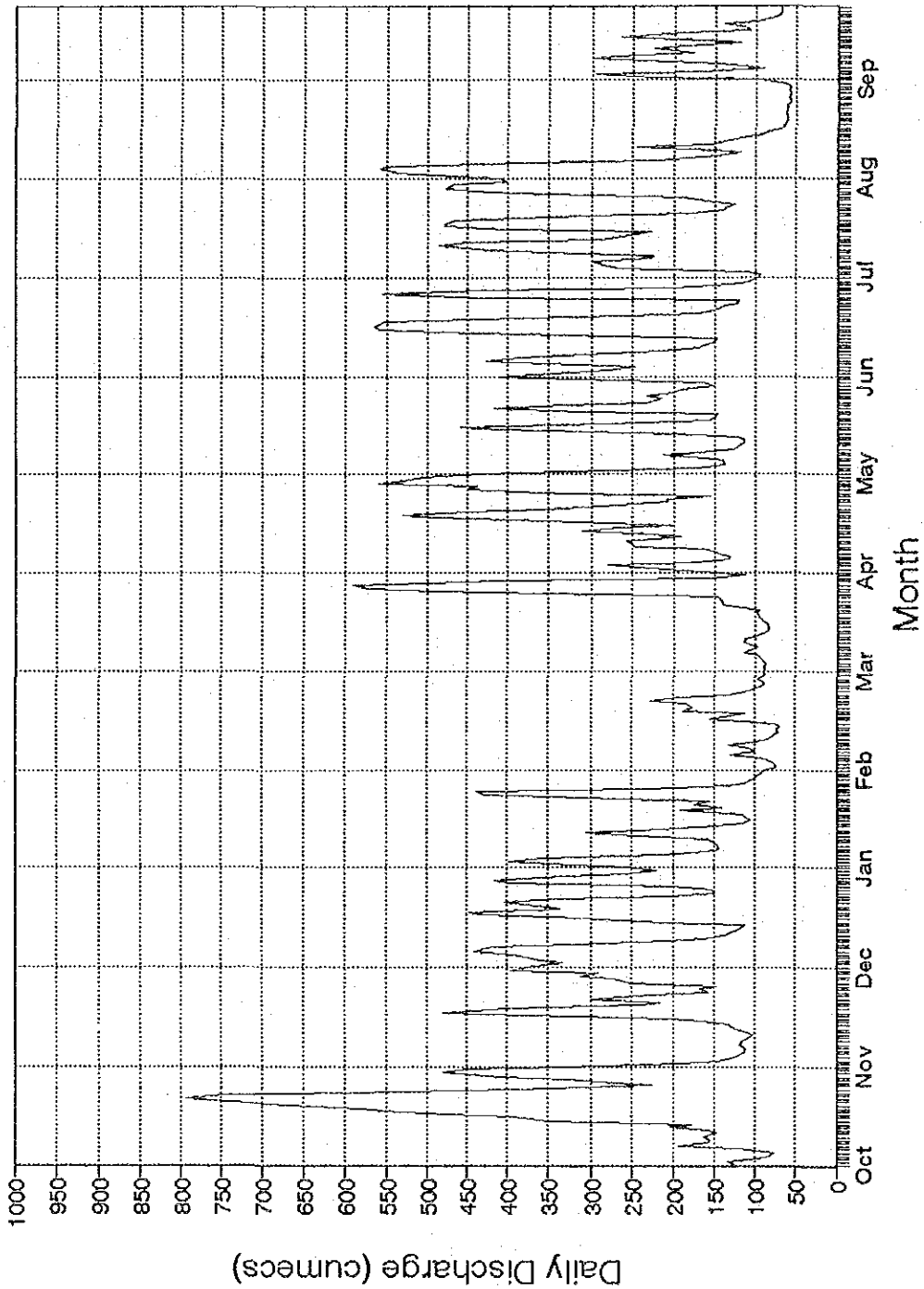
DAILY FLOWS AT PUTUPAULA
IN HYDROLOGICAL YEAR 1967-68



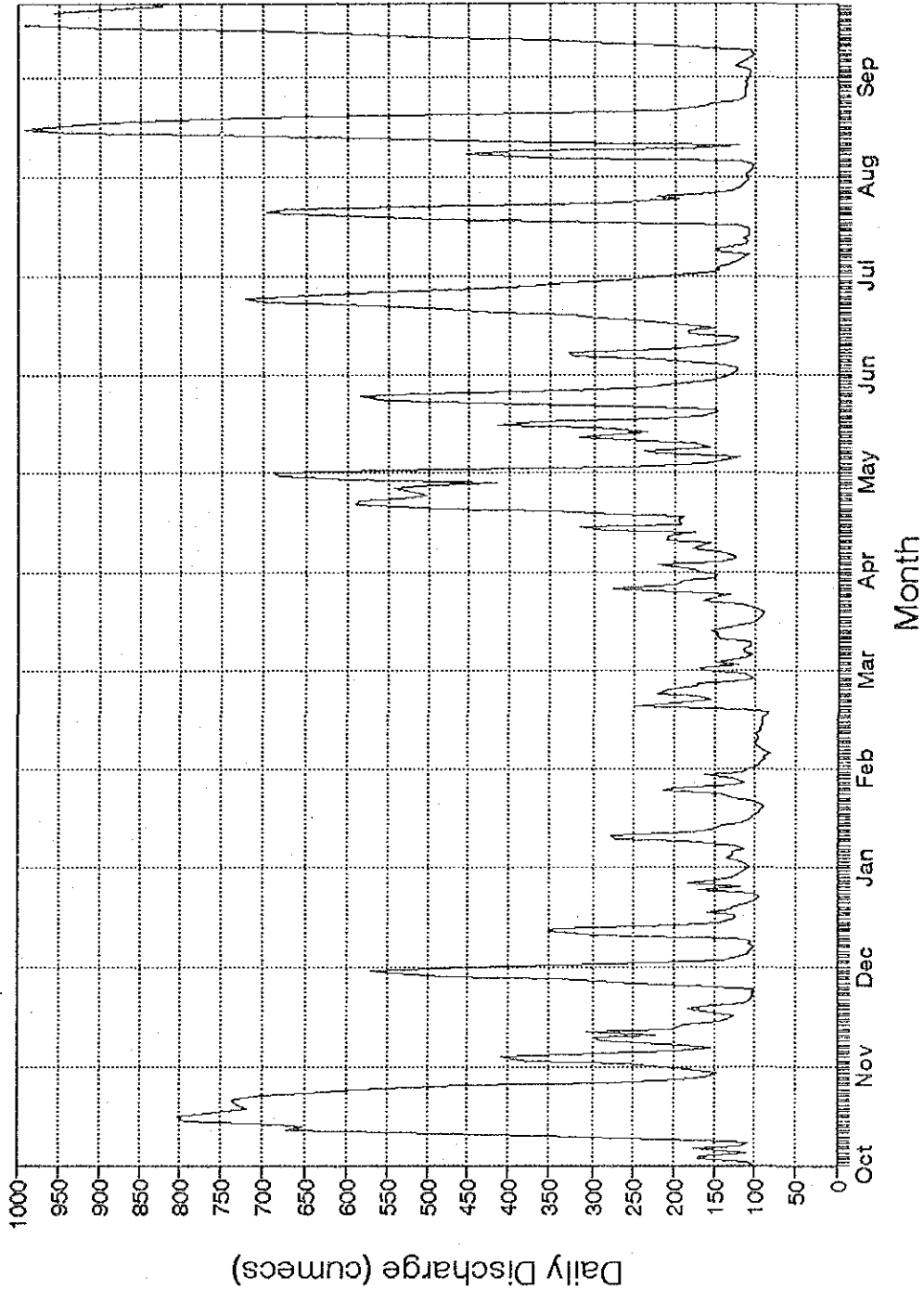
DAILY FLOWS AT PUTUPAULA IN HYDROLOGICAL YEAR 1968-69



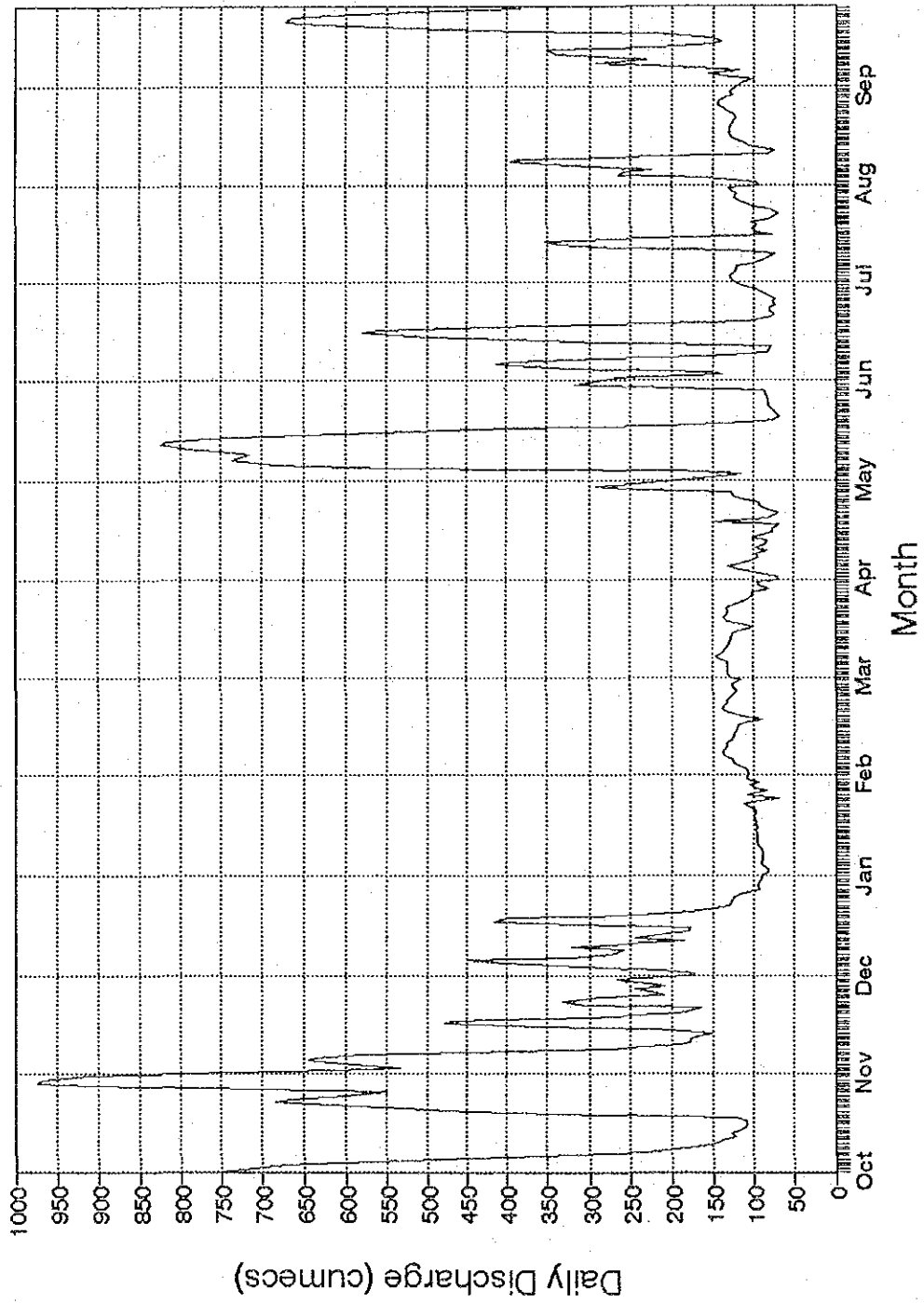
DAILY FLOWS AT PUTUPAULA
IN HYDROLOGICAL YEAR 1969-70



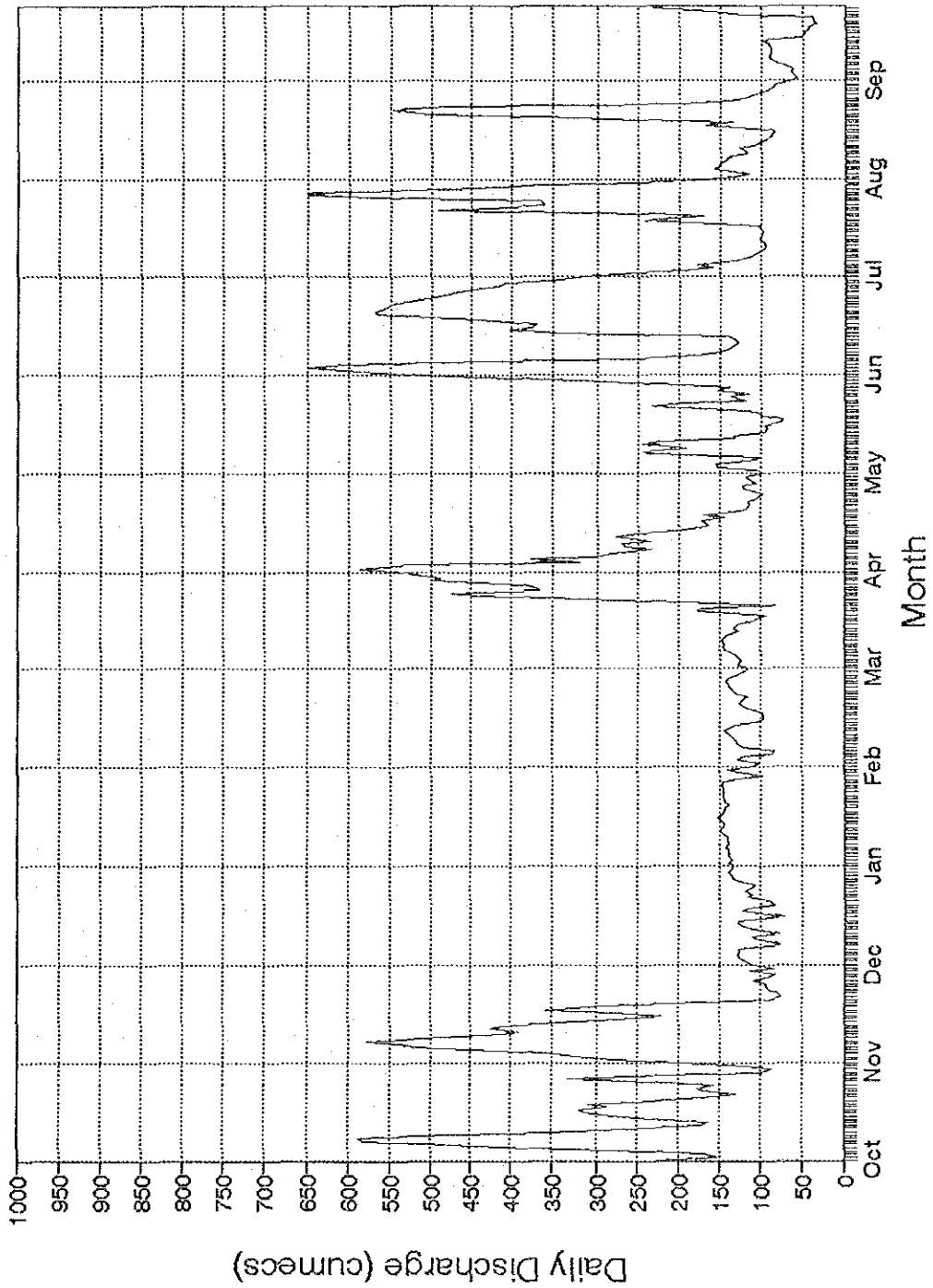
DAILY FLOWS AT PUTUPAULA
IN HYDROLOGICAL YEAR 1970-71



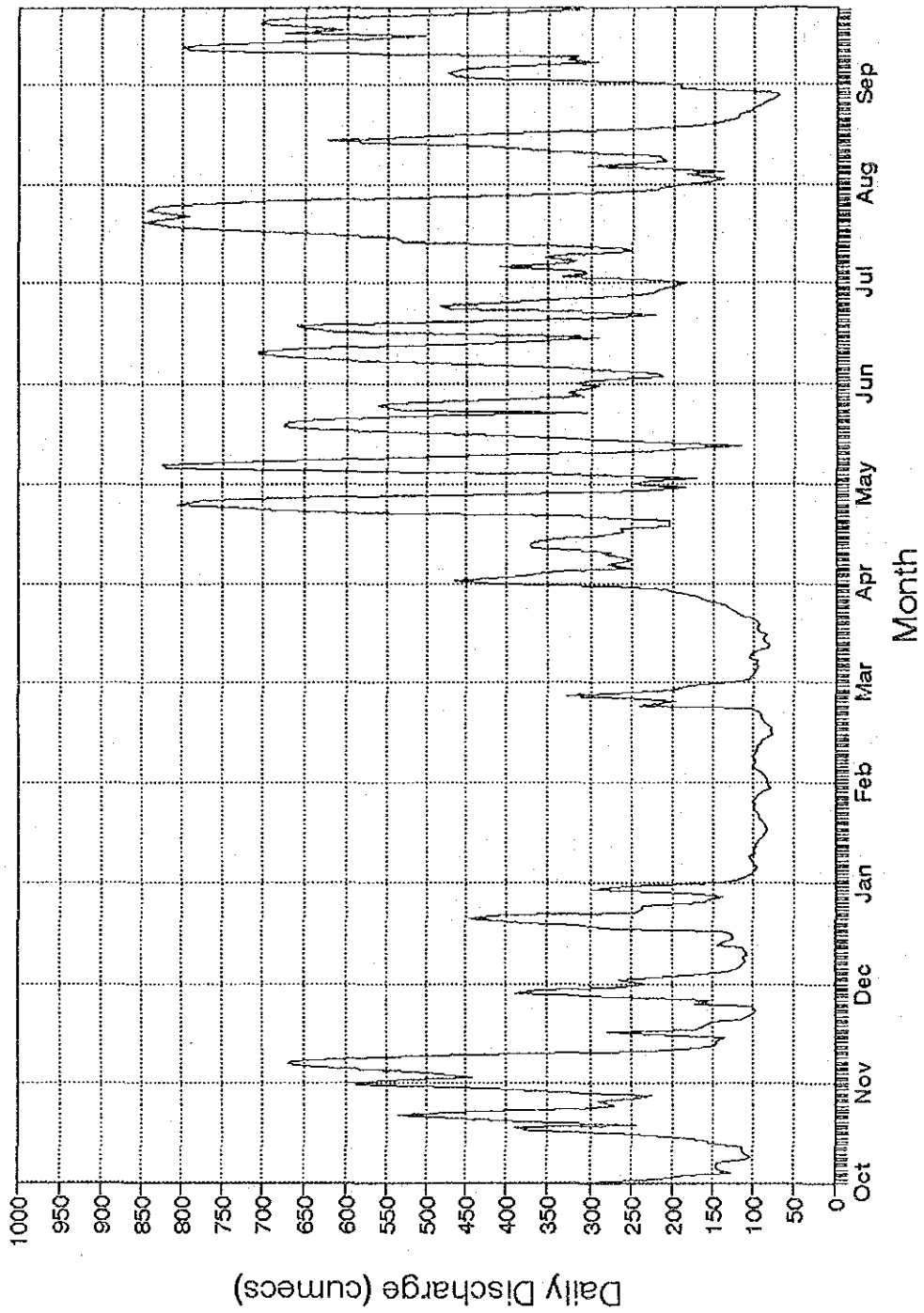
DAILY FLOWS AT PUTUPAULA
IN HYDROLOGICAL YEAR 1971-72



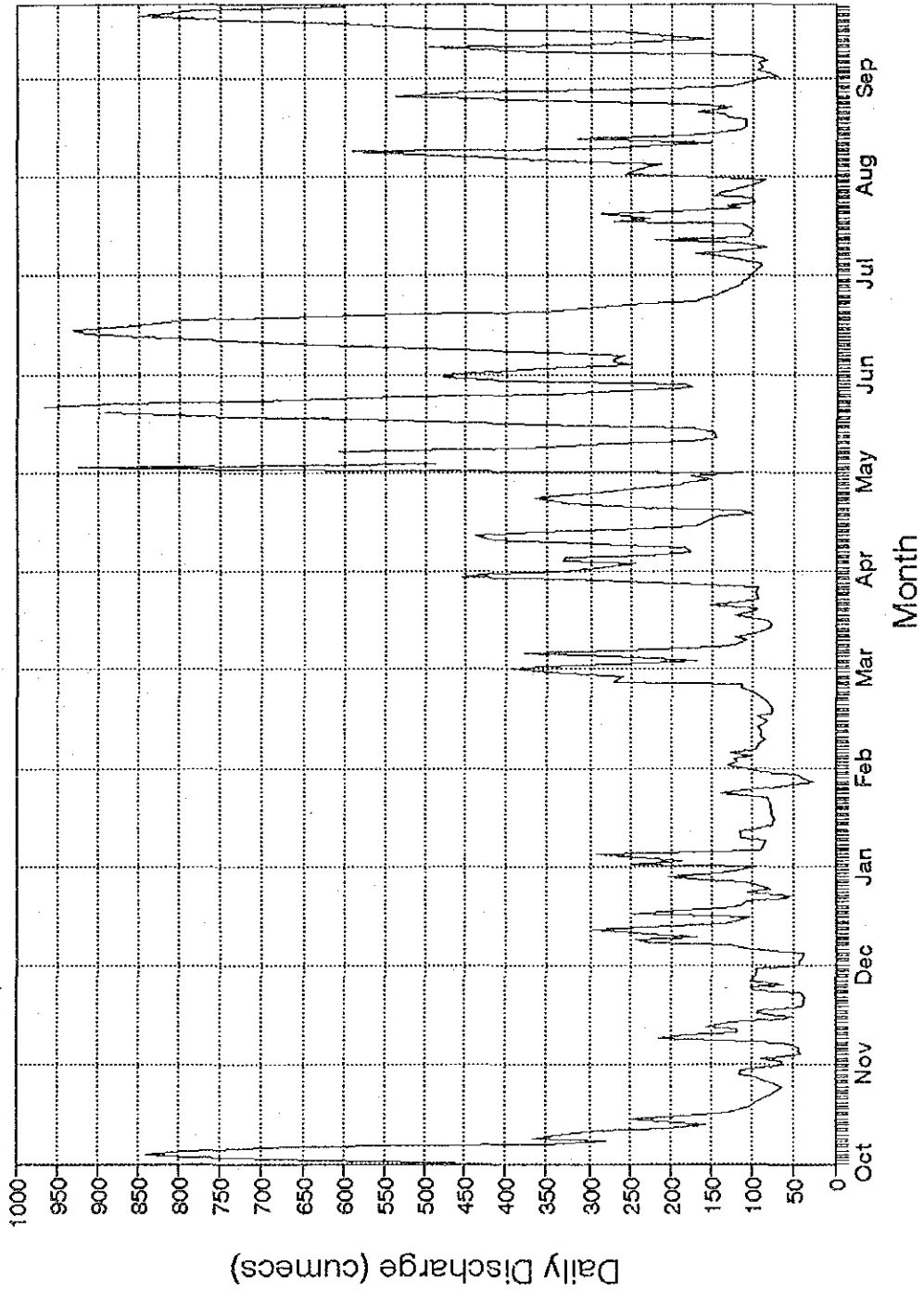
DAILY FLOWS AT PUTUPAULA
IN HYDROLOGICAL YEAR 1972-73



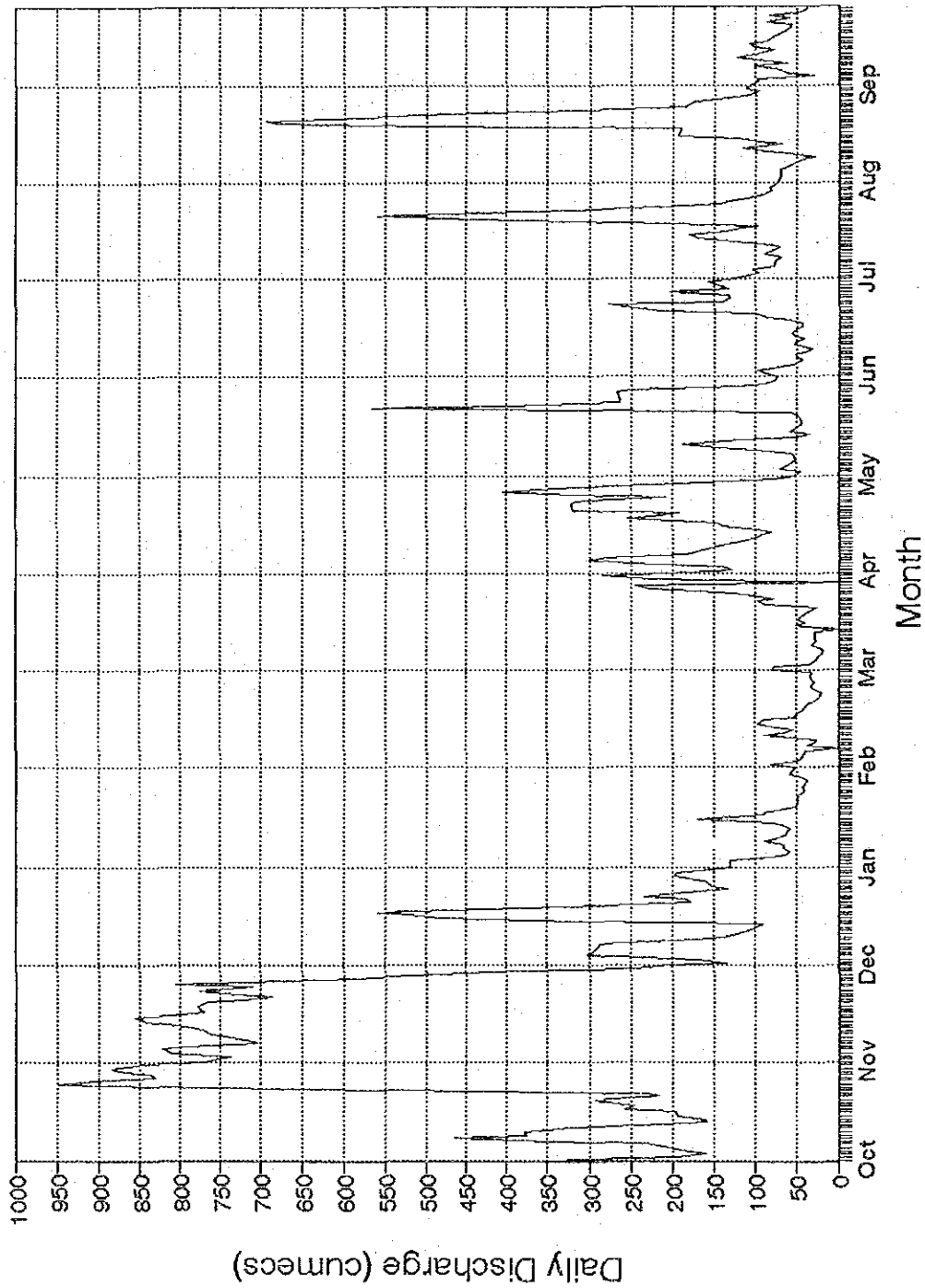
DAILY FLOWS AT PUTUPAULA
IN HYDROLOGICAL YEAR 1973-74



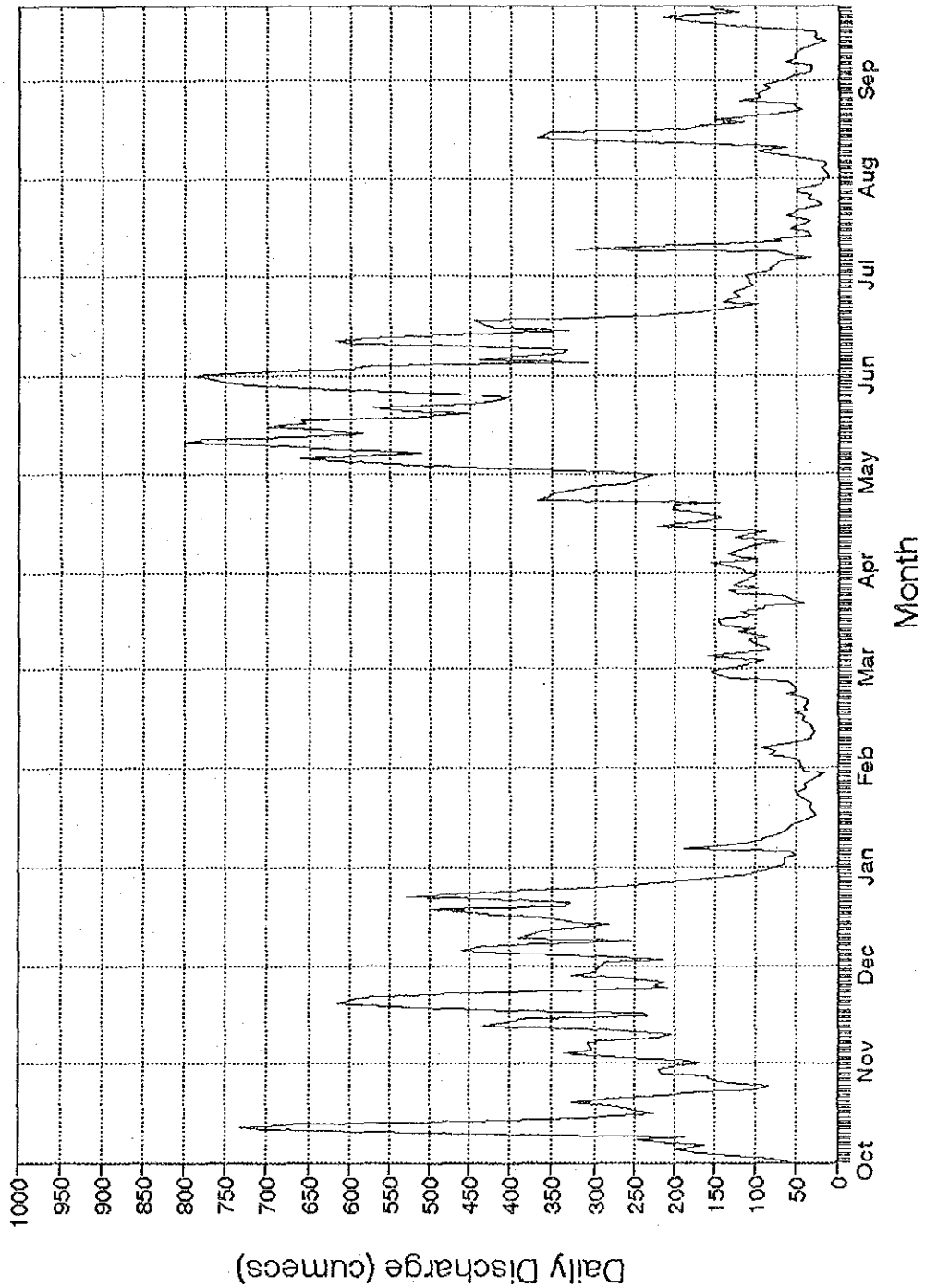
DAILY FLOWS AT PUTUPAULA
IN HYDROLOGICAL YEAR 1974-75



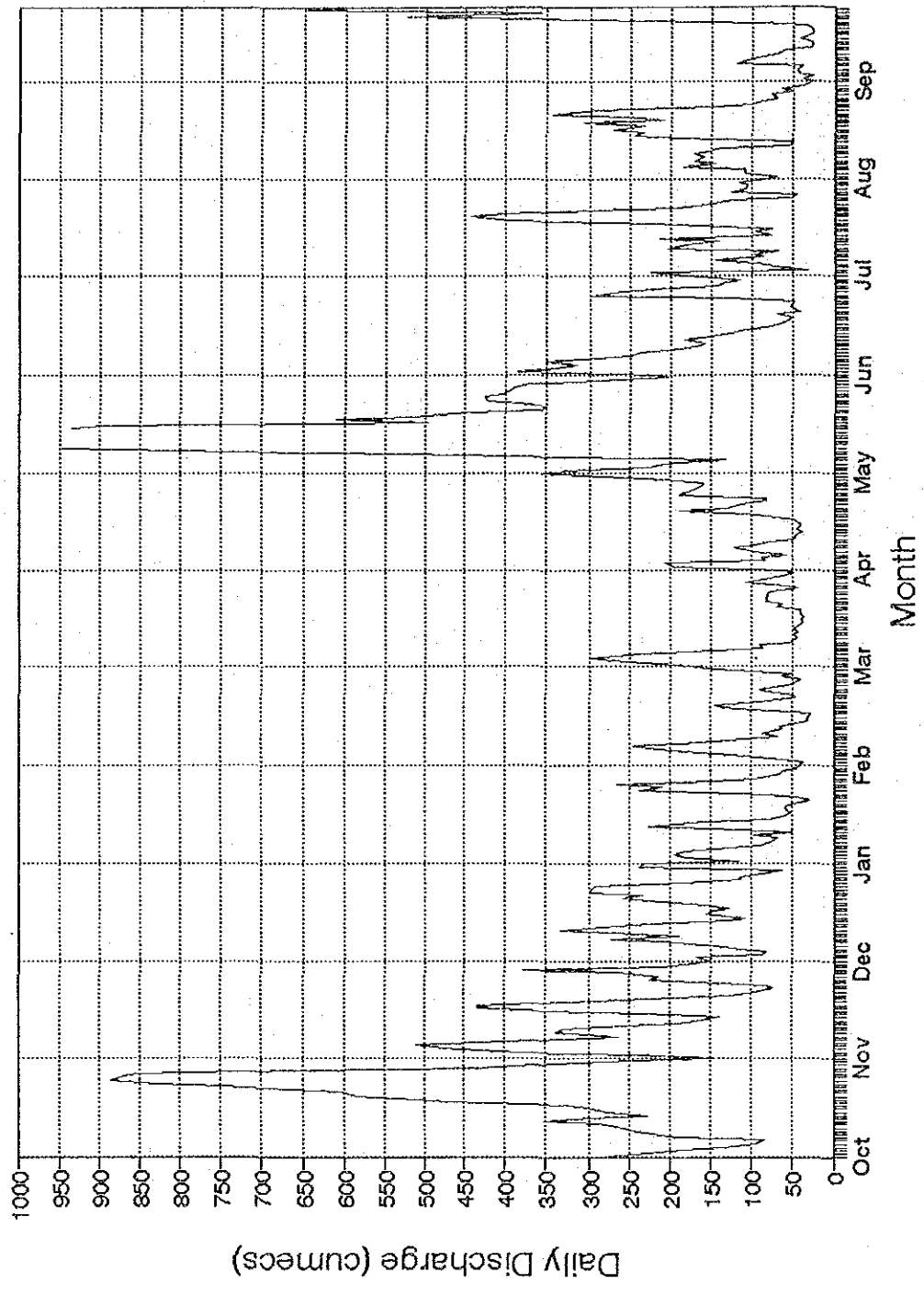
DAILY FLOWS AT PUTUPAULA
IN HYDROLOGICAL YEAR 1975-76



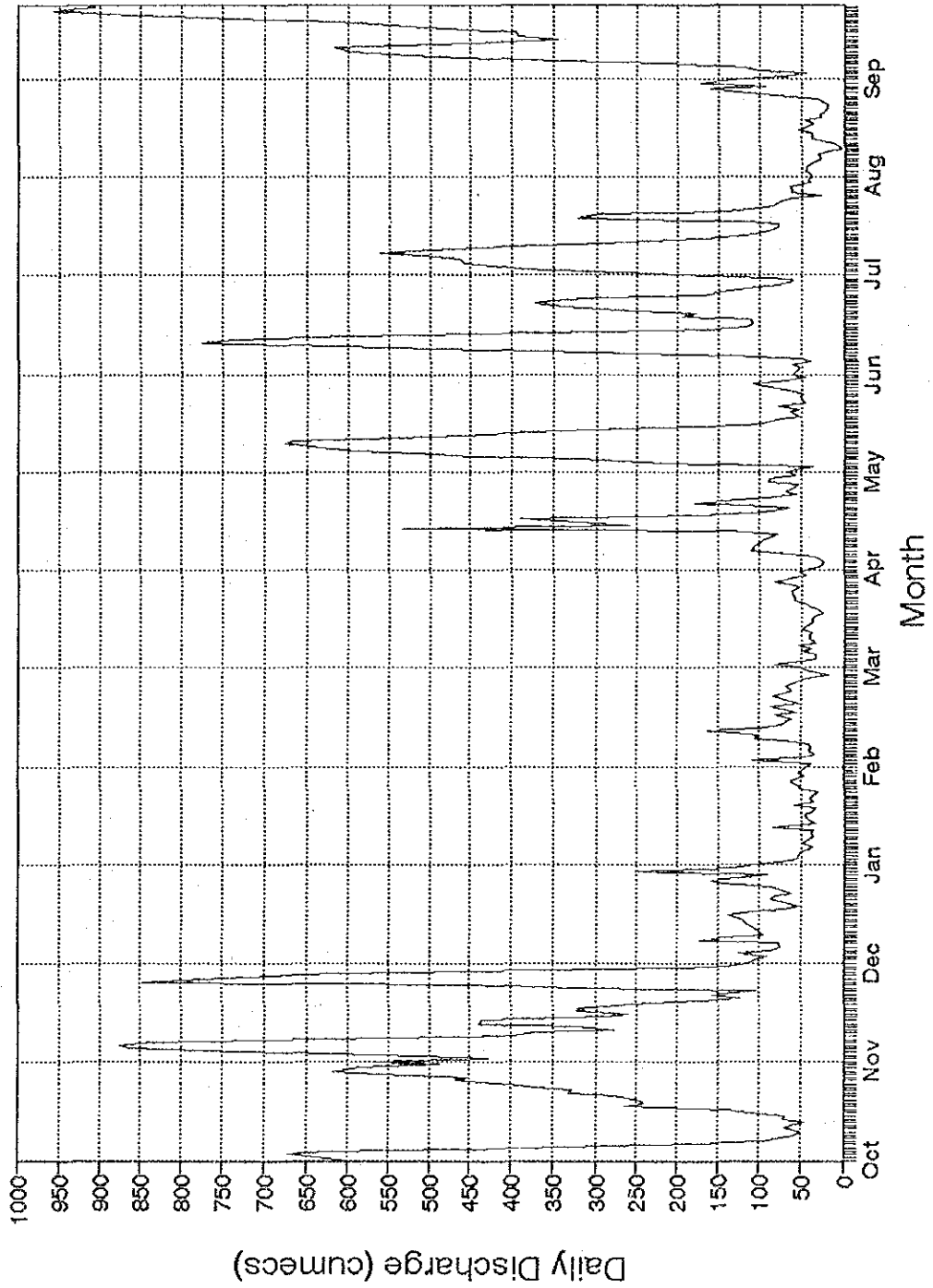
DAILY FLOWS AT PUTUPAULA
IN HYDROLOGICAL YEAR 1976-77



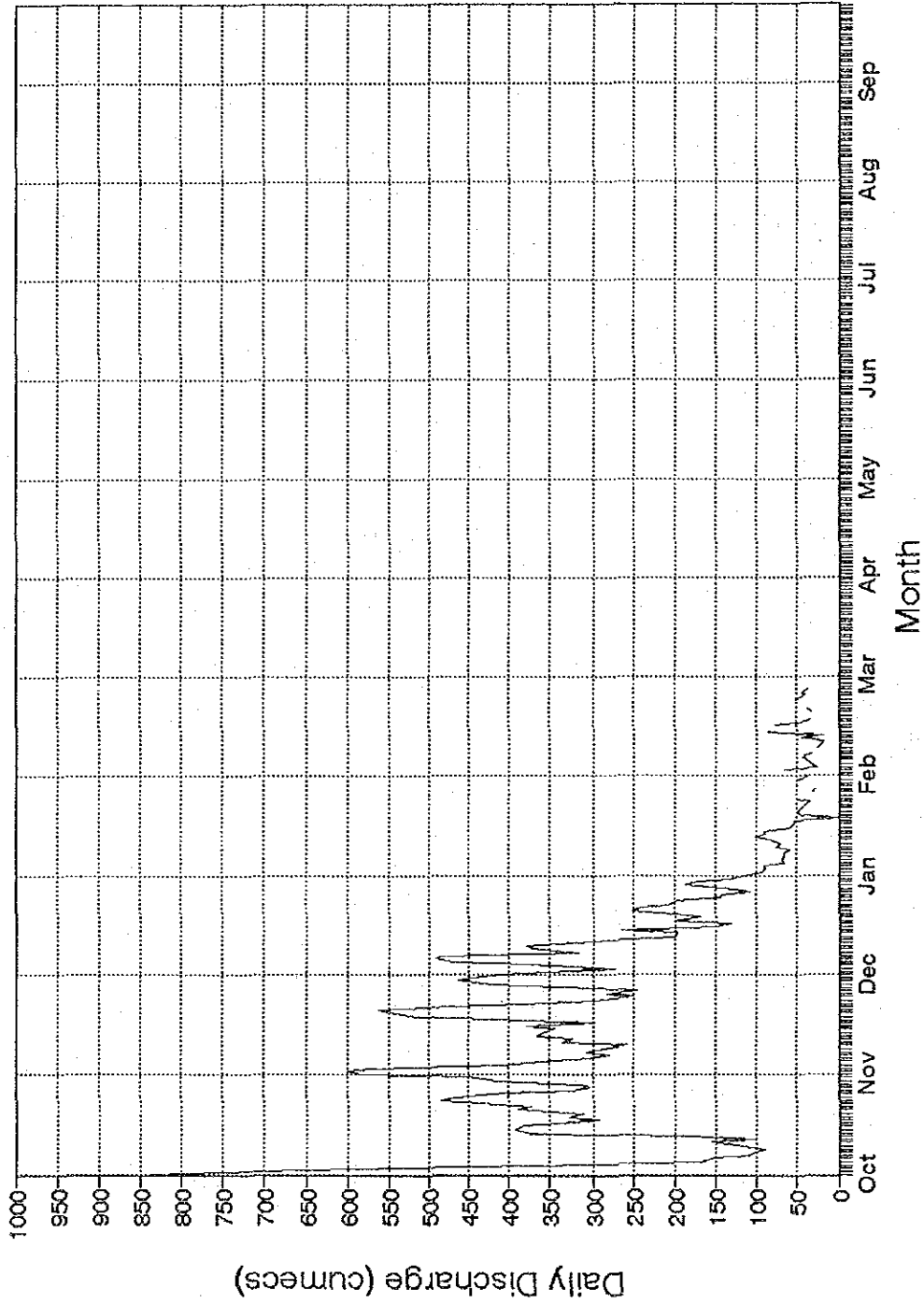
DAILY FLOWS AT PUTUPAULA IN HYDROLOGICAL YEAR 1977-78



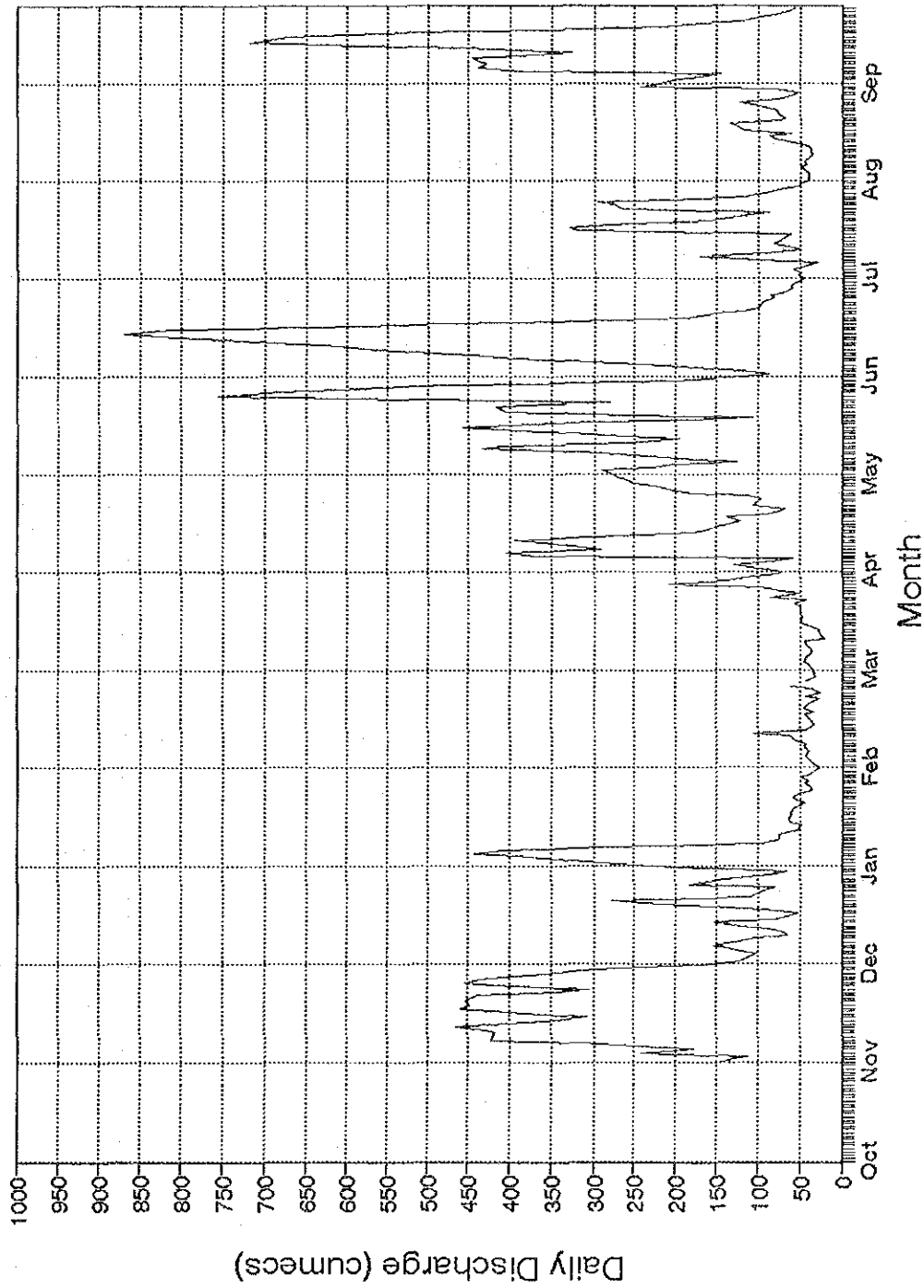
DAILY FLOWS AT PUTUPAULA
IN HYDROLOGICAL YEAR 1978-79



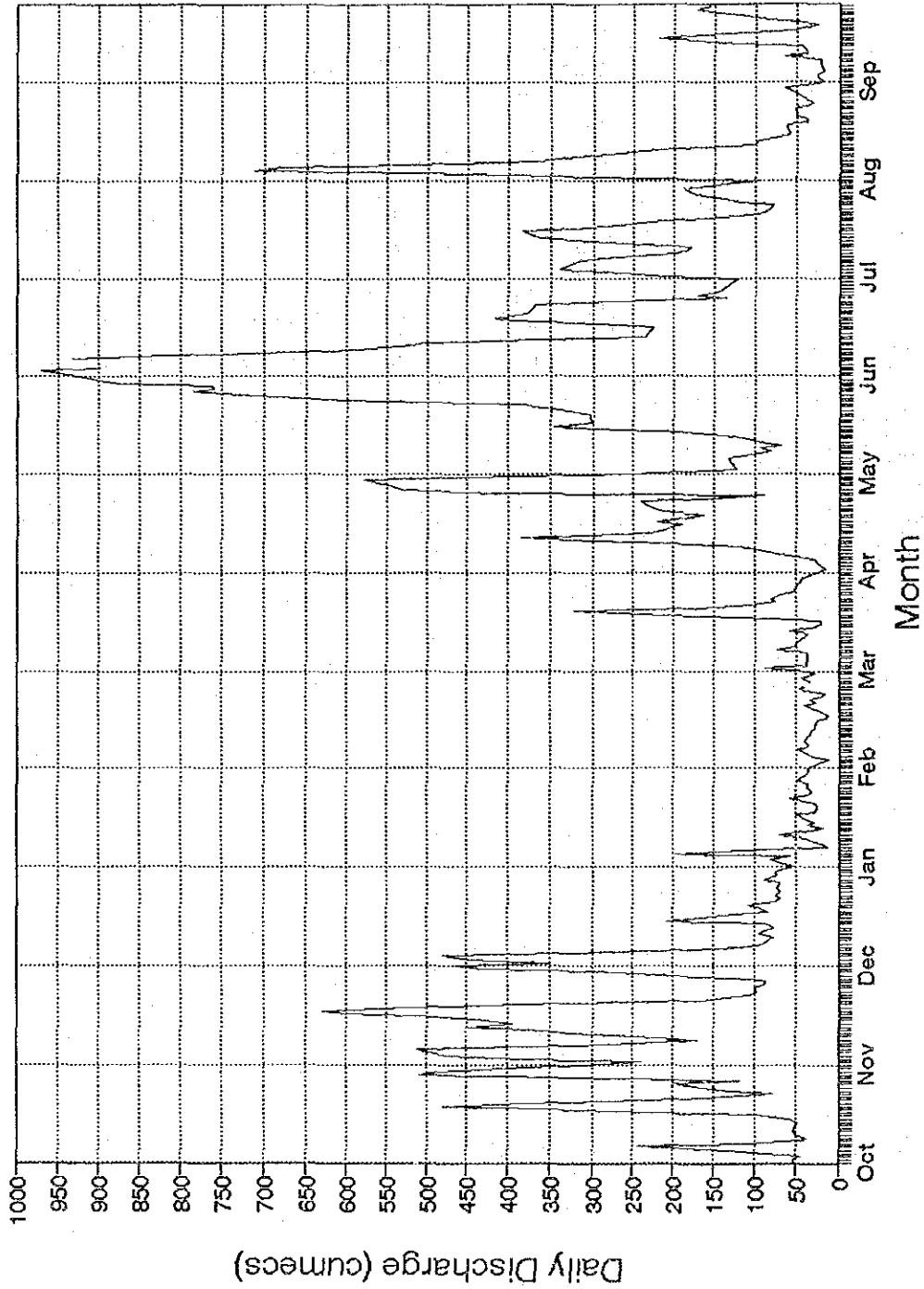
DAILY FLOWS AT PUTUPAULA
IN HYDROLOGICAL YEAR 1979-80



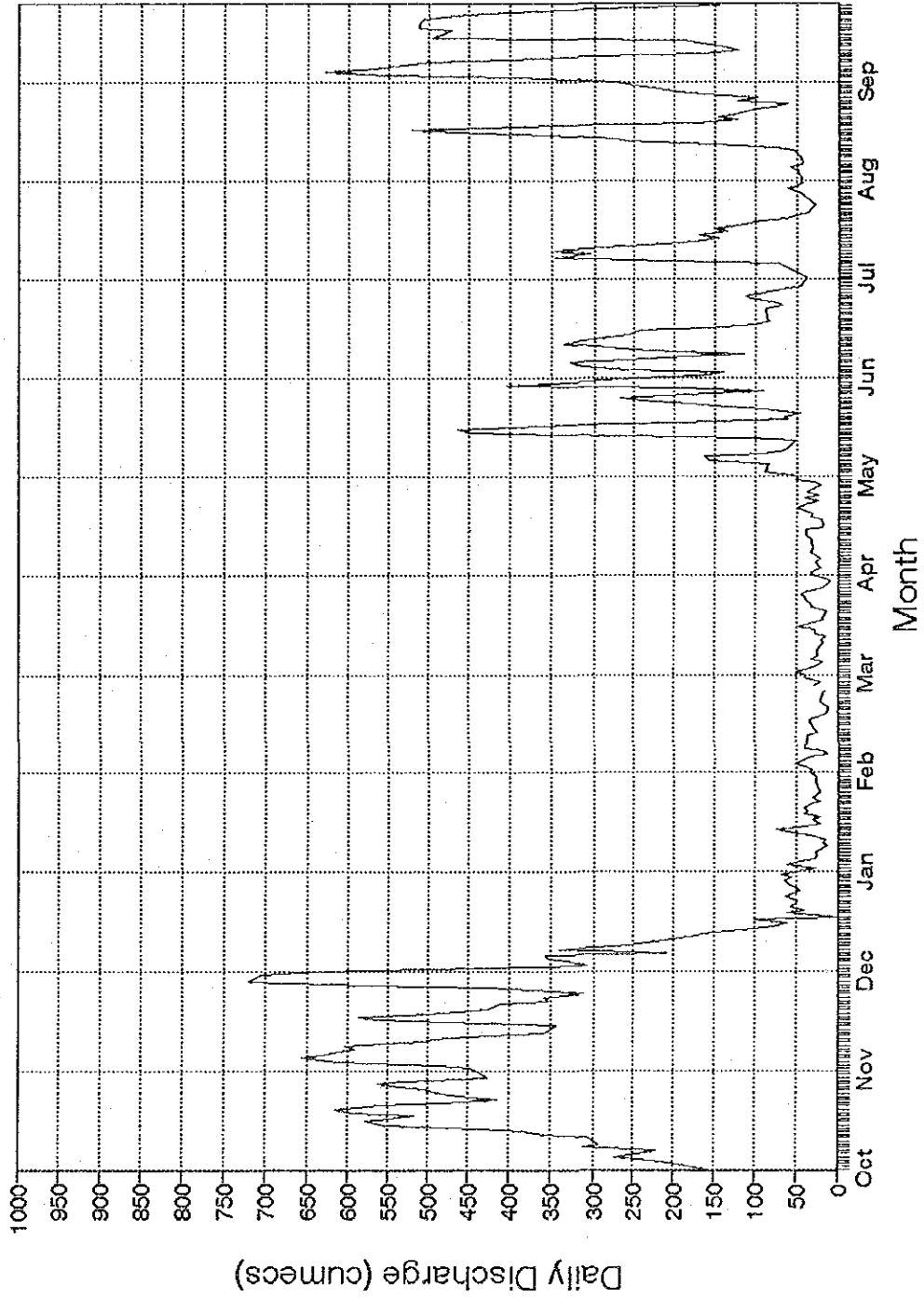
DAILY FLOWS AT PUTUPAULA
IN HYDROLOGICAL YEAR 1980-81



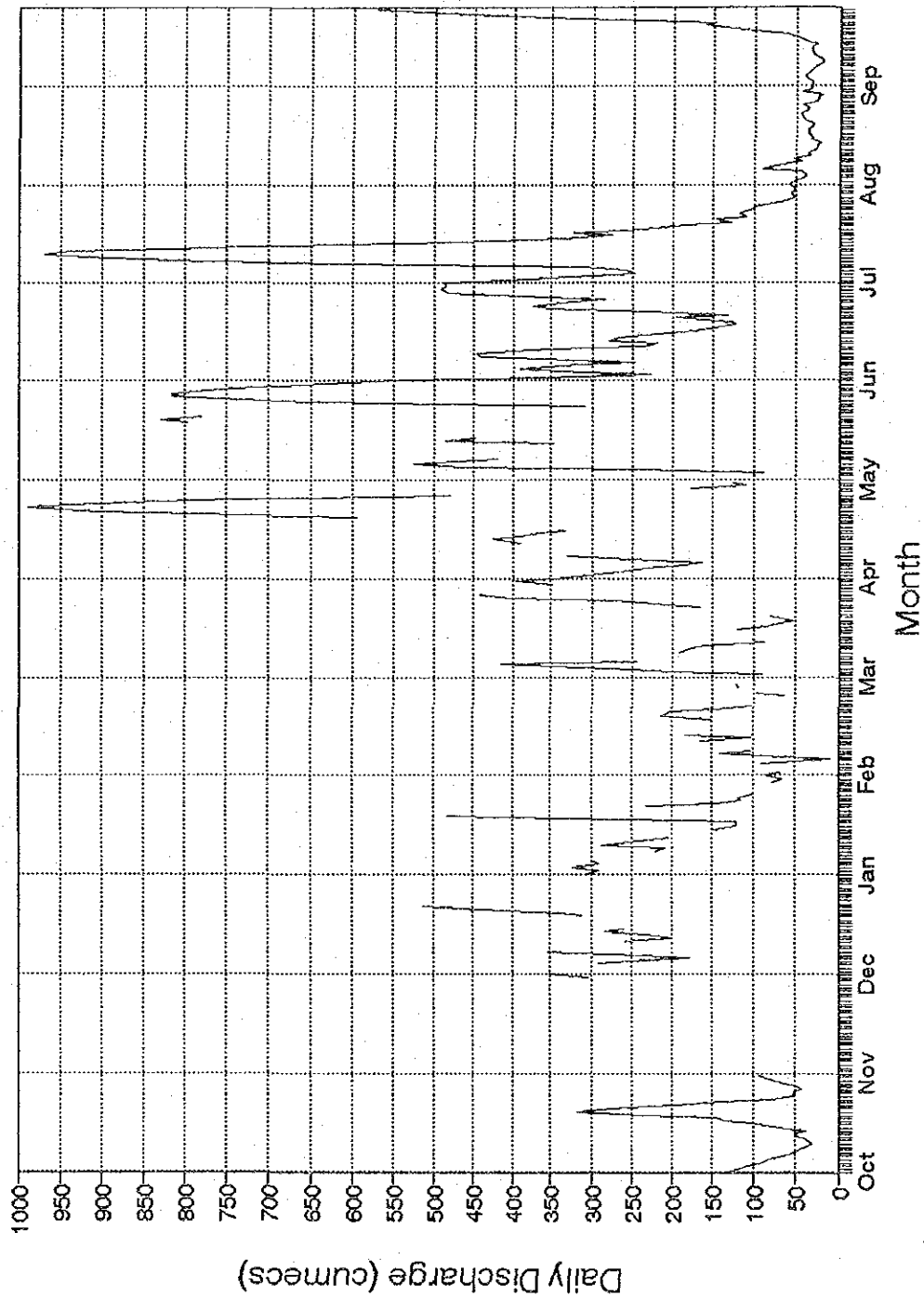
DAILY FLOWS AT PUTUPAULA
IN HYDROLOGICAL YEAR 1981-82



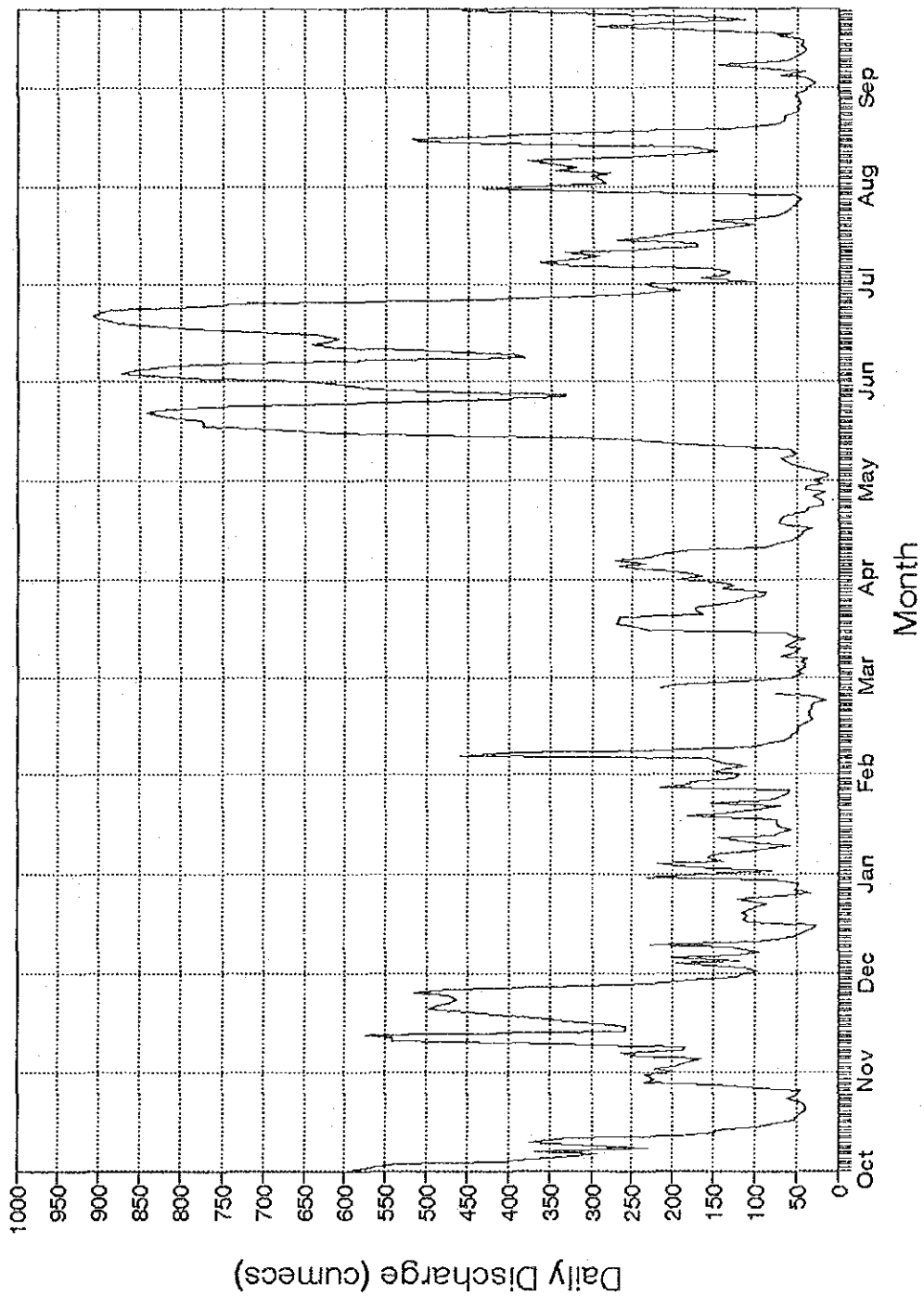
DAILY FLOWS AT PUTUPAULA
IN HYDROLOGICAL YEAR 1982-83



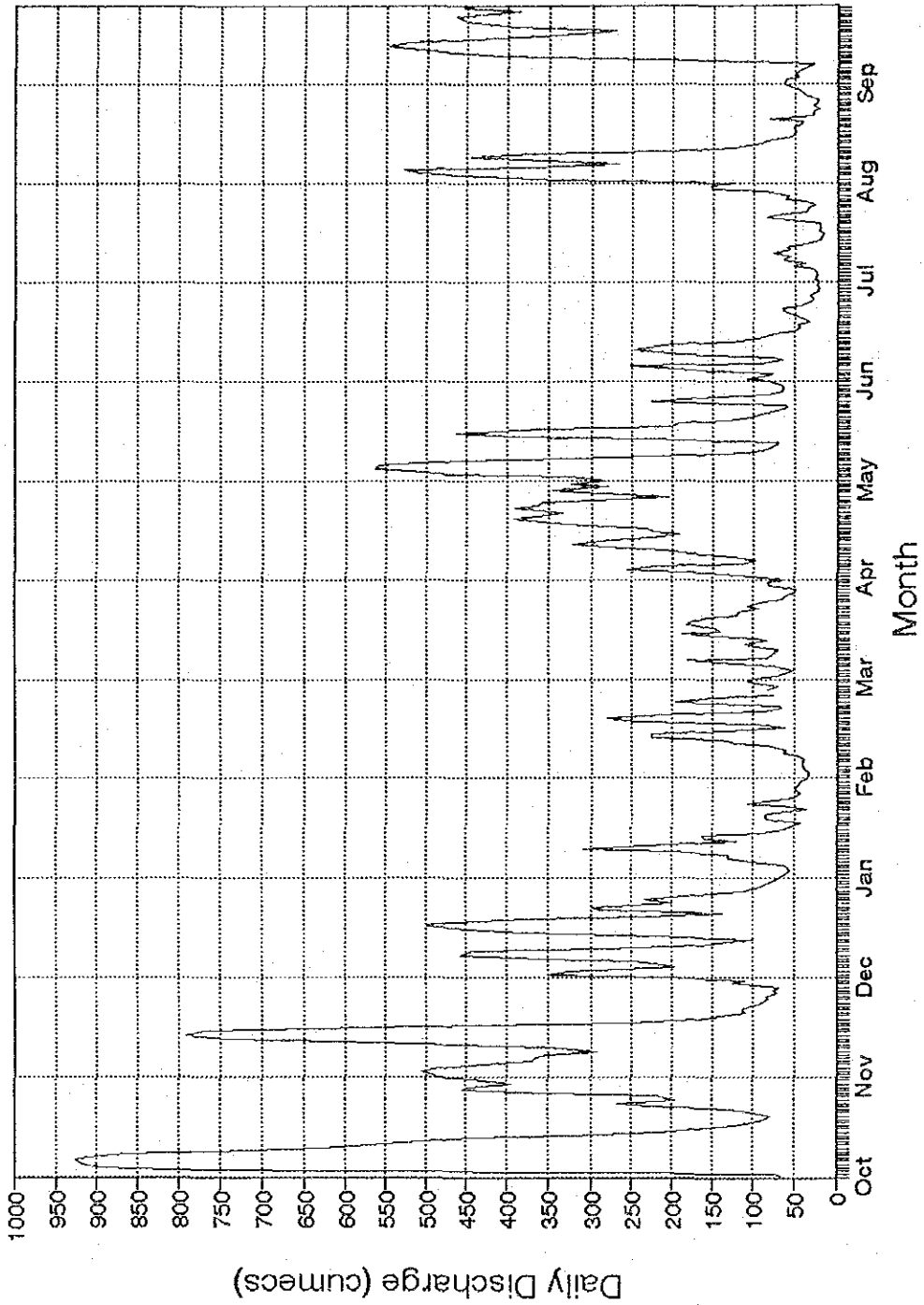
DAILY FLOWS AT PUTUPAULA IN HYDROLOGICAL YEAR 1983-84



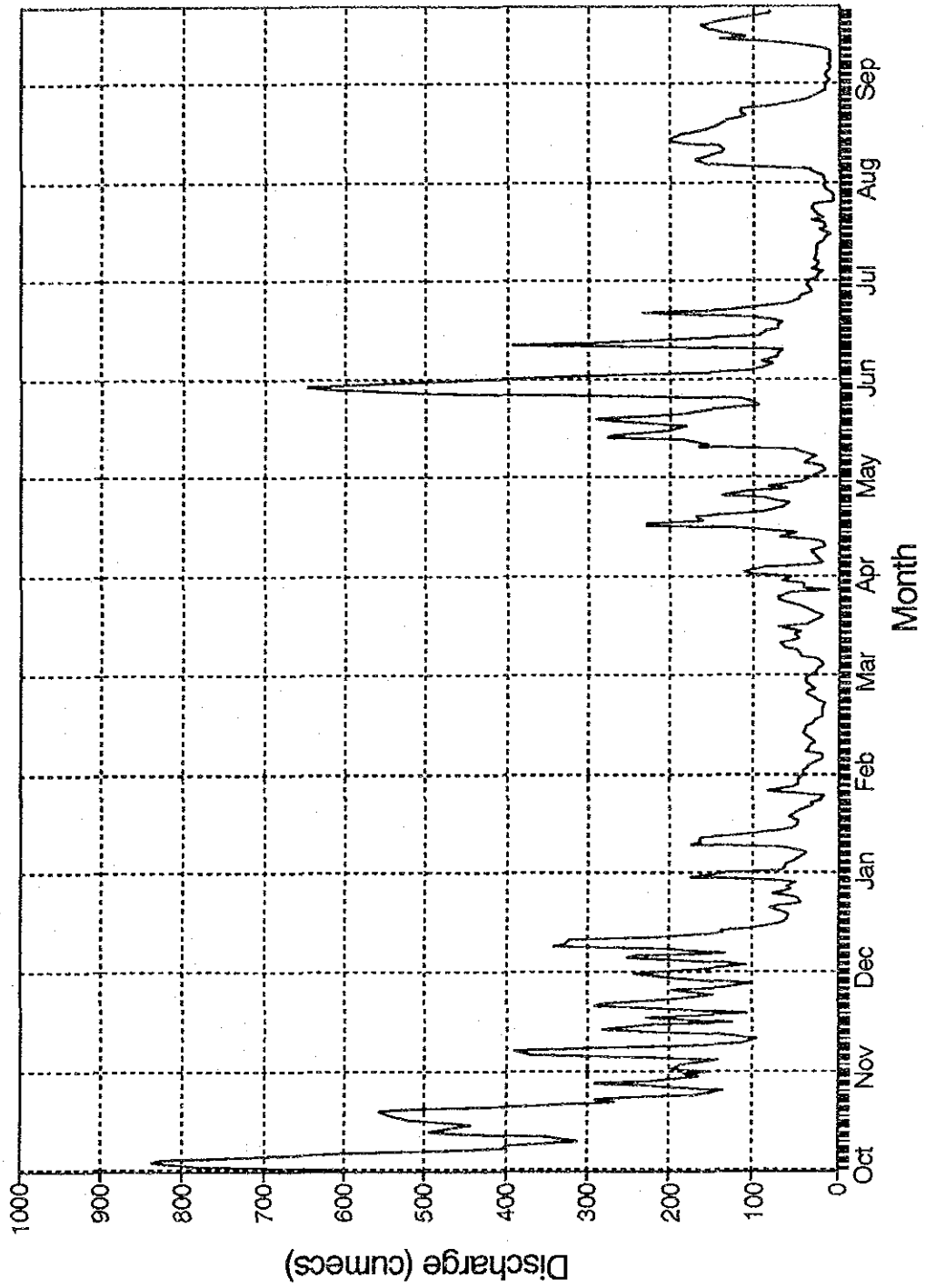
DAILY FLOWS AT PUTUPAULA
IN HYDROLOGICAL YEAR 1984-85



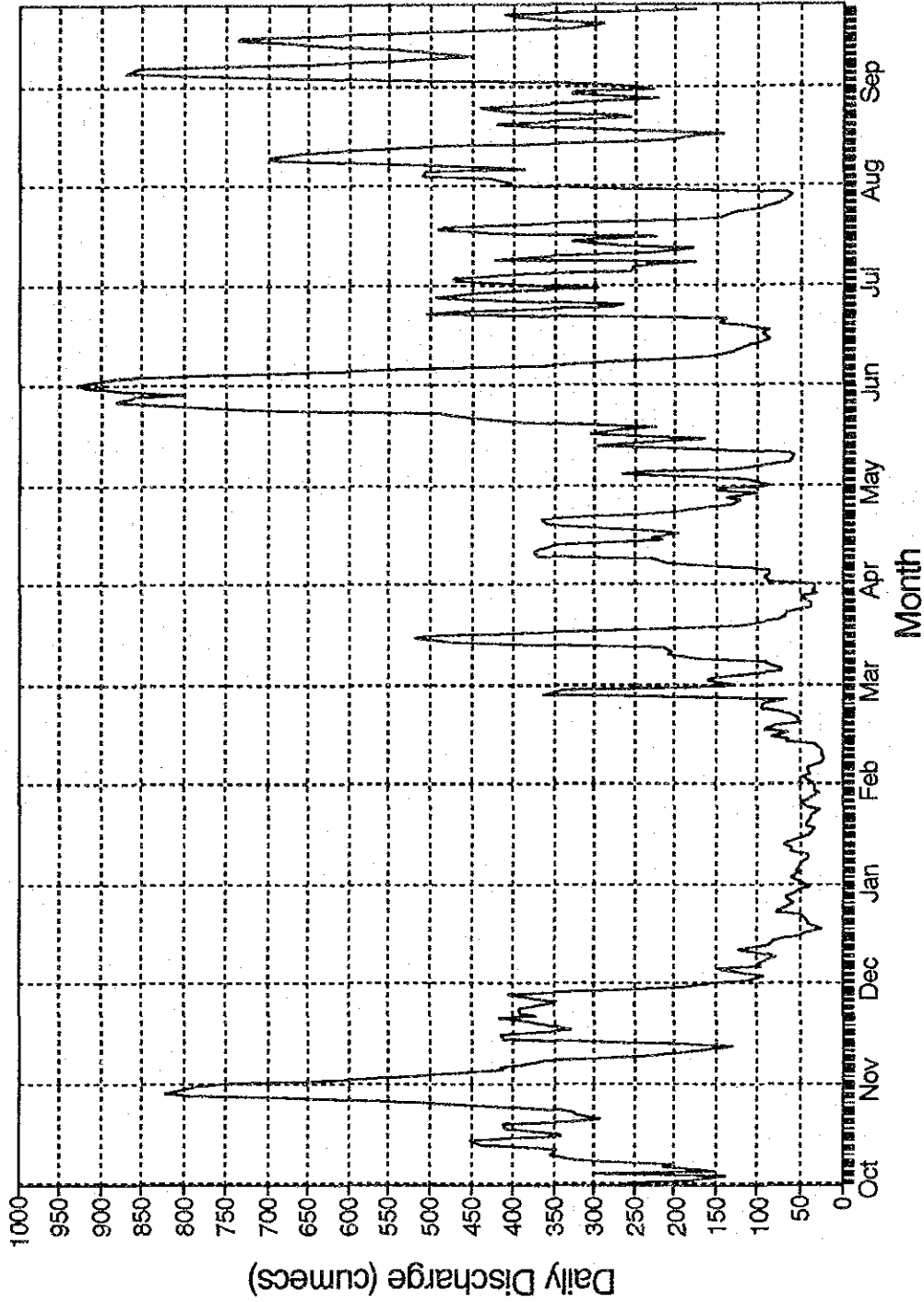
DAILY FLOWS AT PUTUPAULA
IN HYDROLOGICAL YEAR 1985-86



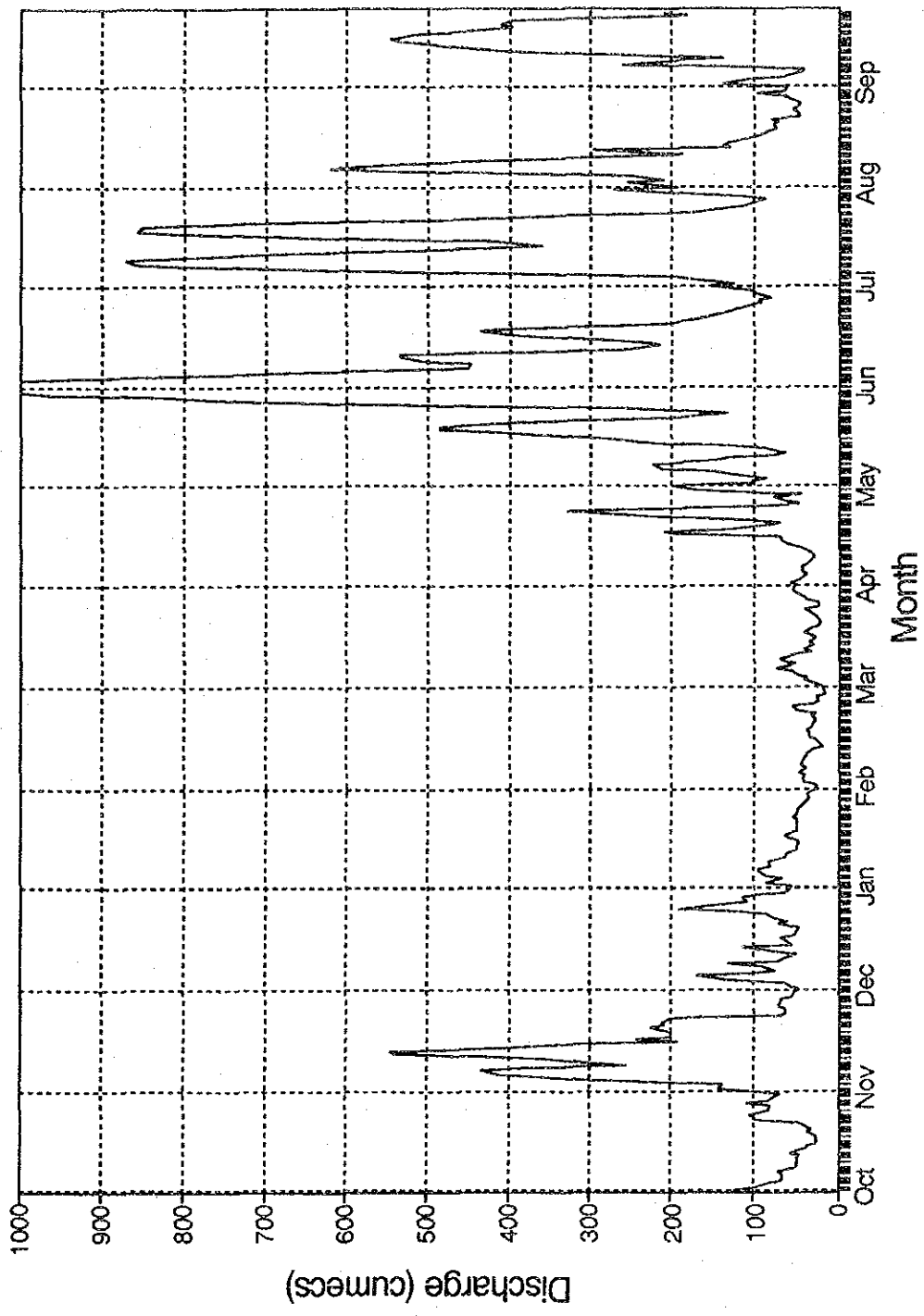
DAILY FLOWS AT PUTUPAULA
in Hydrological Year 1986/87



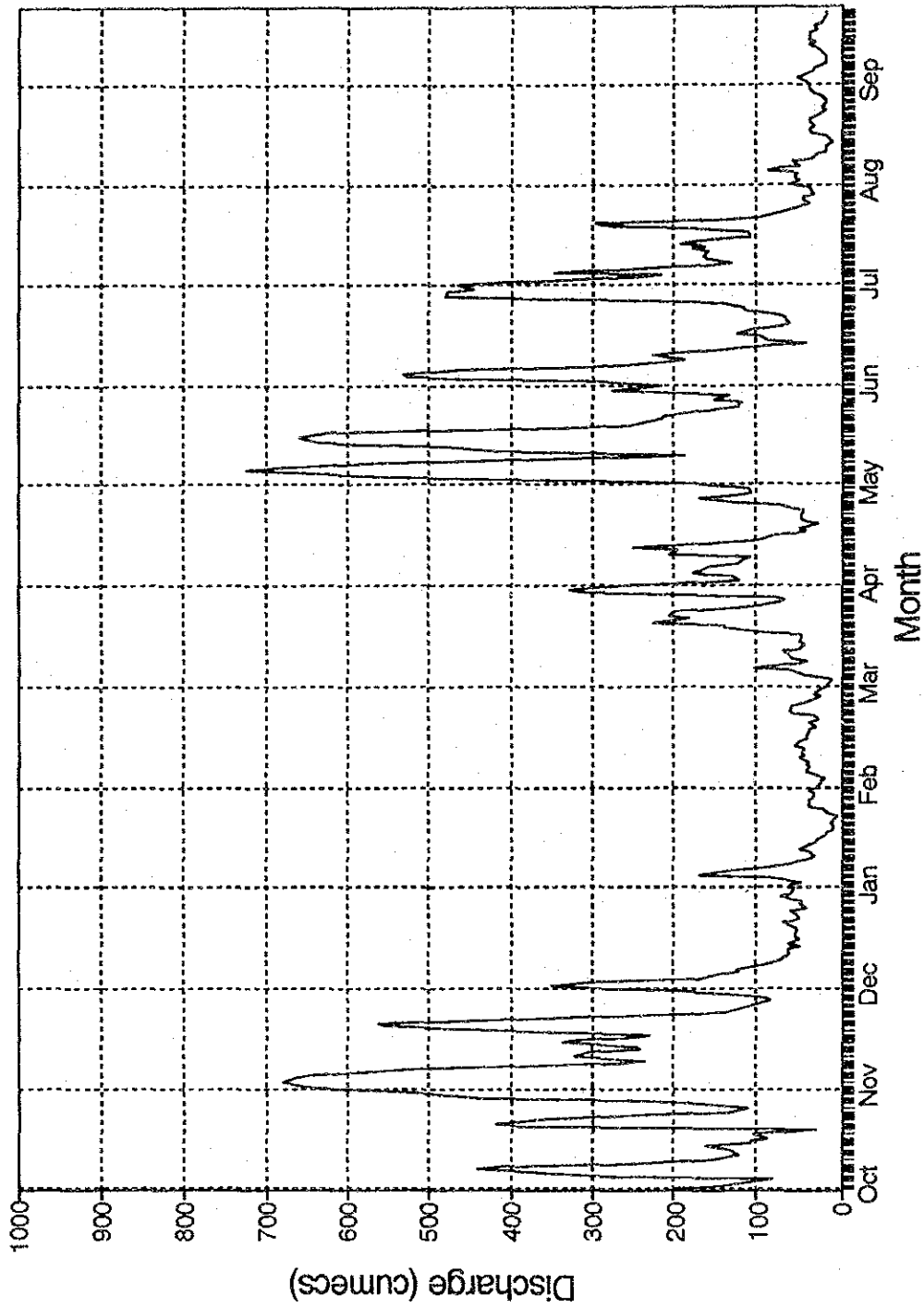
DAILY FLOWS AT PUTUPAULA
IN HYDROLOGICAL YEAR 1987-88



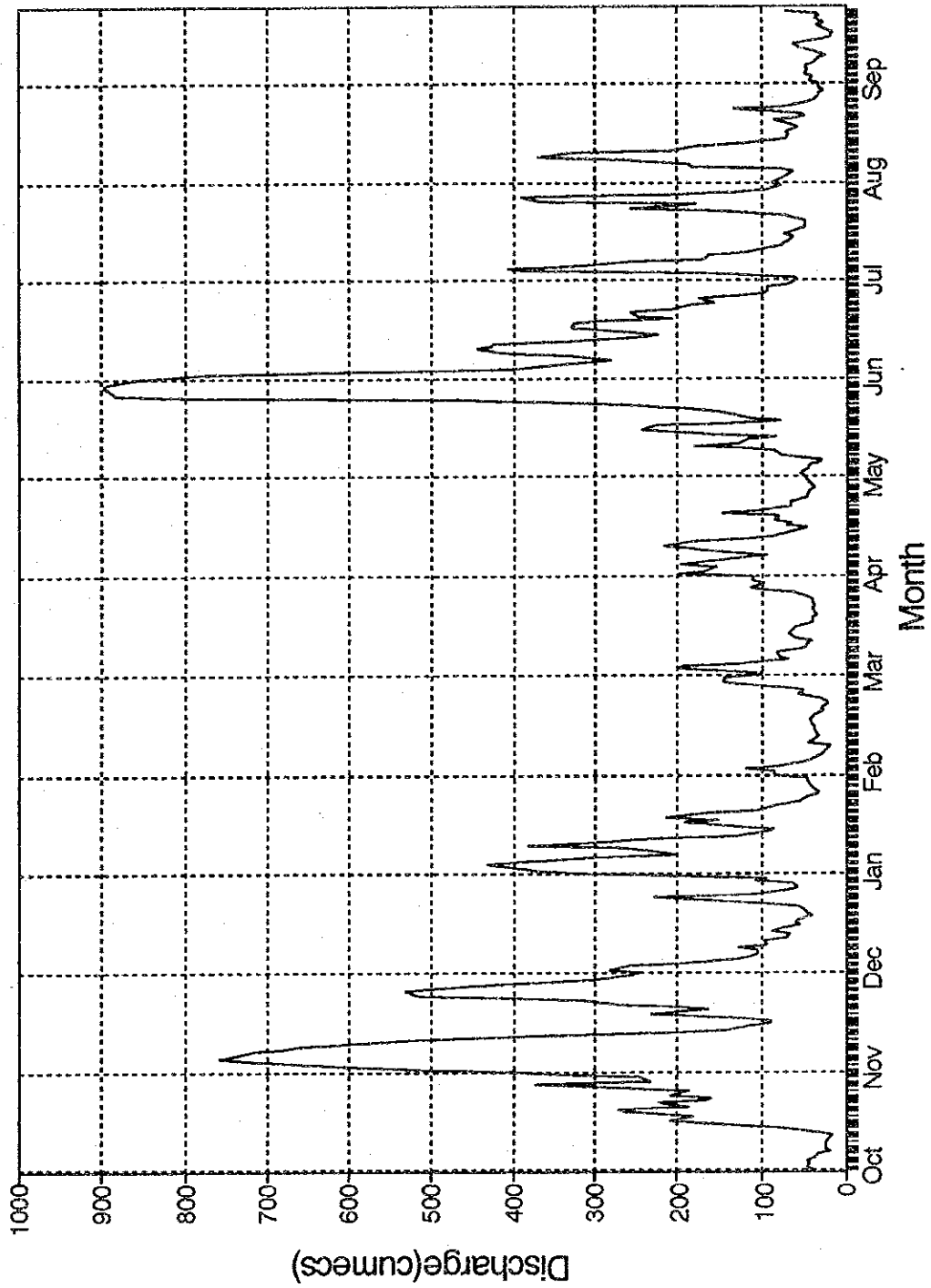
DAILY FLOWS AT PUTUPAULA in Hydrological Year 1988/89



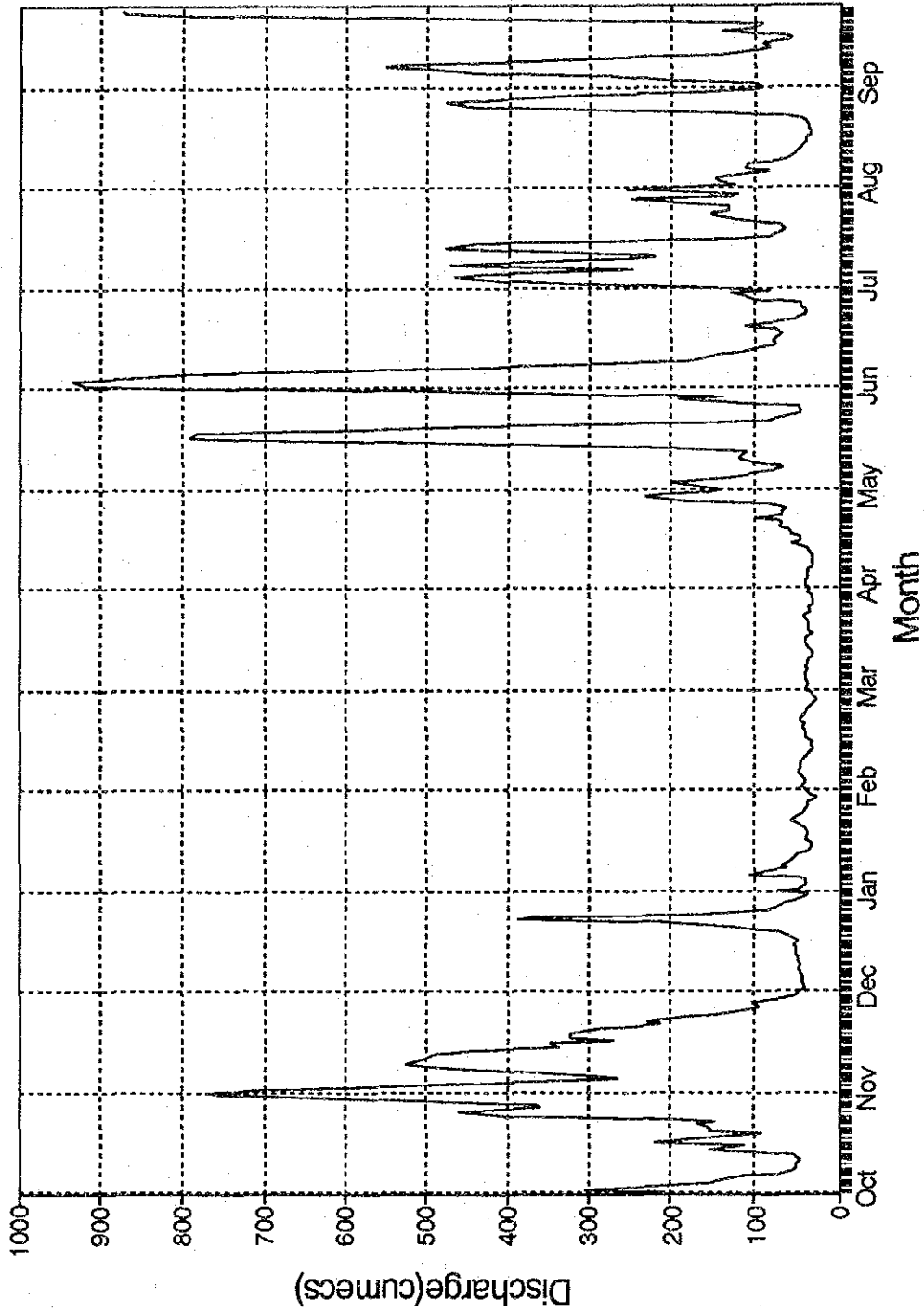
DAILY FLOWS AT PUTUPAULA
in Hydrological Year 1989/90



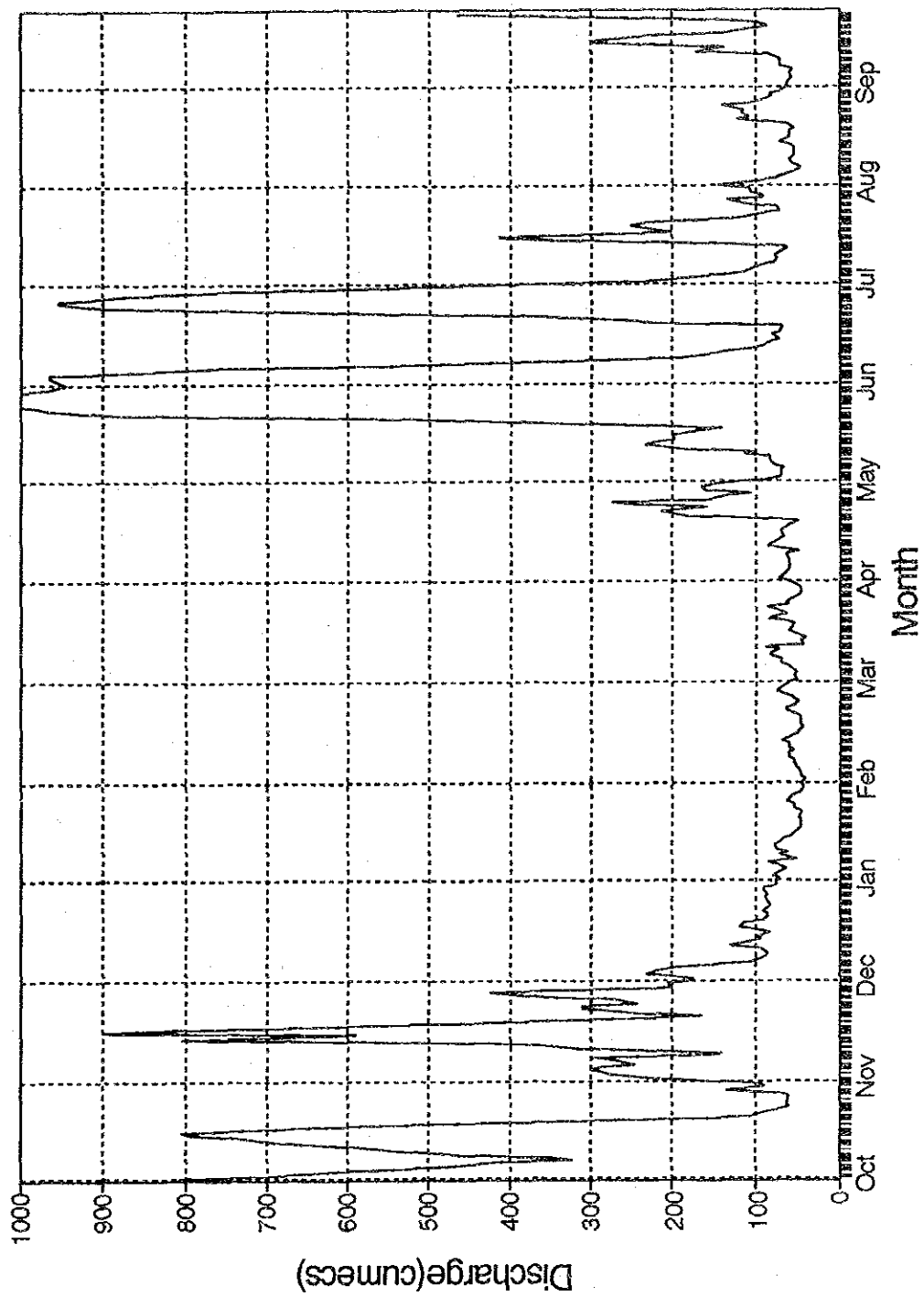
DAILY FLOWS AT PUTUPAULA
in Hydrological Year 1990/91



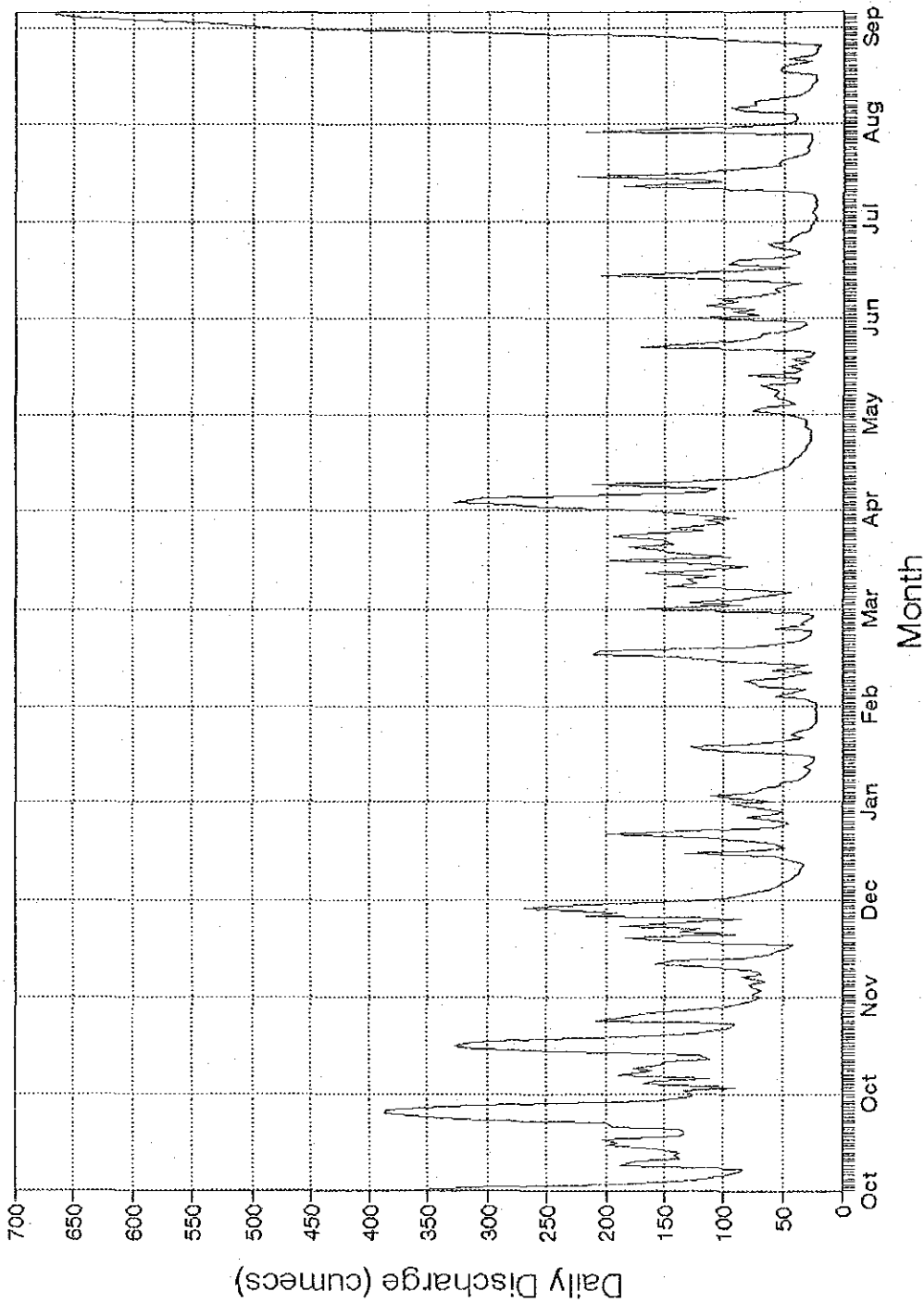
DAILY FLOWS AT PUTUPAULA
in Hydrological year 1991/92



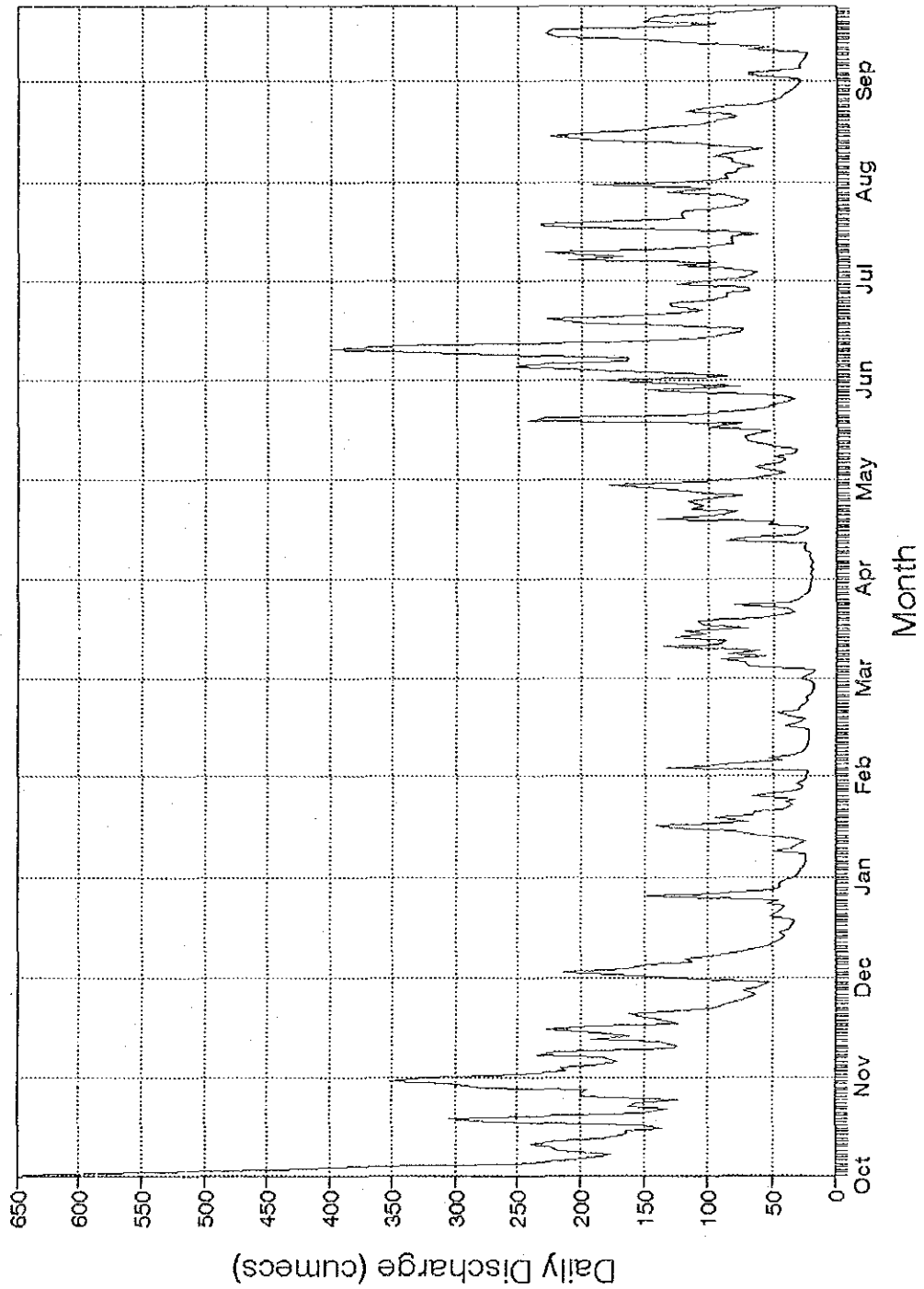
DAILY FLOWS AT PUTUPAULA in Hydrological year 1992/93



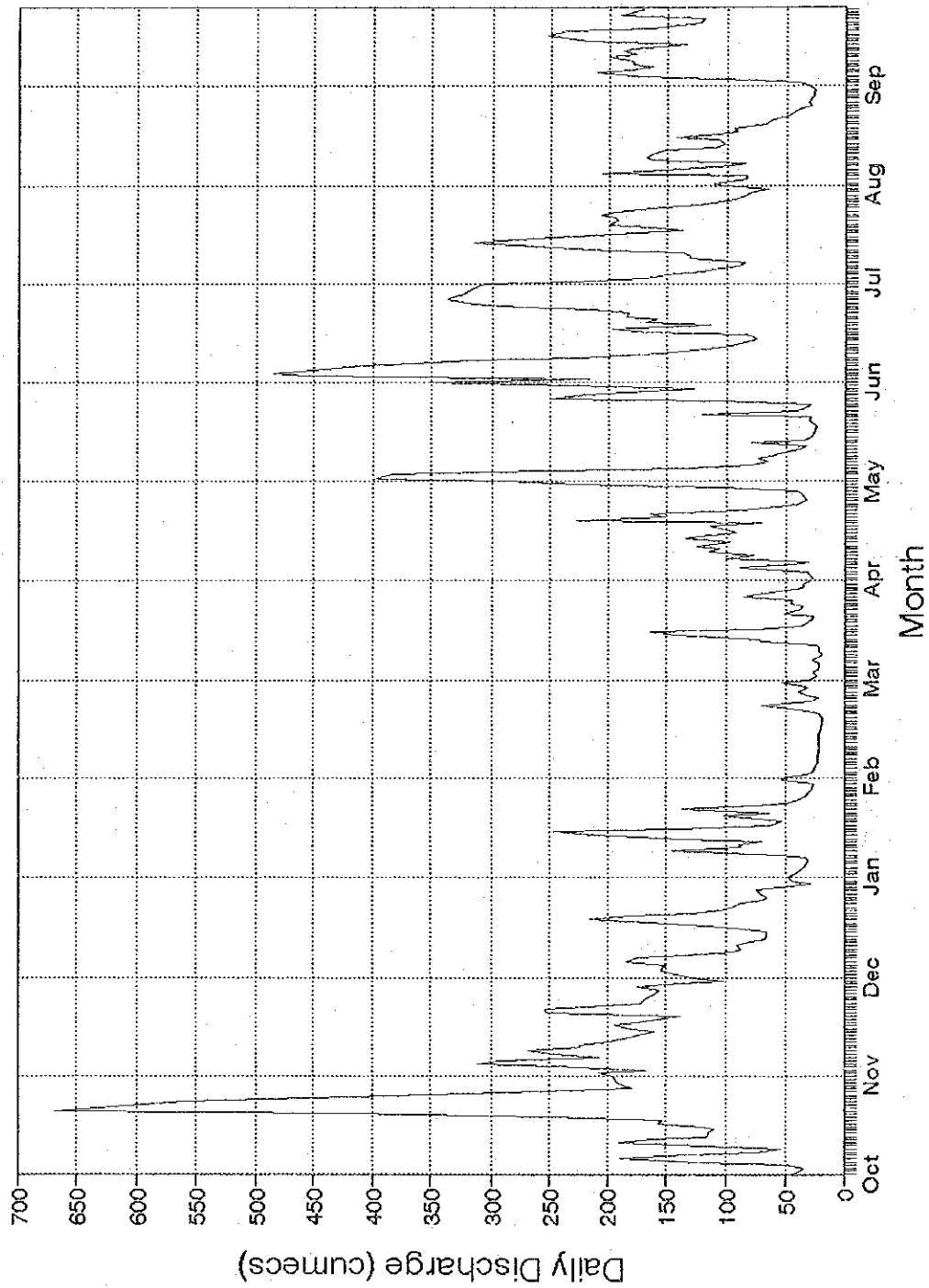
DAILY FLOWS AT ELLAGAWA
IN HYDROLOGICAL YEAR 1965-66



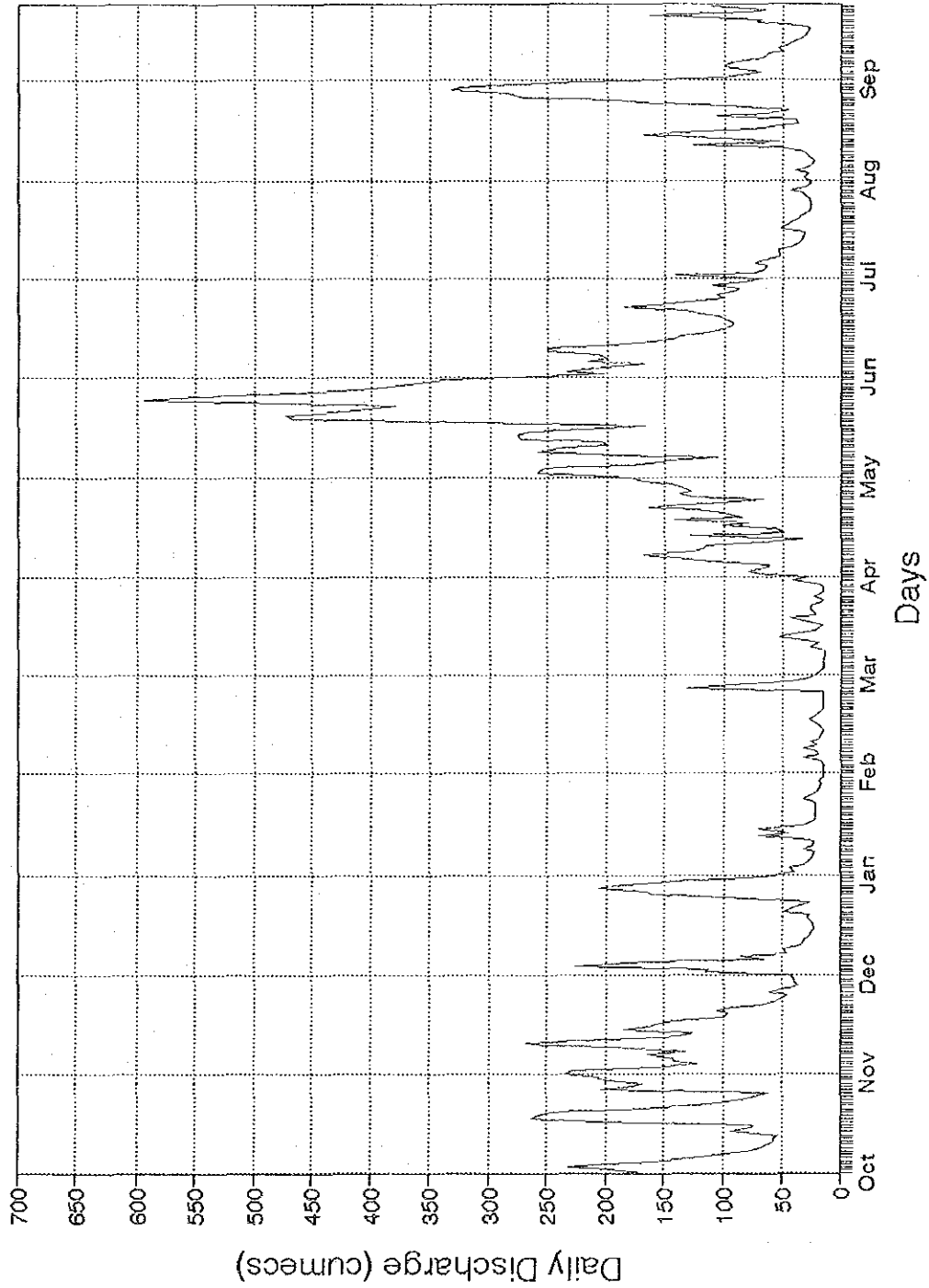
DAILY FLOWS AT ELLAGAWA
IN HYDROLOGICAL YEAR 1966-67



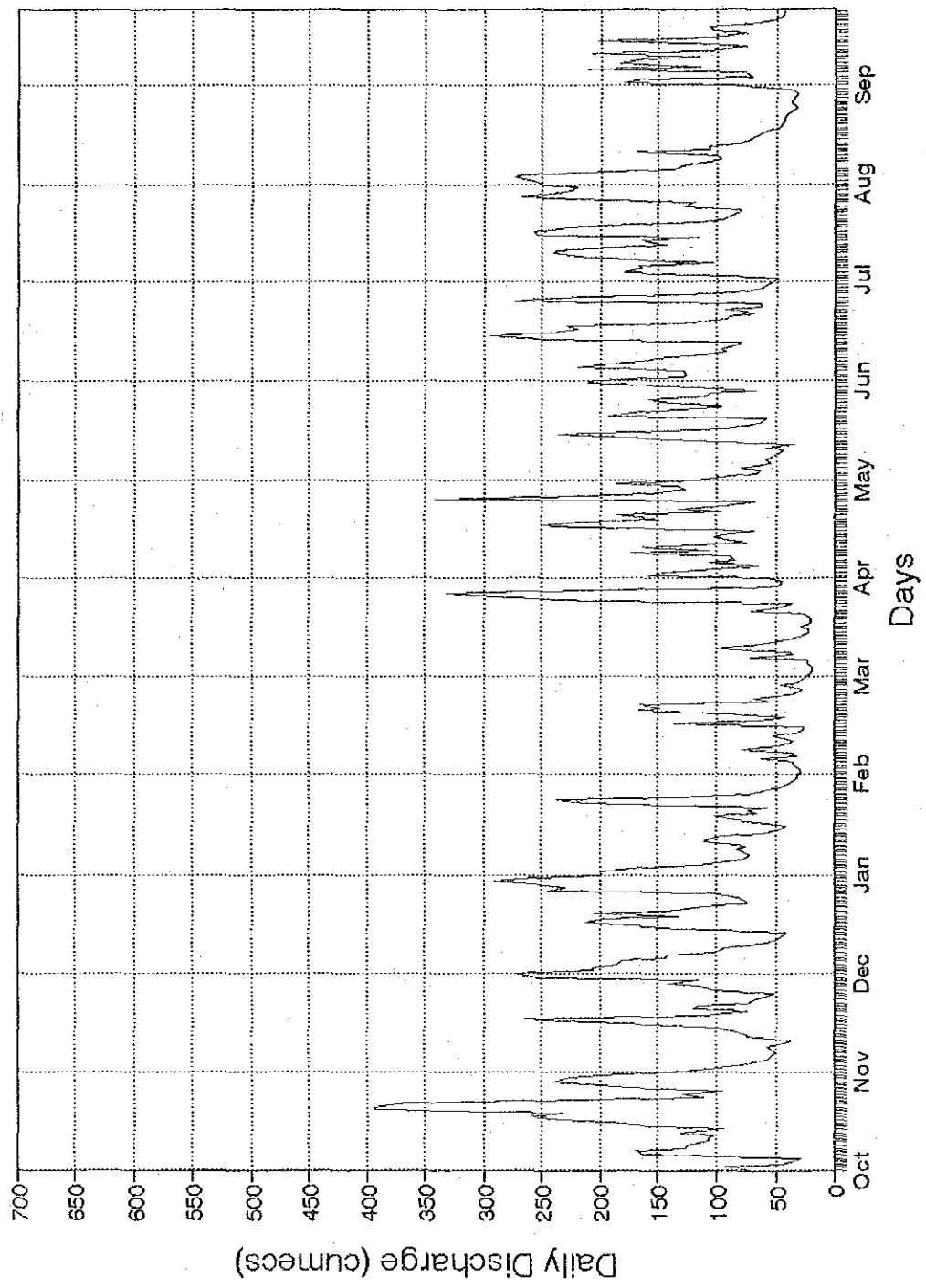
DAILY FLOWS AT ELLAGAWA
IN HYDROLOGICAL YEAR 1967-68



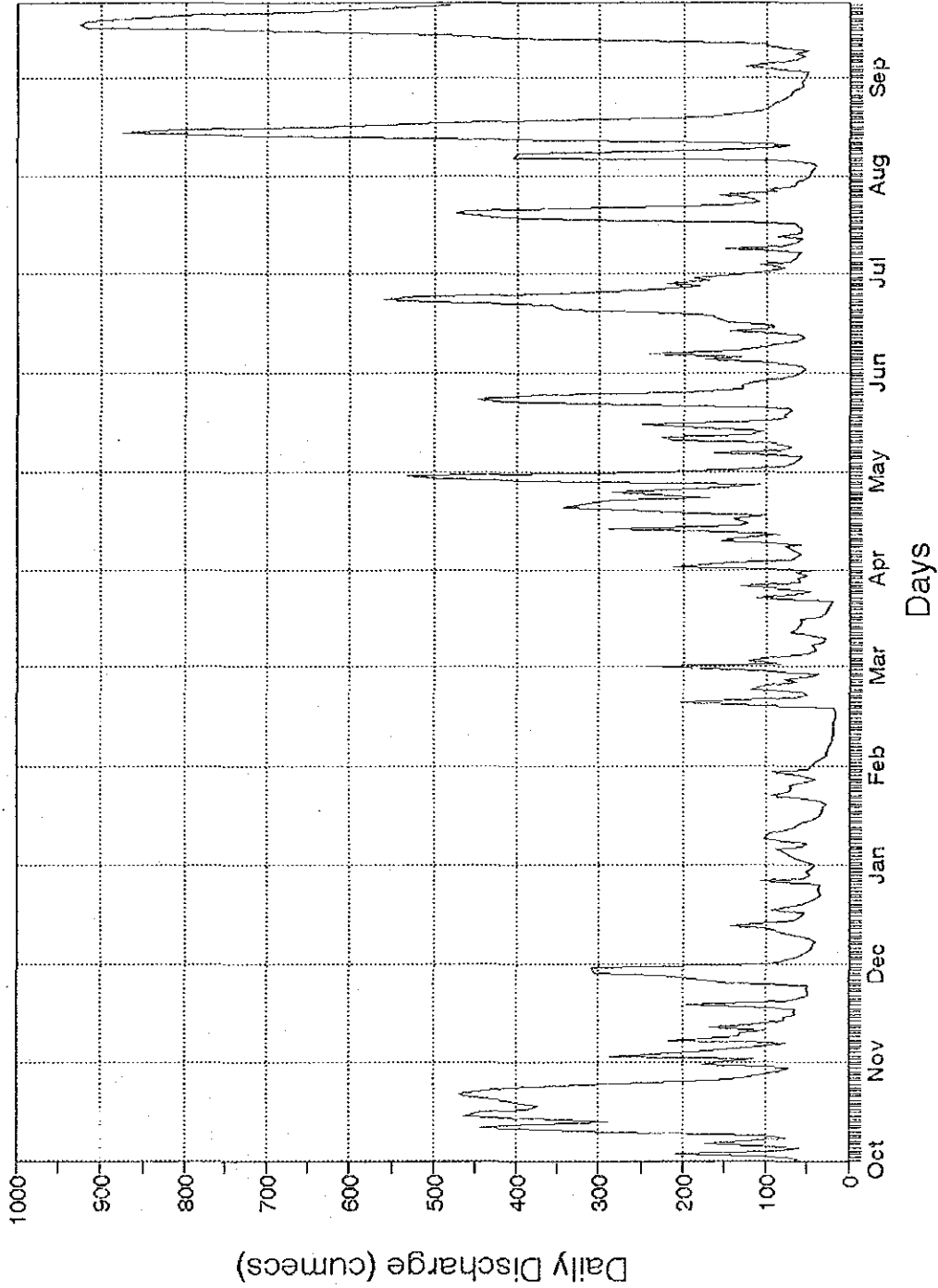
DAILY FLOWS AT ELLAGAWA
IN HYDROLOGICAL YEAR 1968-69



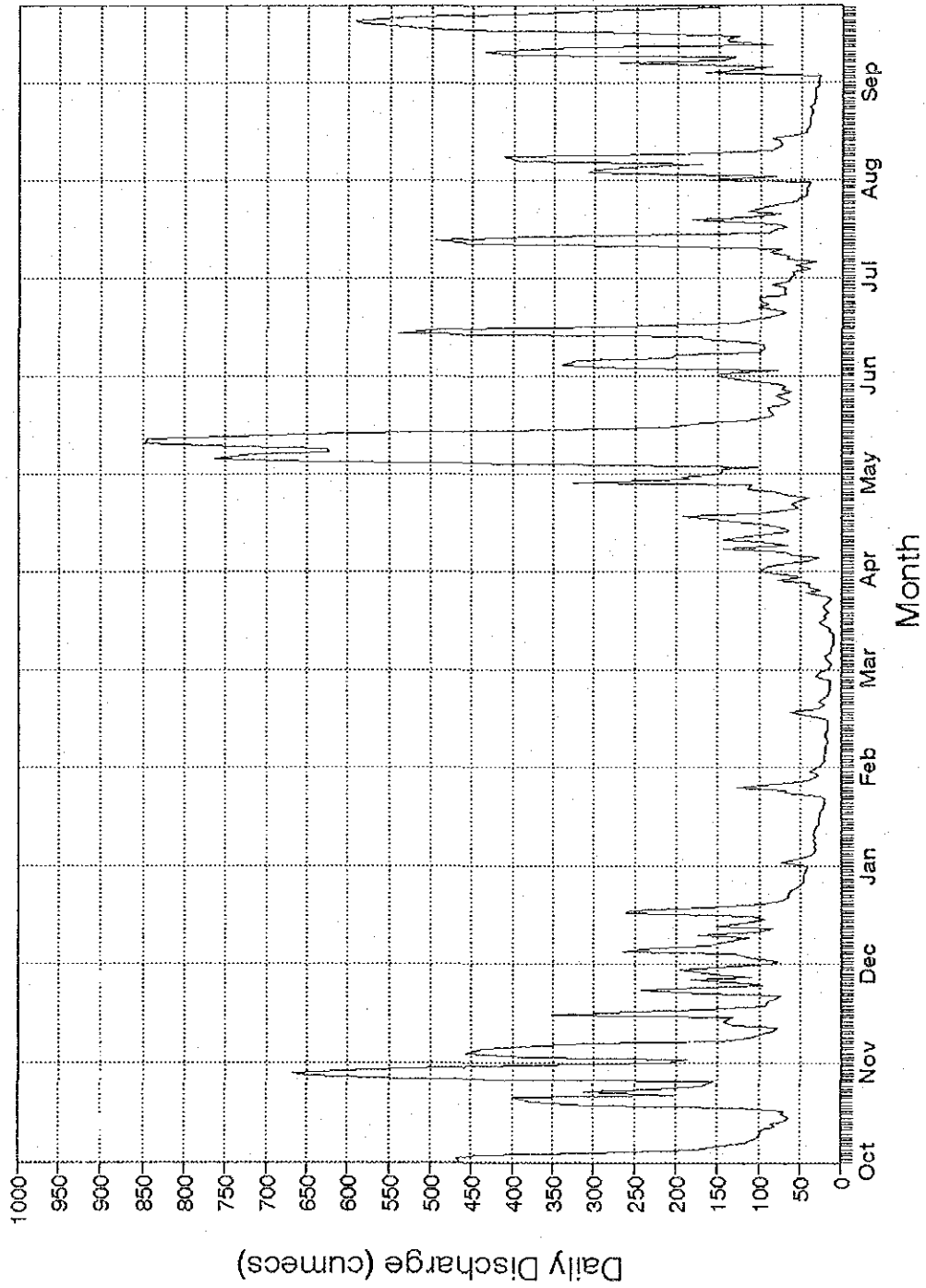
DAILY FLOWS AT ELLAGAWA
IN HYDROLOGICAL YEAR 1969-70



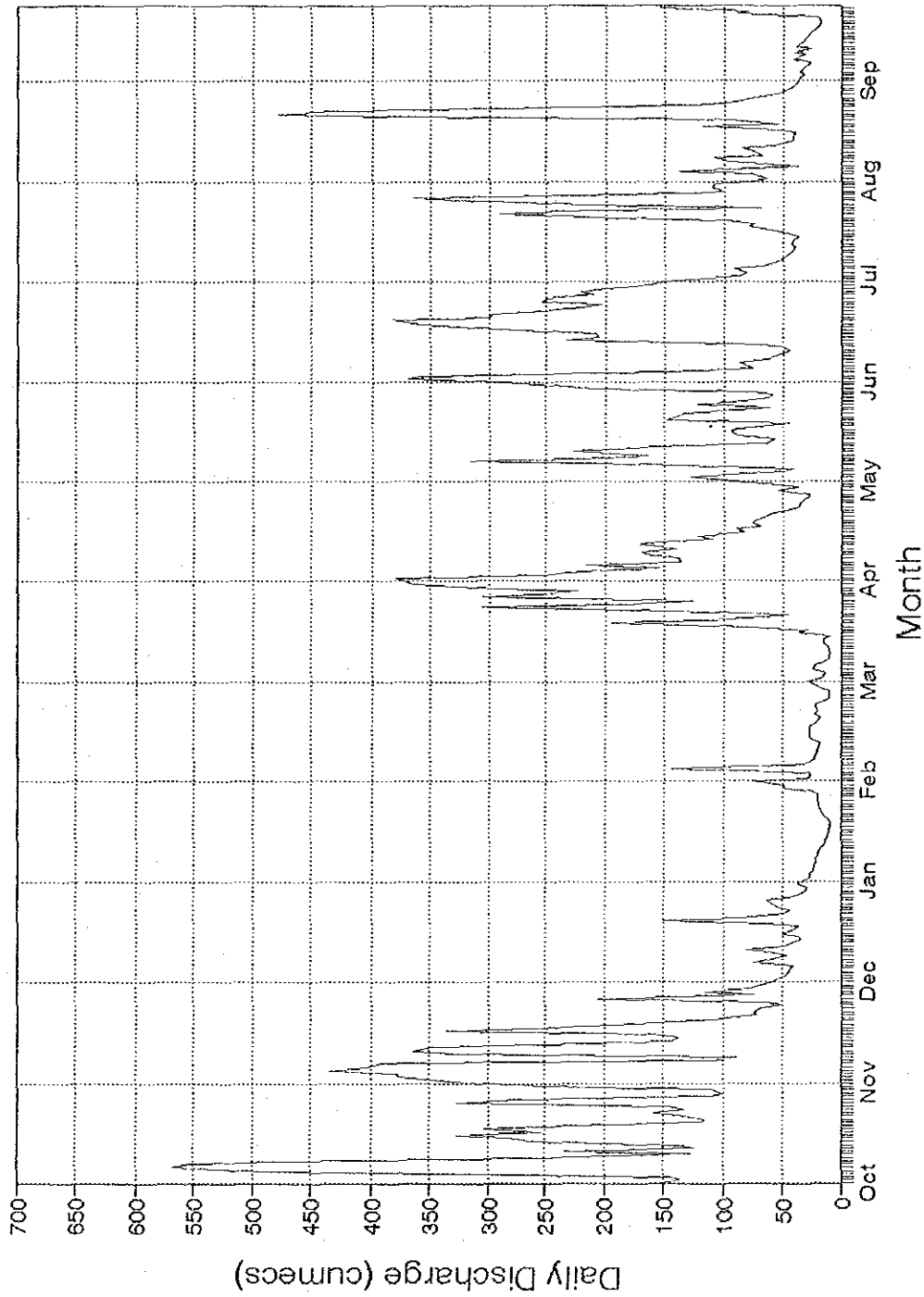
DAILY FLOWS AT ELLAGAWA
IN HYDROLOGICAL YEAR 1970-71



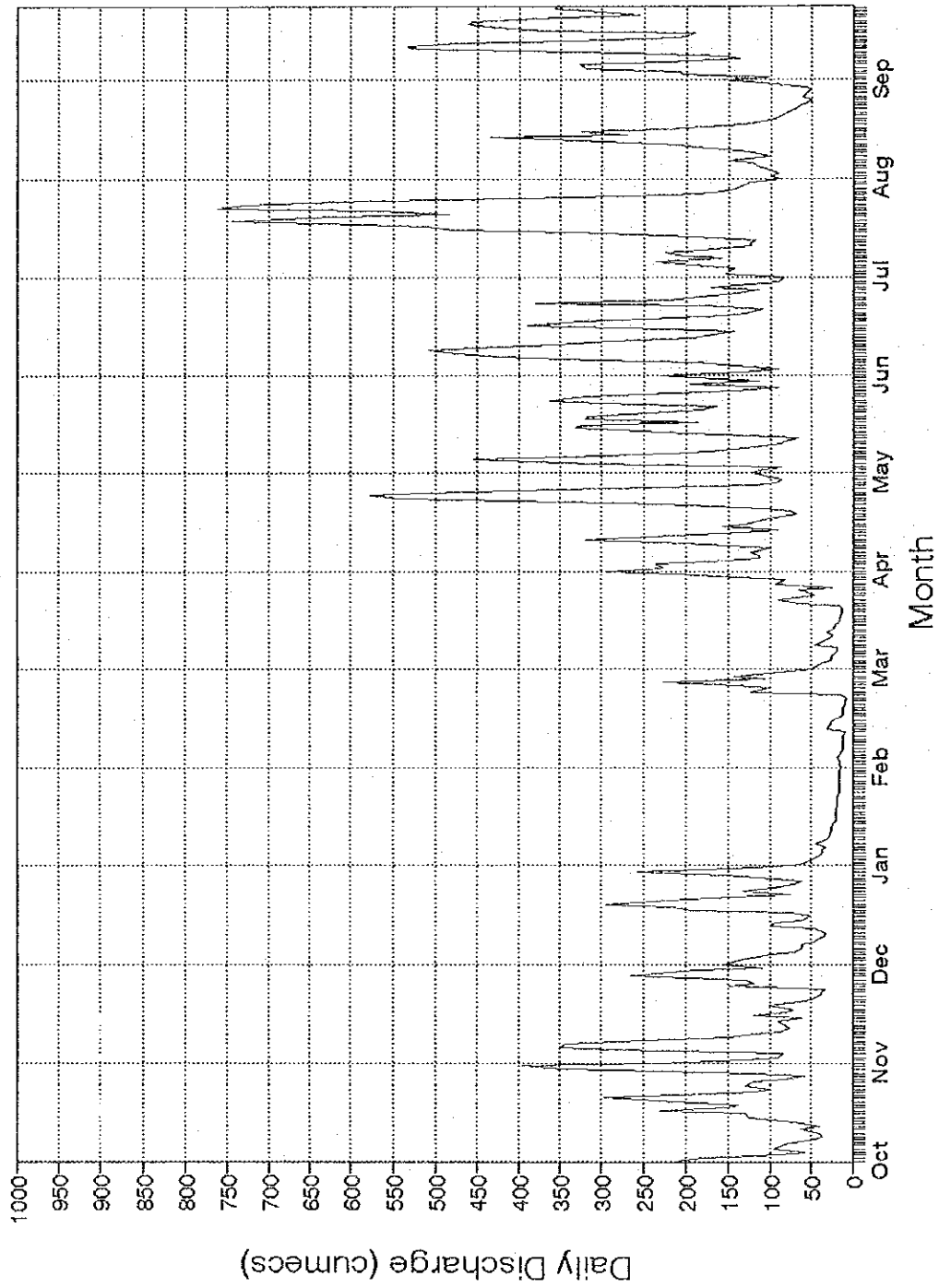
DAILY FLOWS AT ELLAGAWA
IN HYDROLOGICAL YEAR 1971-72



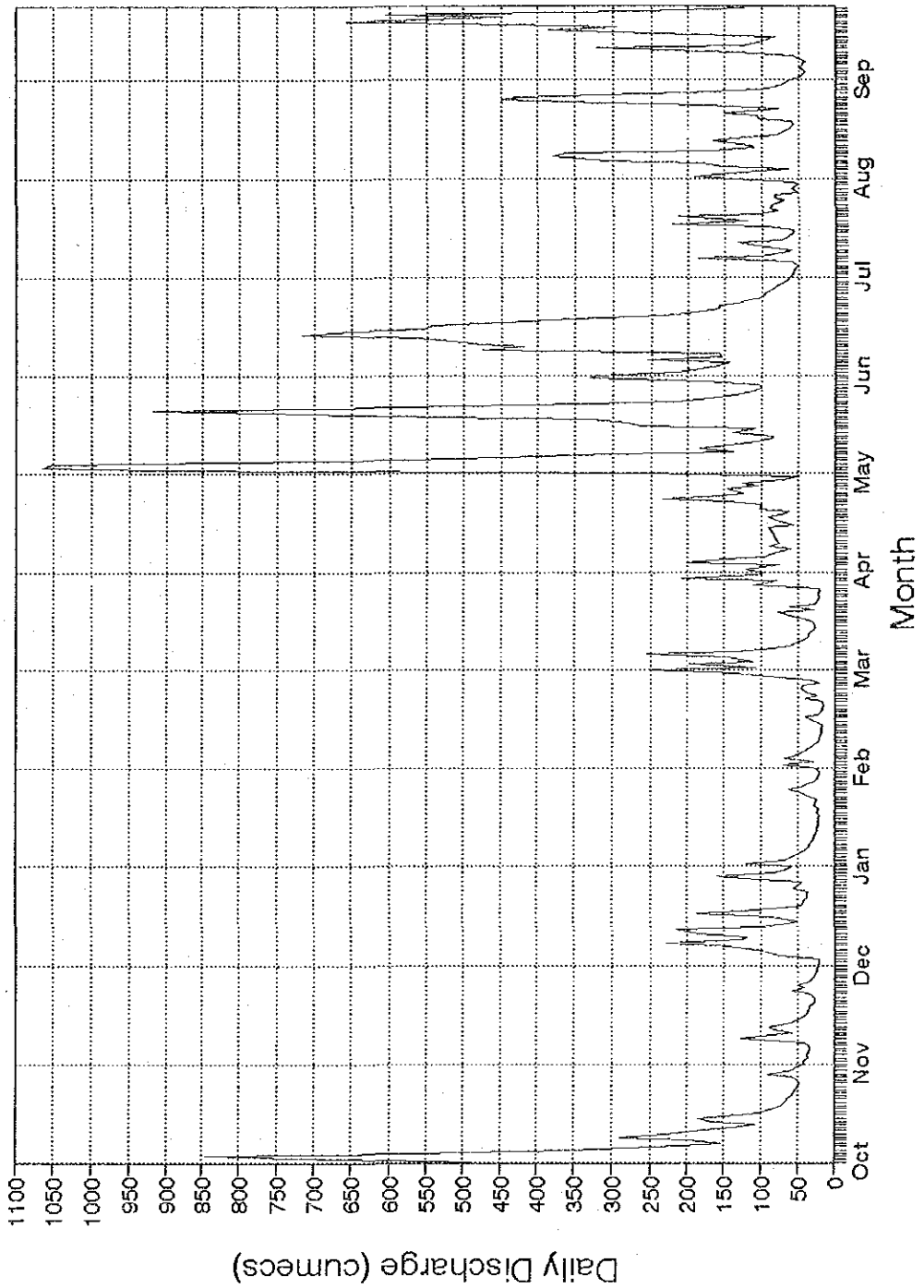
DAILY FLOWS AT ELLAGAWA
IN HYDROLOGICAL YEAR 1972-73



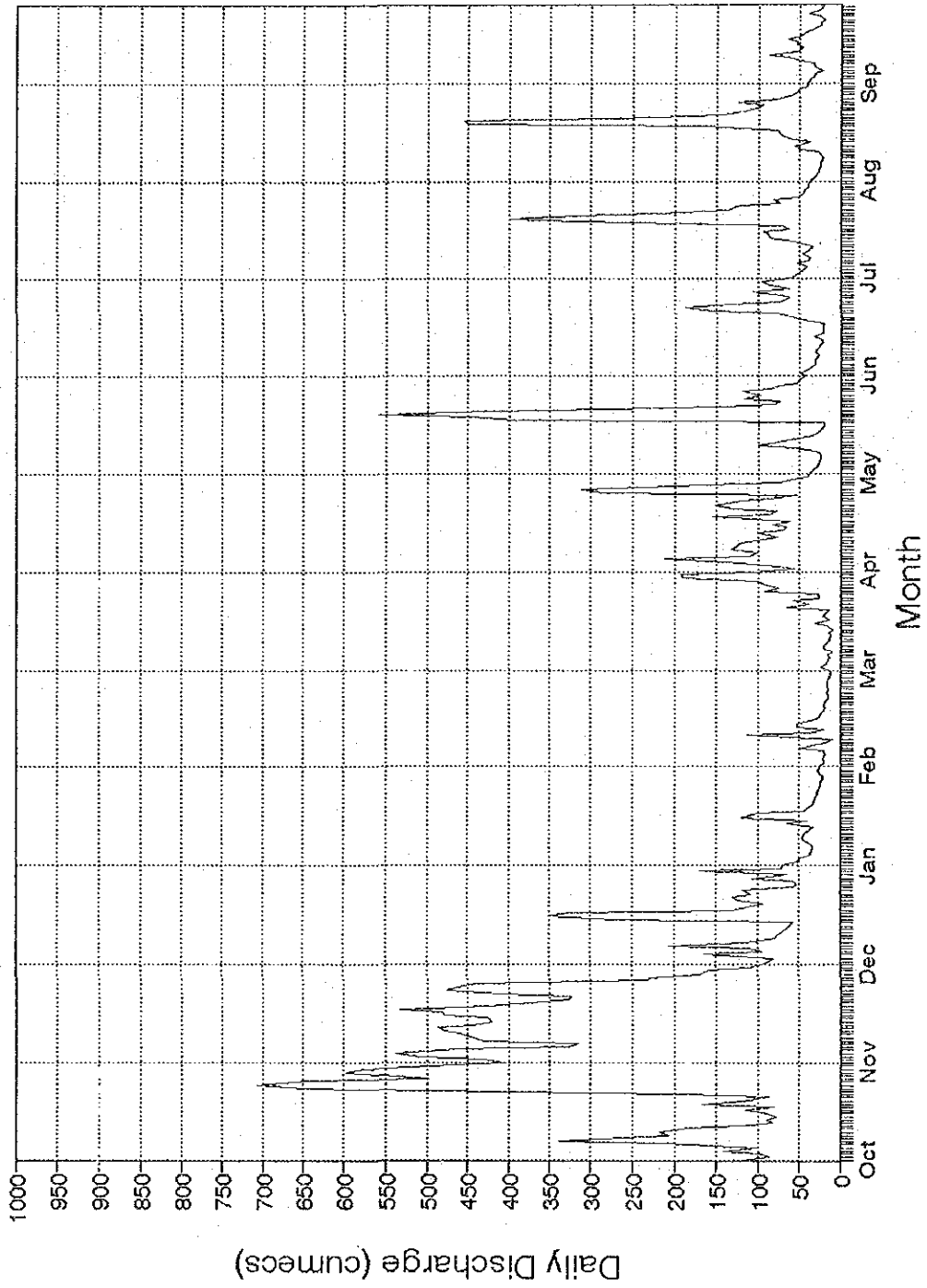
DAILY FLOWS AT ELLAGAWA
IN HYDROLOGICAL YEAR 1973-74



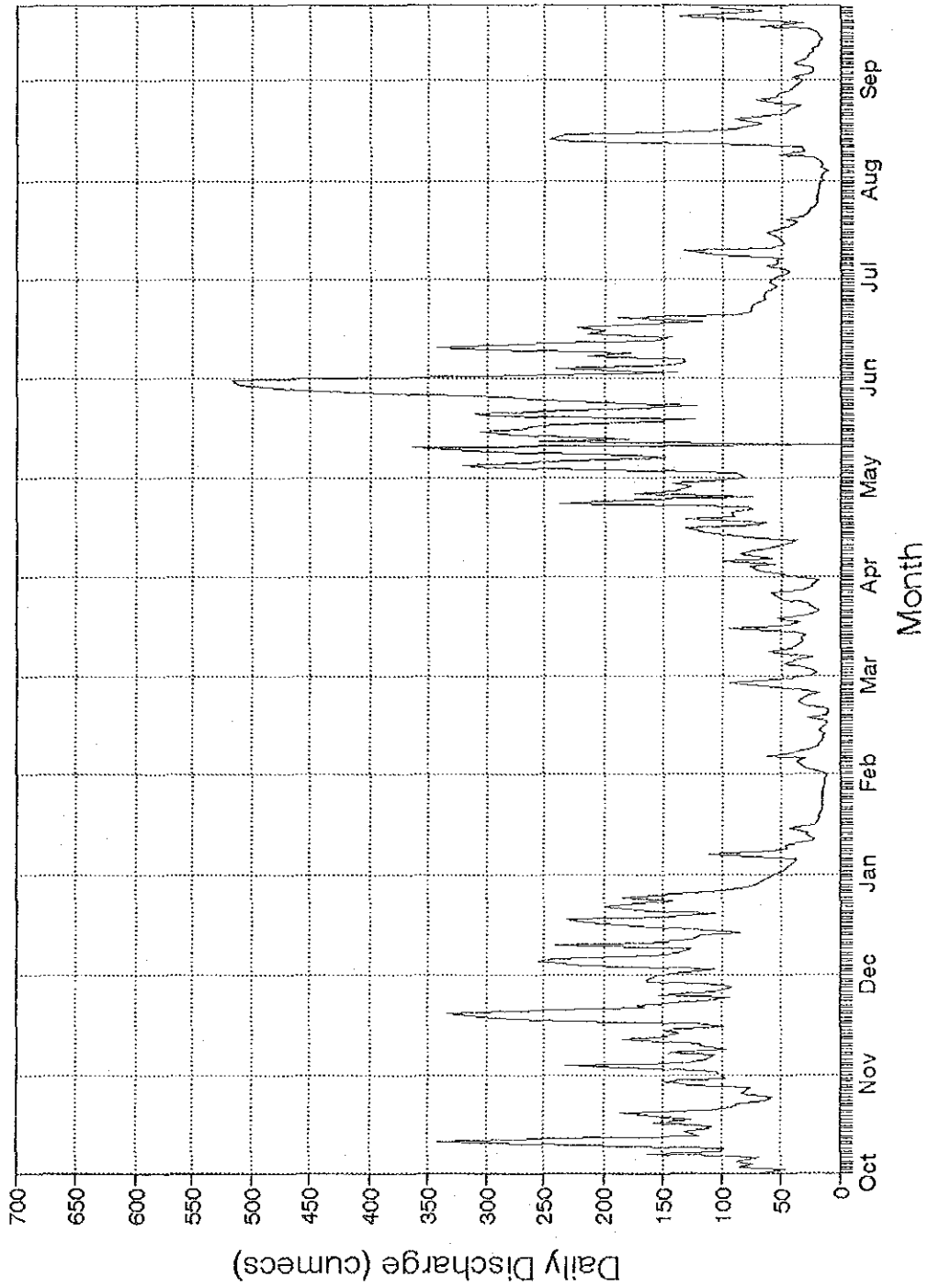
DAILY FLOWS AT ELLAGAWA
IN HYDROLOGICAL YEAR 1974-75



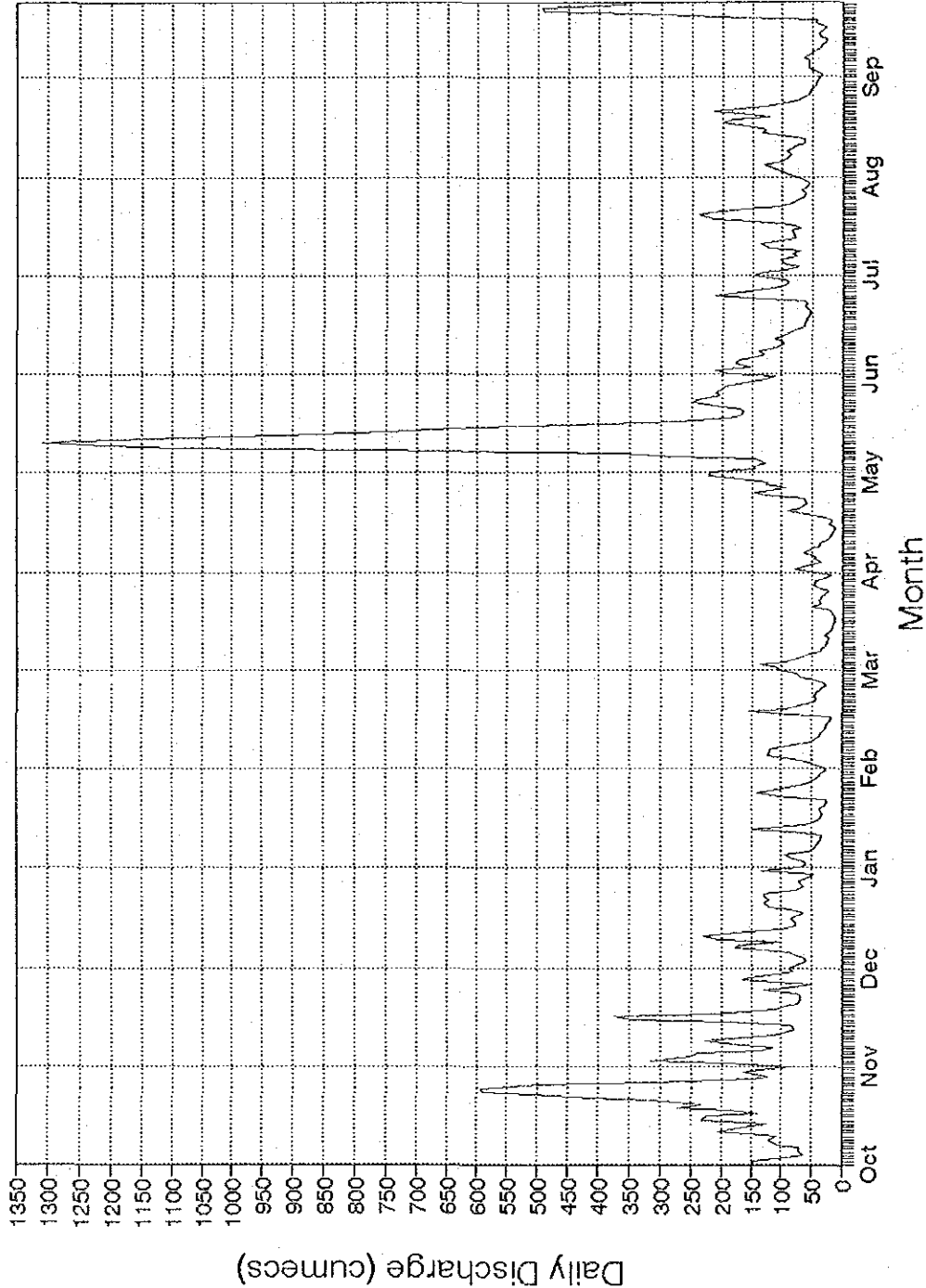
DAILY FLOWS AT ELLAGAWA
IN HYDROLOGICAL YEAR 1975-76



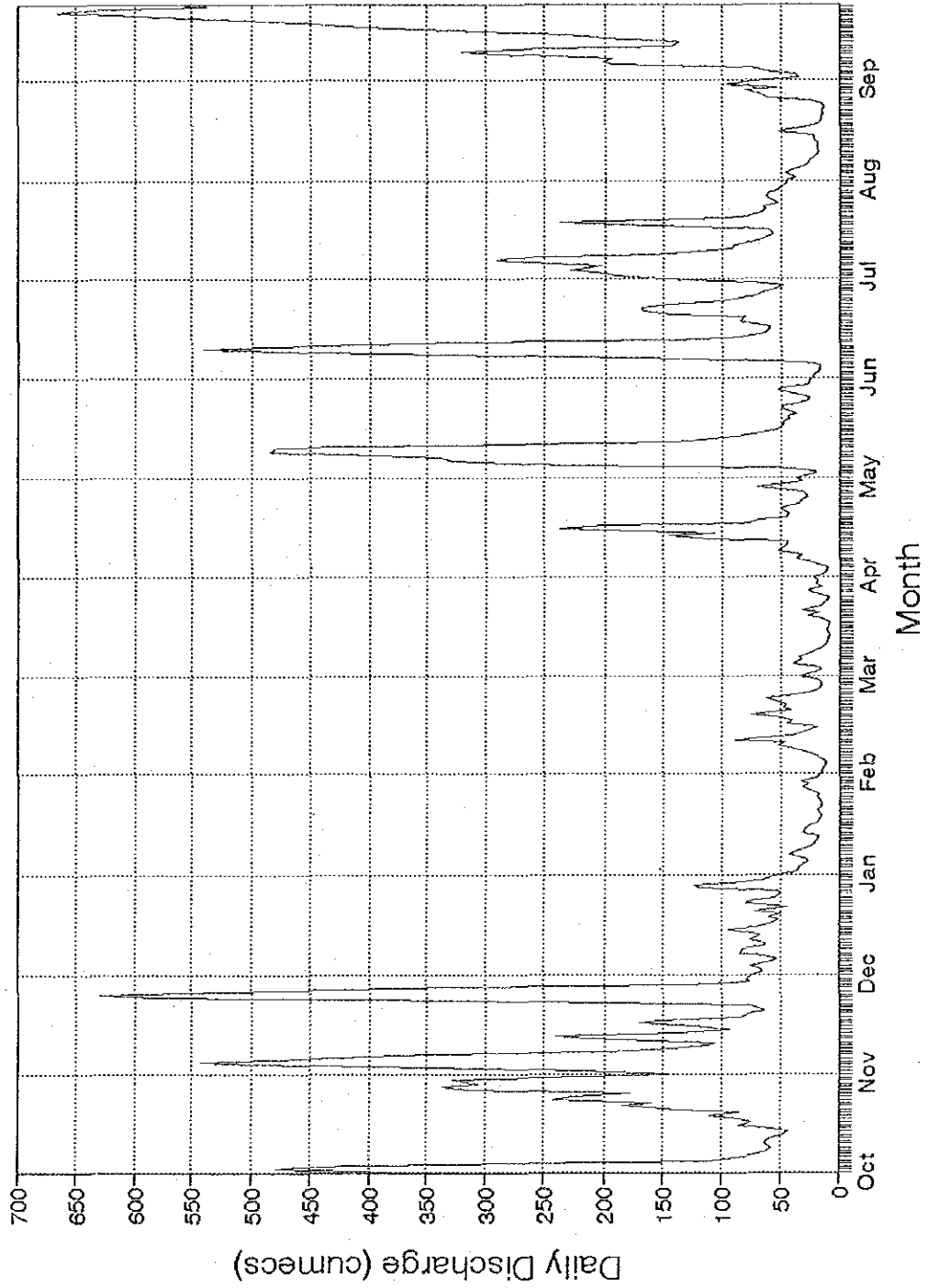
DAILY FLOWS AT ELLAGAWA
IN HYDROLOGICAL YEAR 1976-77



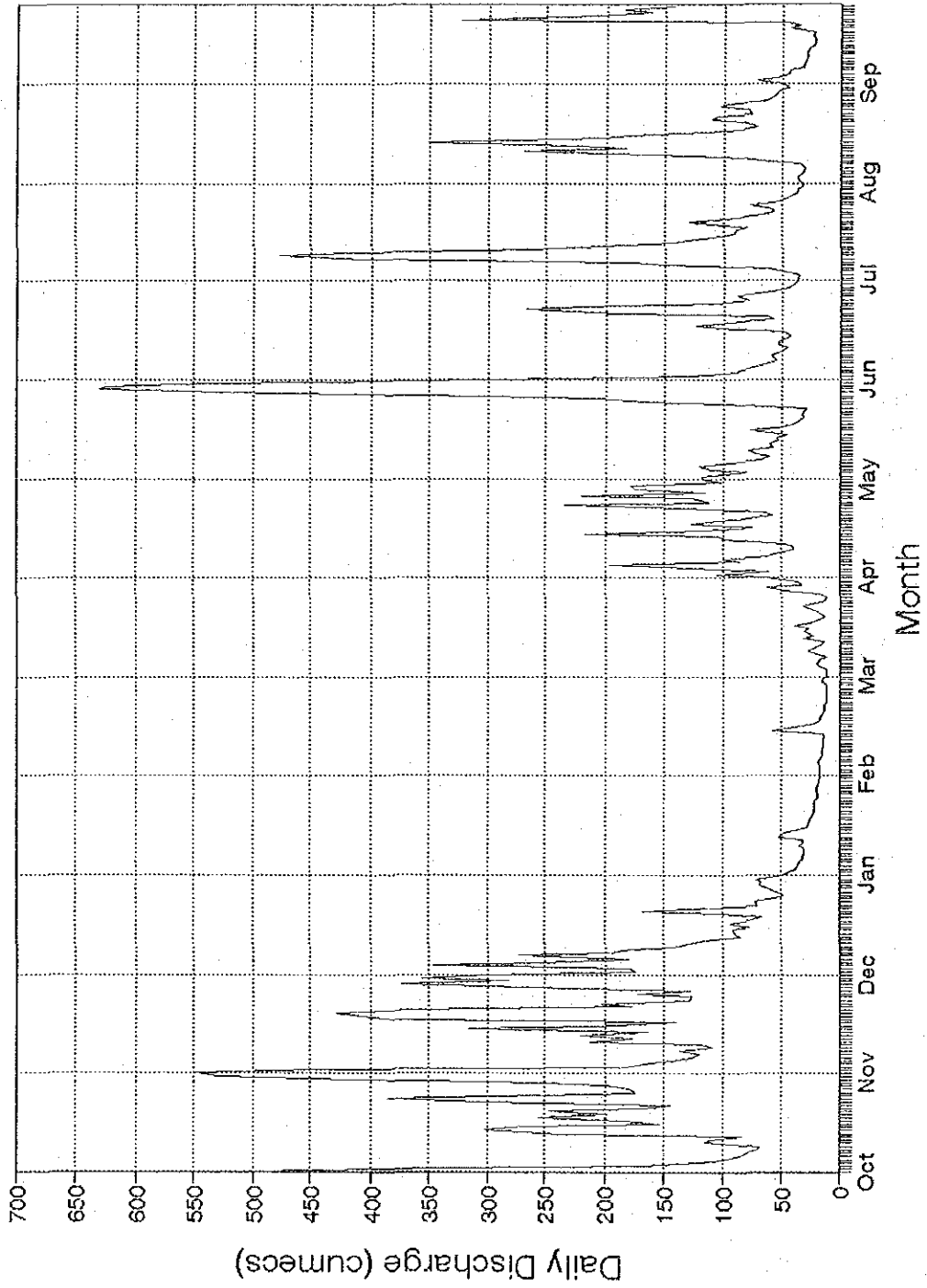
DAILY FLOWS AT ELLAGAWA
IN HYDROLOGICAL YEAR 1977-78



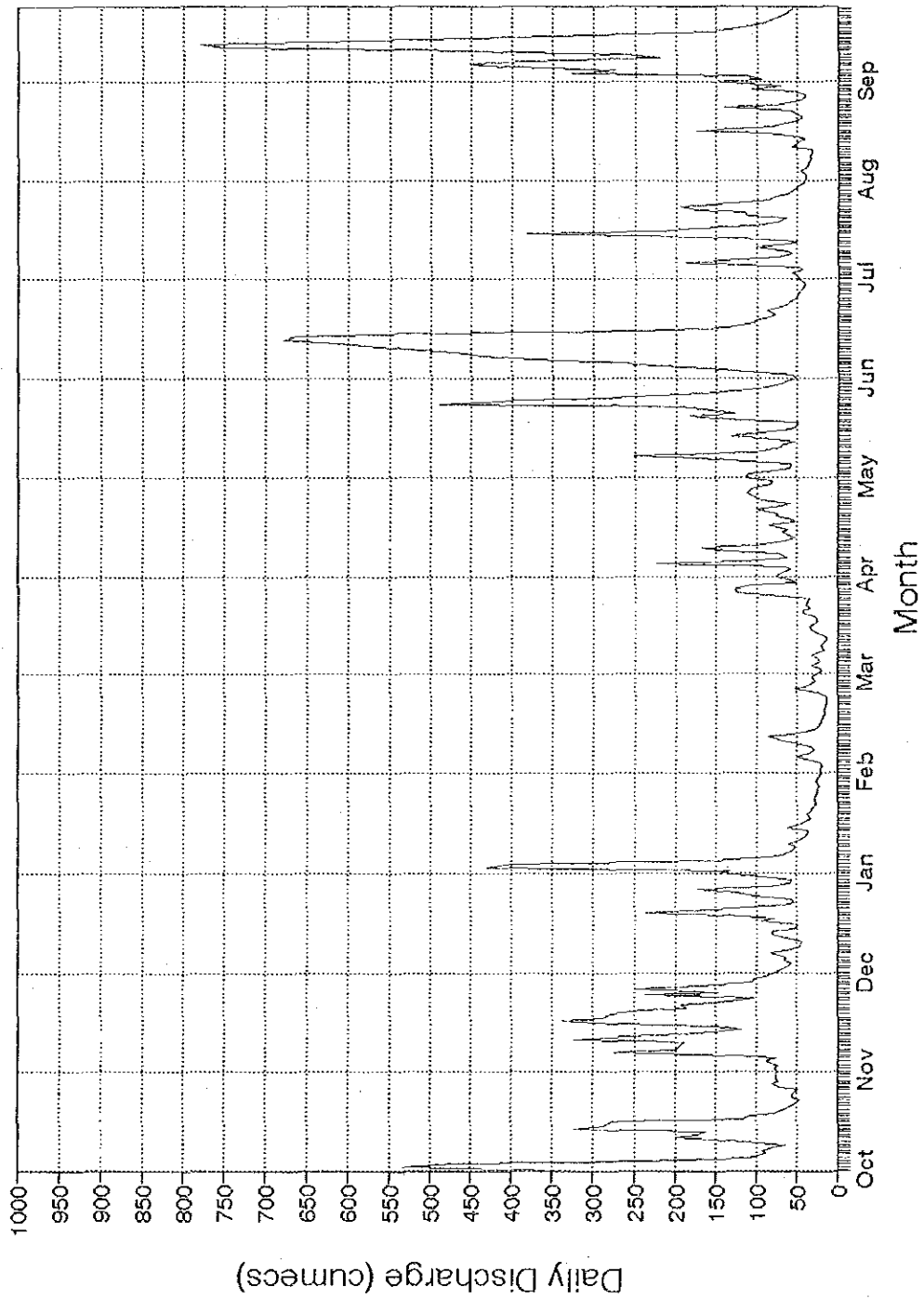
DAILY FLOWS AT ELLAGAWA
IN HYDROLOGICAL YEAR 1978-79



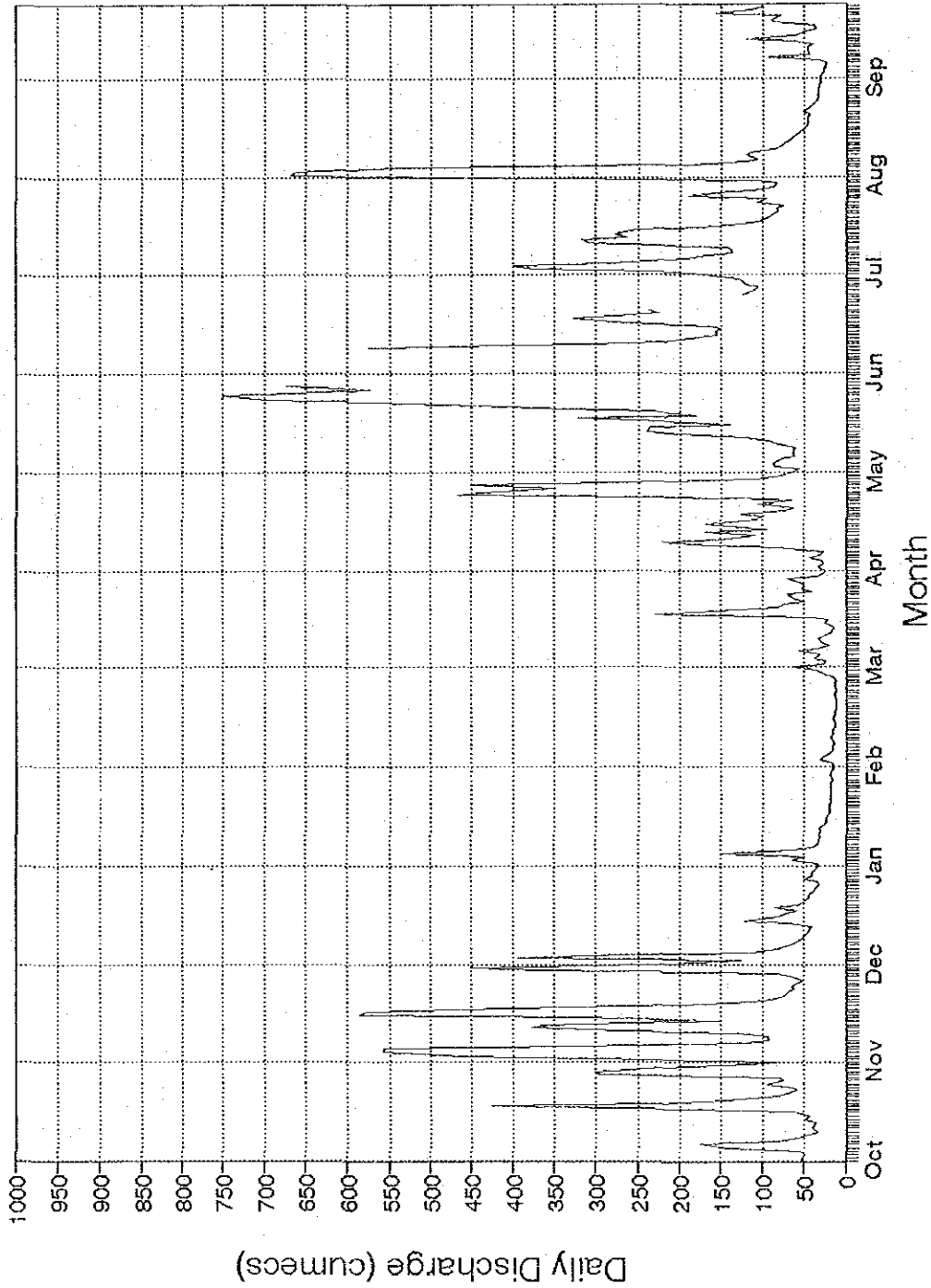
DAILY FLOWS AT ELLAGAWA
IN HYDROLOGICAL YEAR 1979-80



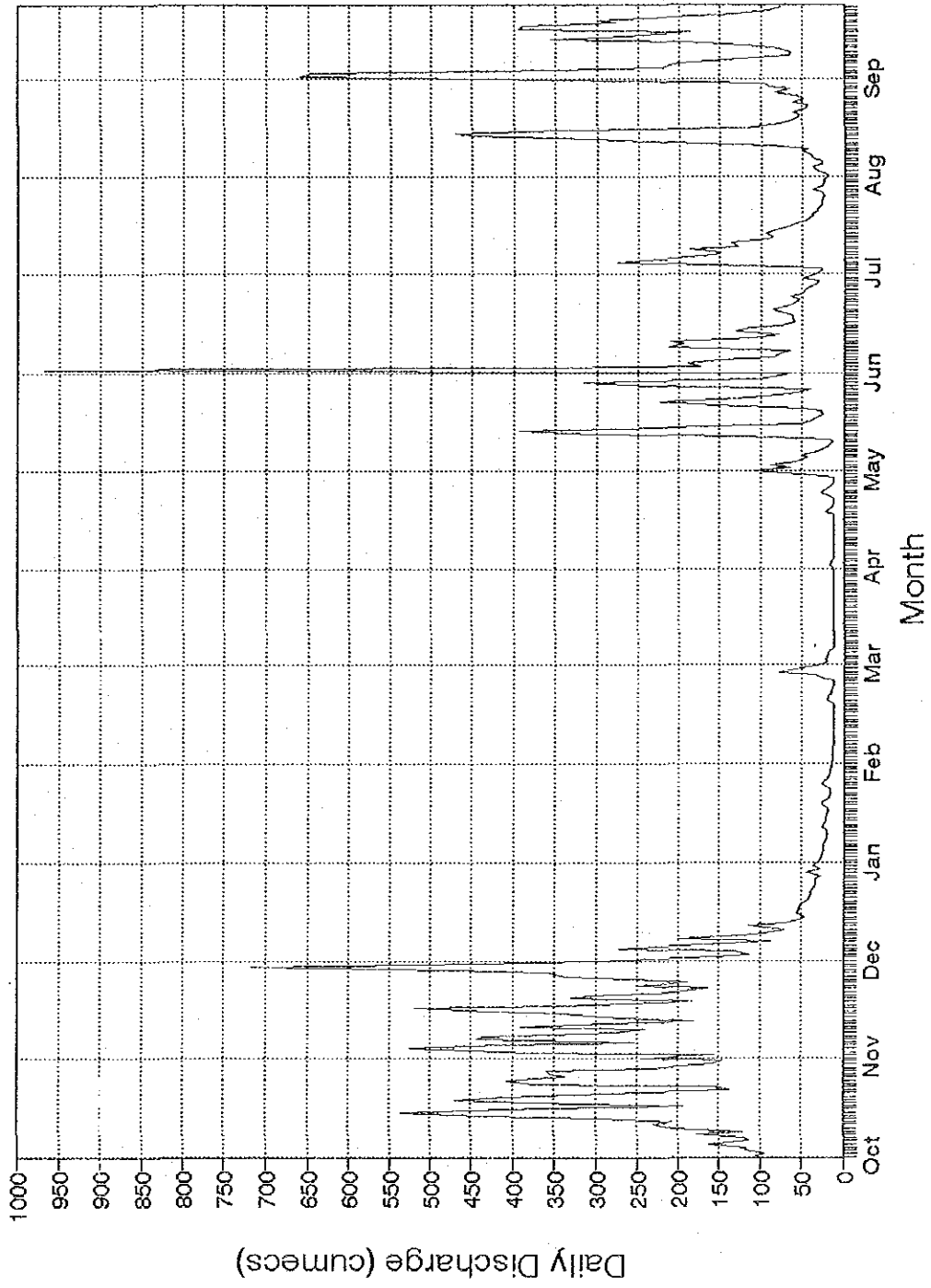
DAILY FLOWS AT ELLAGAWA
IN HYDROLOGICAL YEAR 1980-81



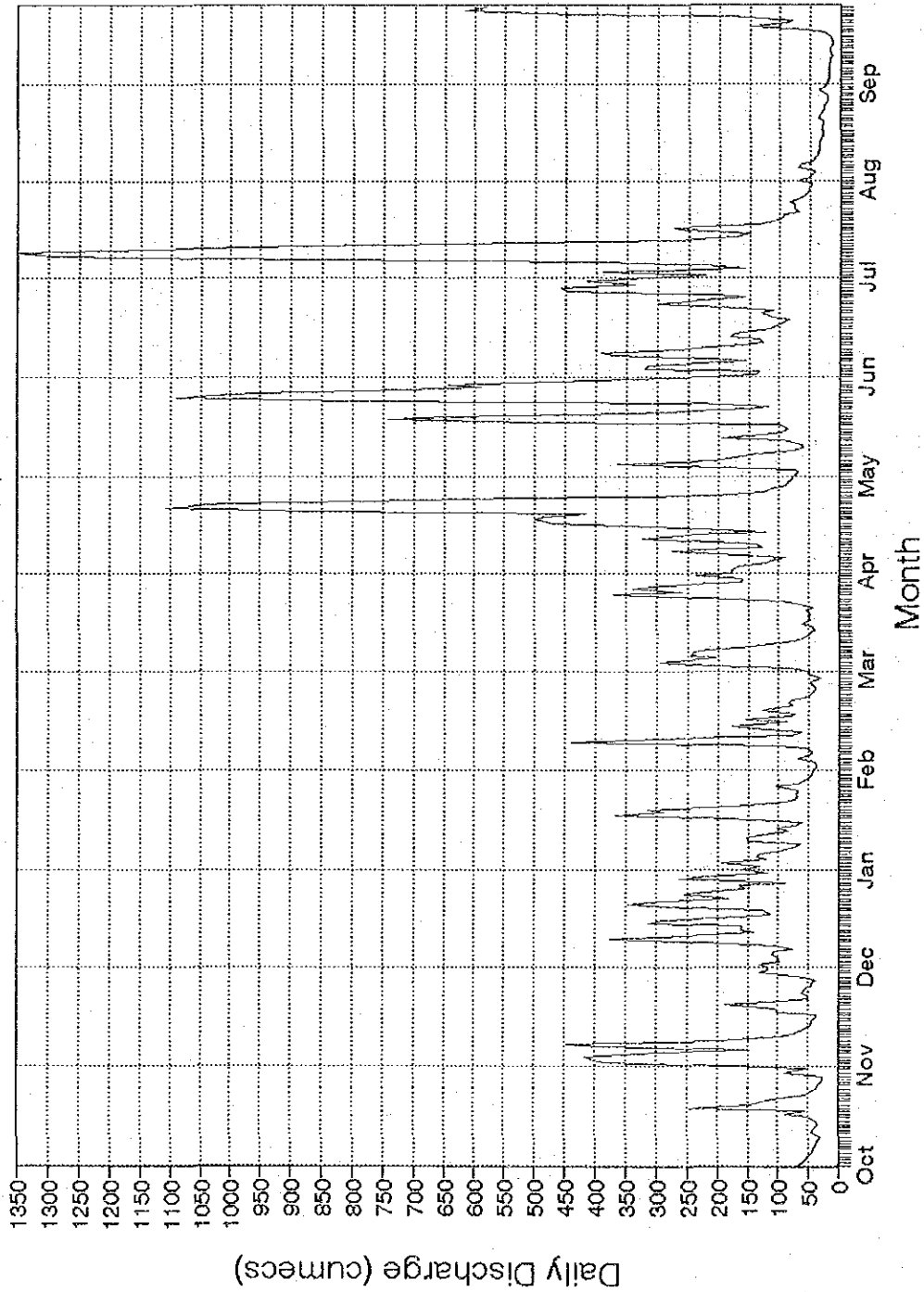
DAILY FLOWS AT ELLAGAWA
IN HYDROLOGICAL YEAR 1981-82



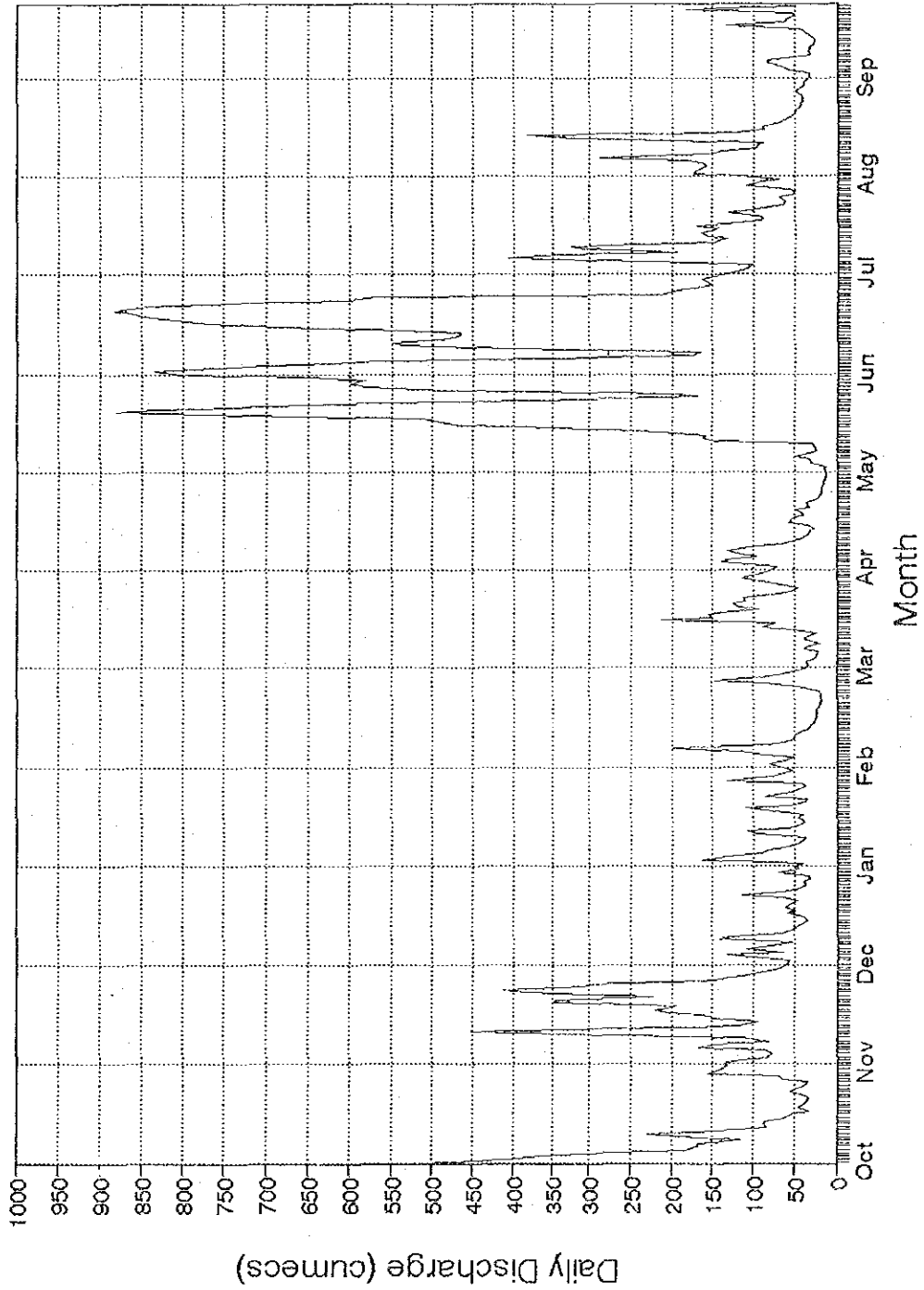
DAILY FLOWS AT ELLAGAWA
IN HYDROLOGICAL YEAR 1982-83



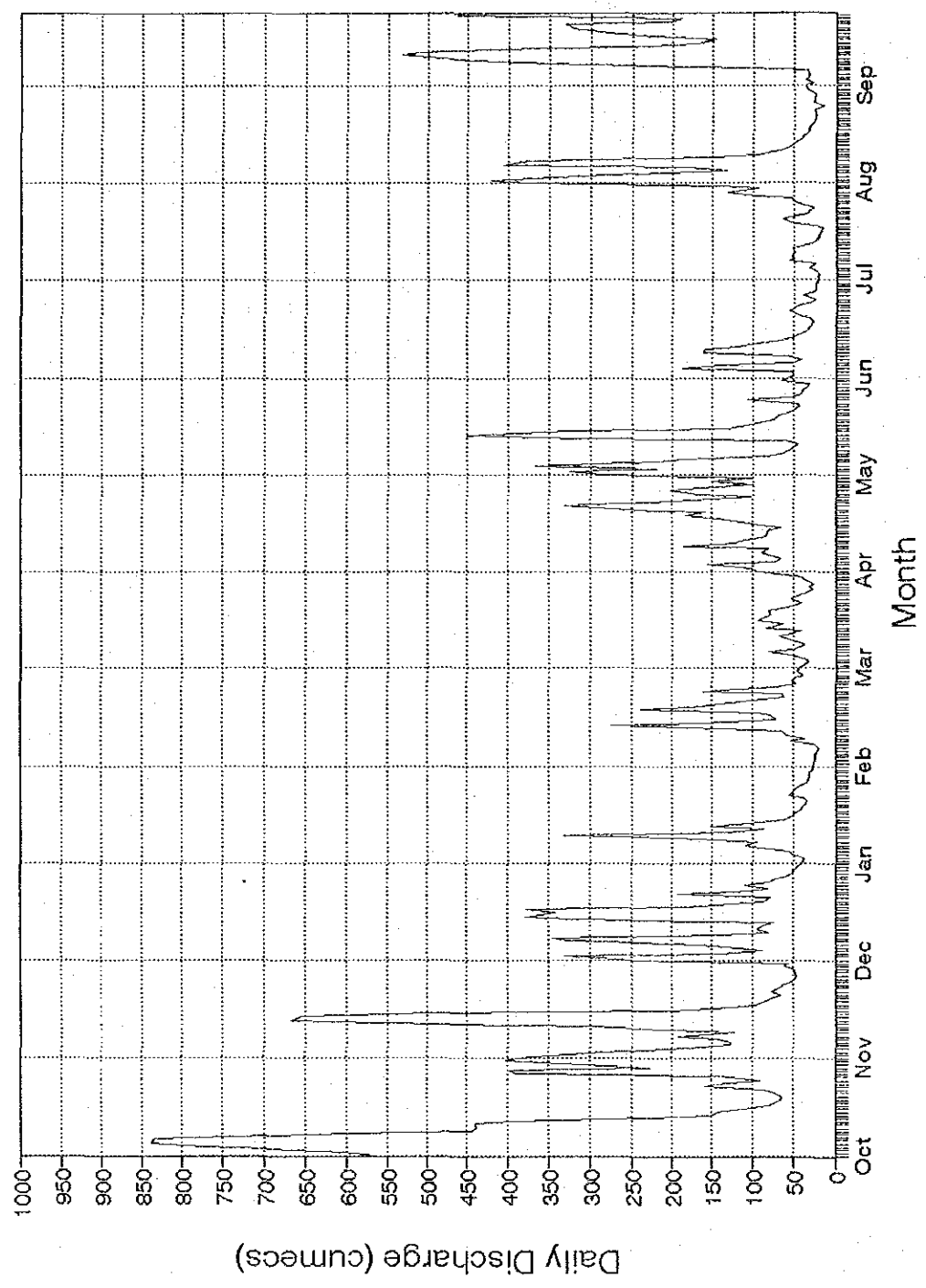
DAILY FLOWS AT ELLAGAWA
IN HYDROLOGICAL YEAR 1983-84



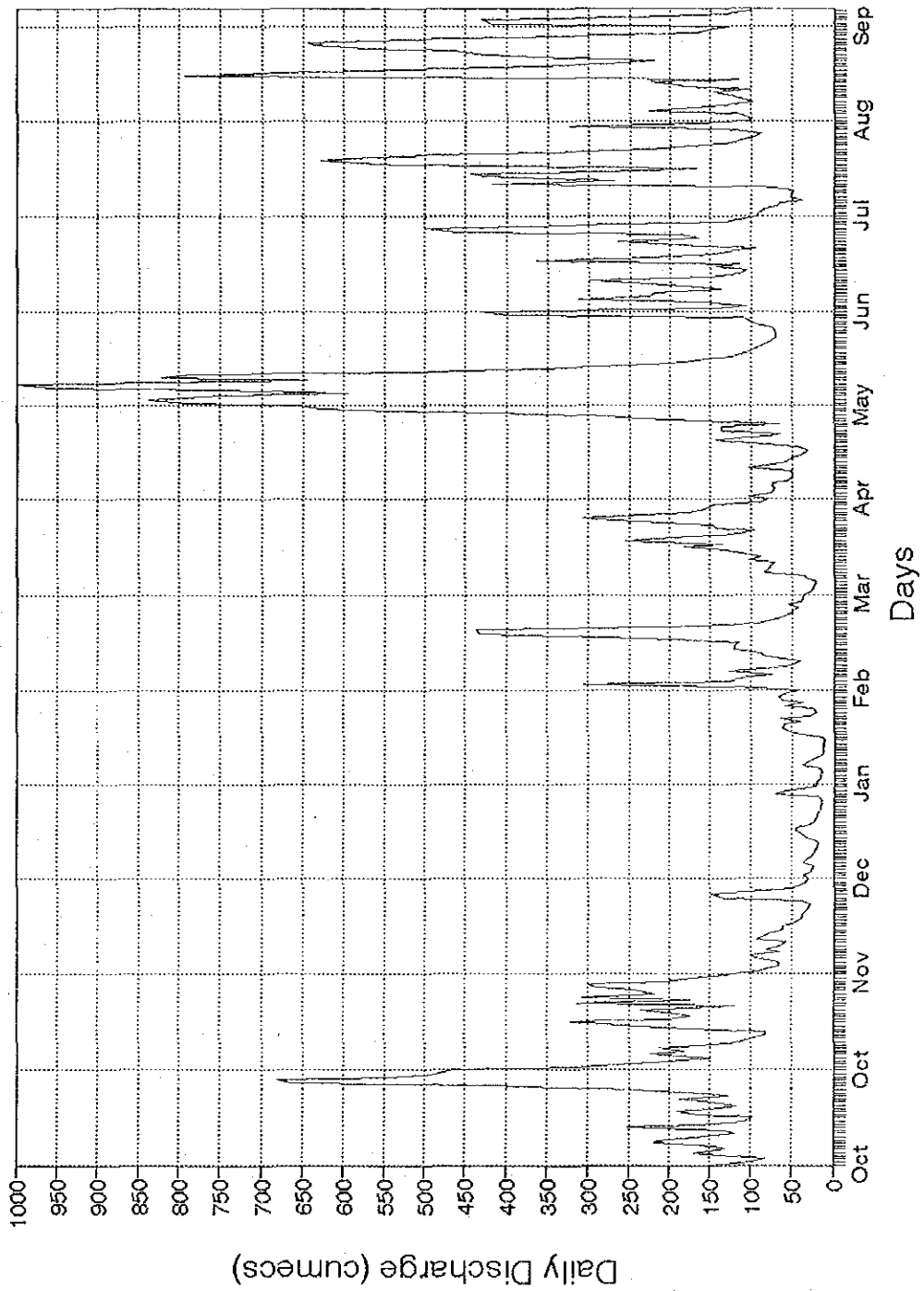
DAILY FLOWS AT ELLAGAWA
IN HYDROLOGICAL YEAR 1984-85



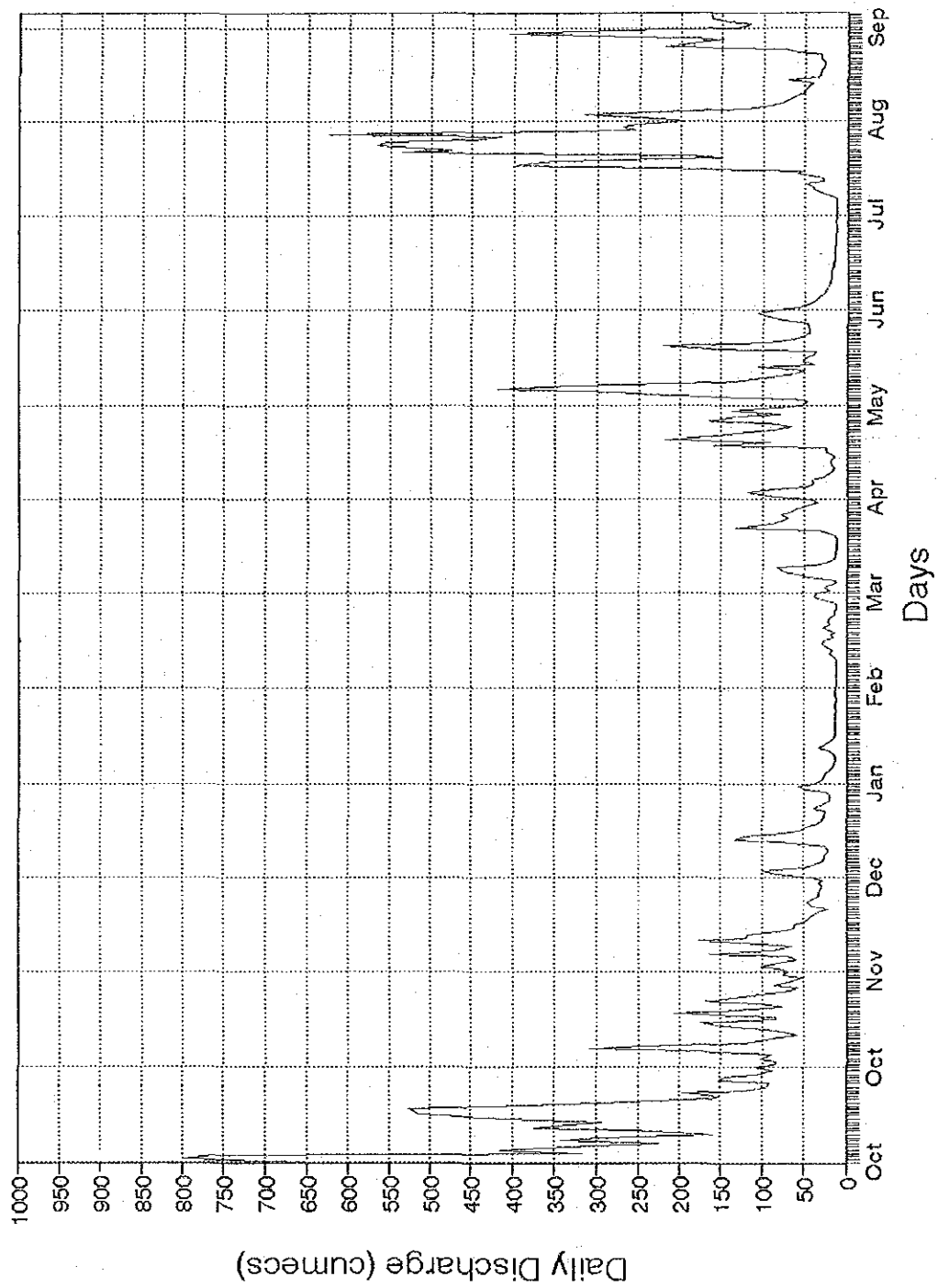
DAILY FLOWS AT ELLAGAWA
IN HYDROLOGICAL YEAR 1985-86



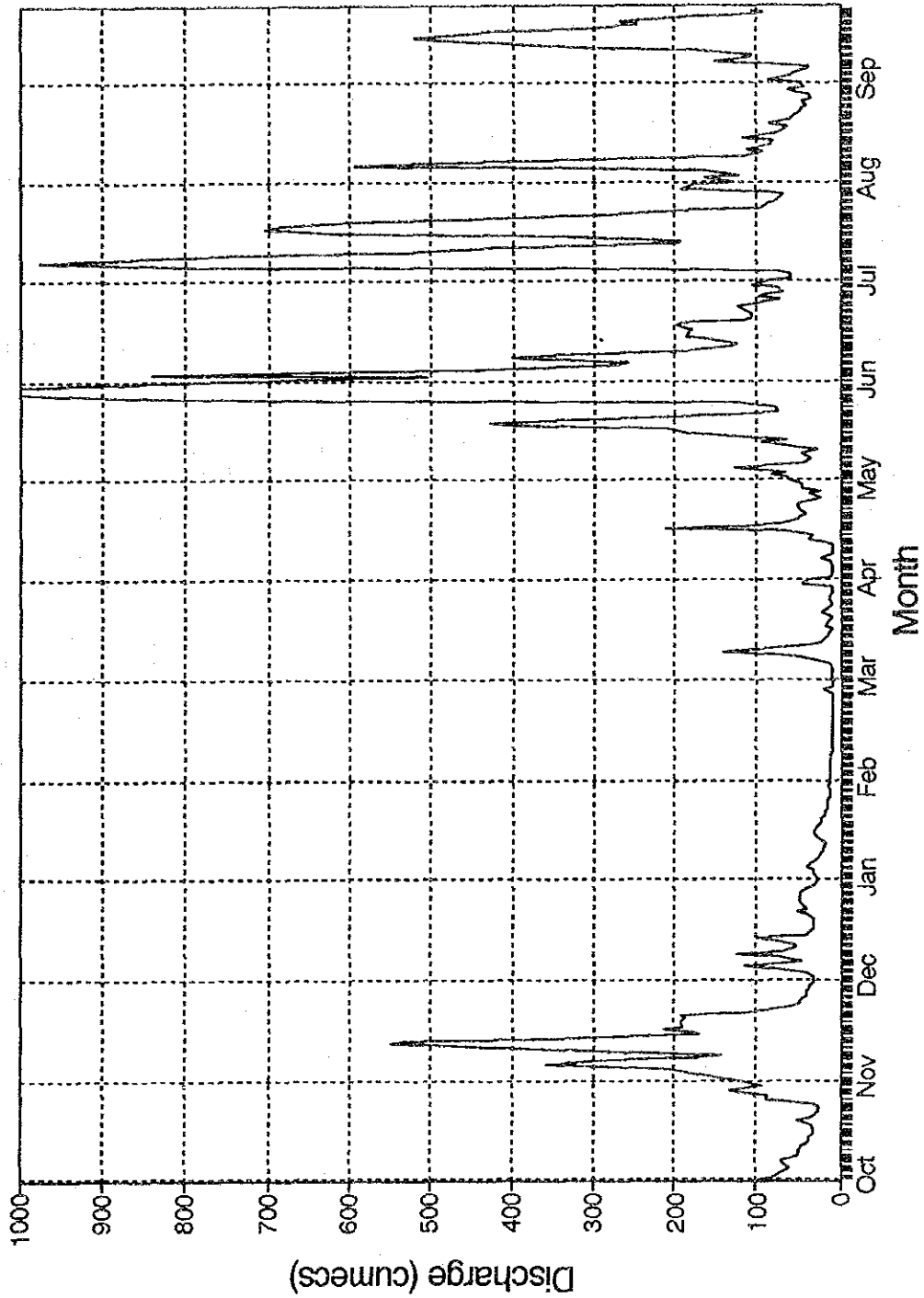
DAILY FLOWS AT ELLAGAWA
IN HYDROLOGICAL YEAR 1987-88



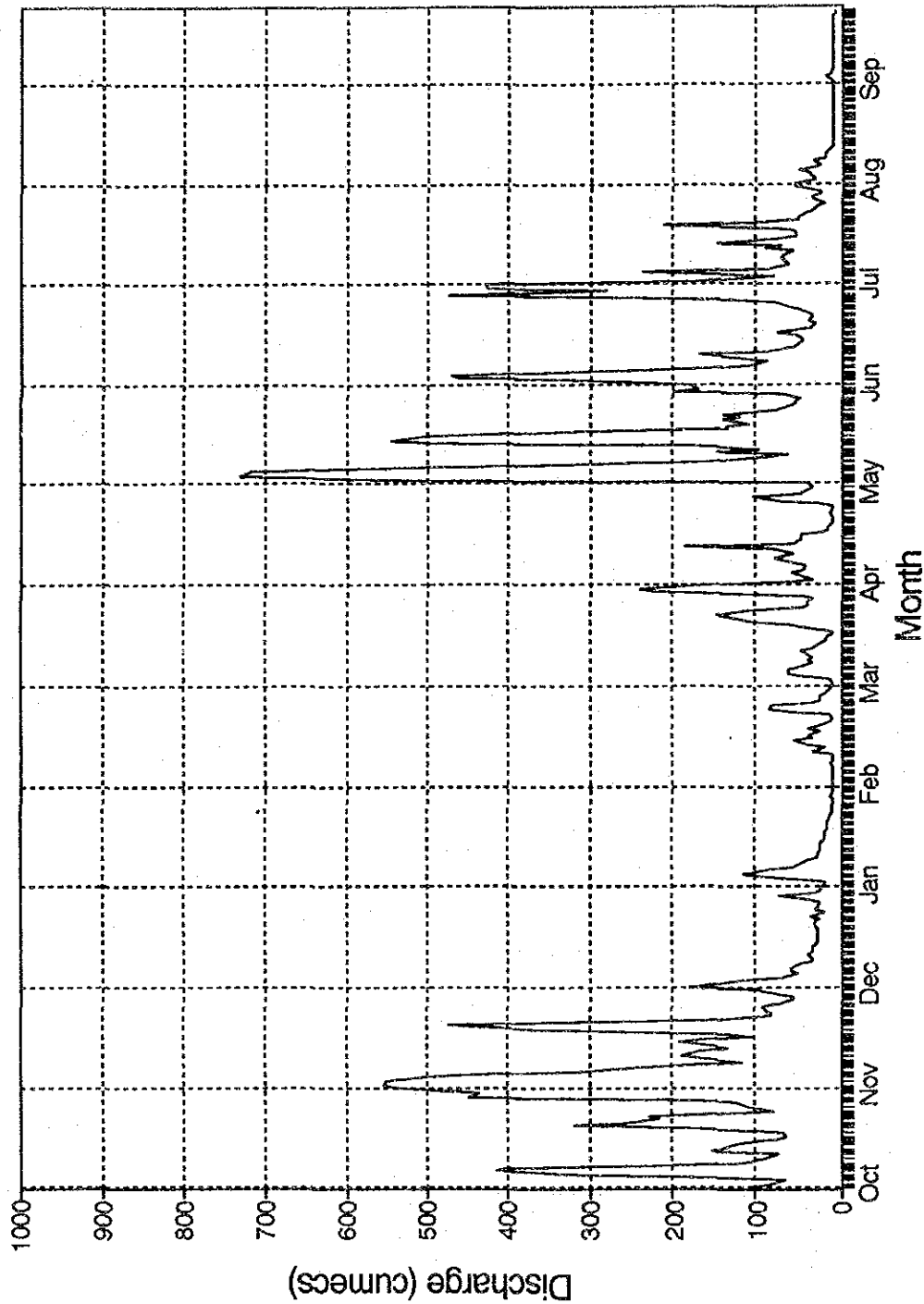
DAILY FLOWS AT ELLAGAWA
IN HYDROLOGICAL YEAR 1986-87



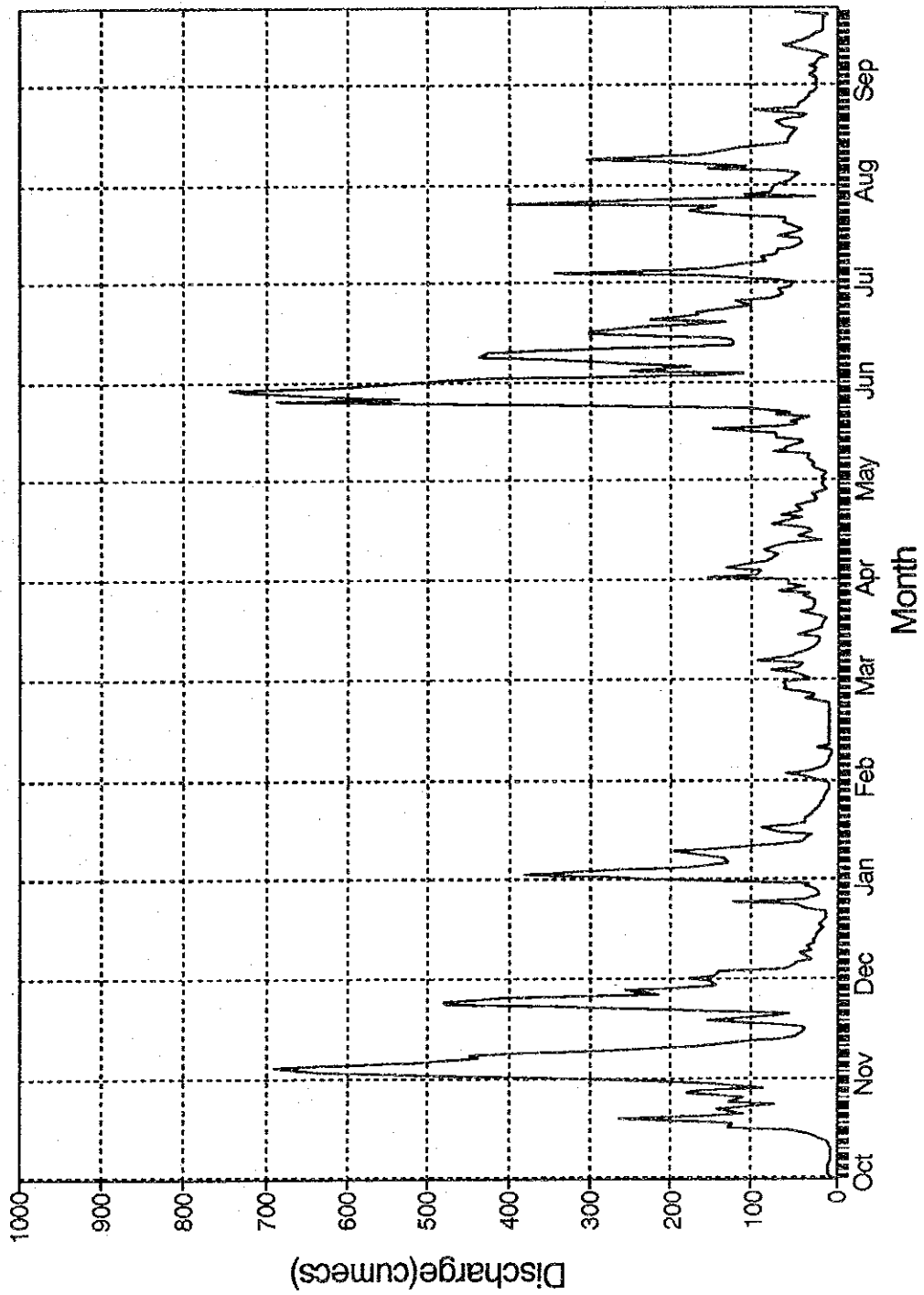
DAILY FLOWS AT ELLAGAWA
in Hydrological Year 1988/89



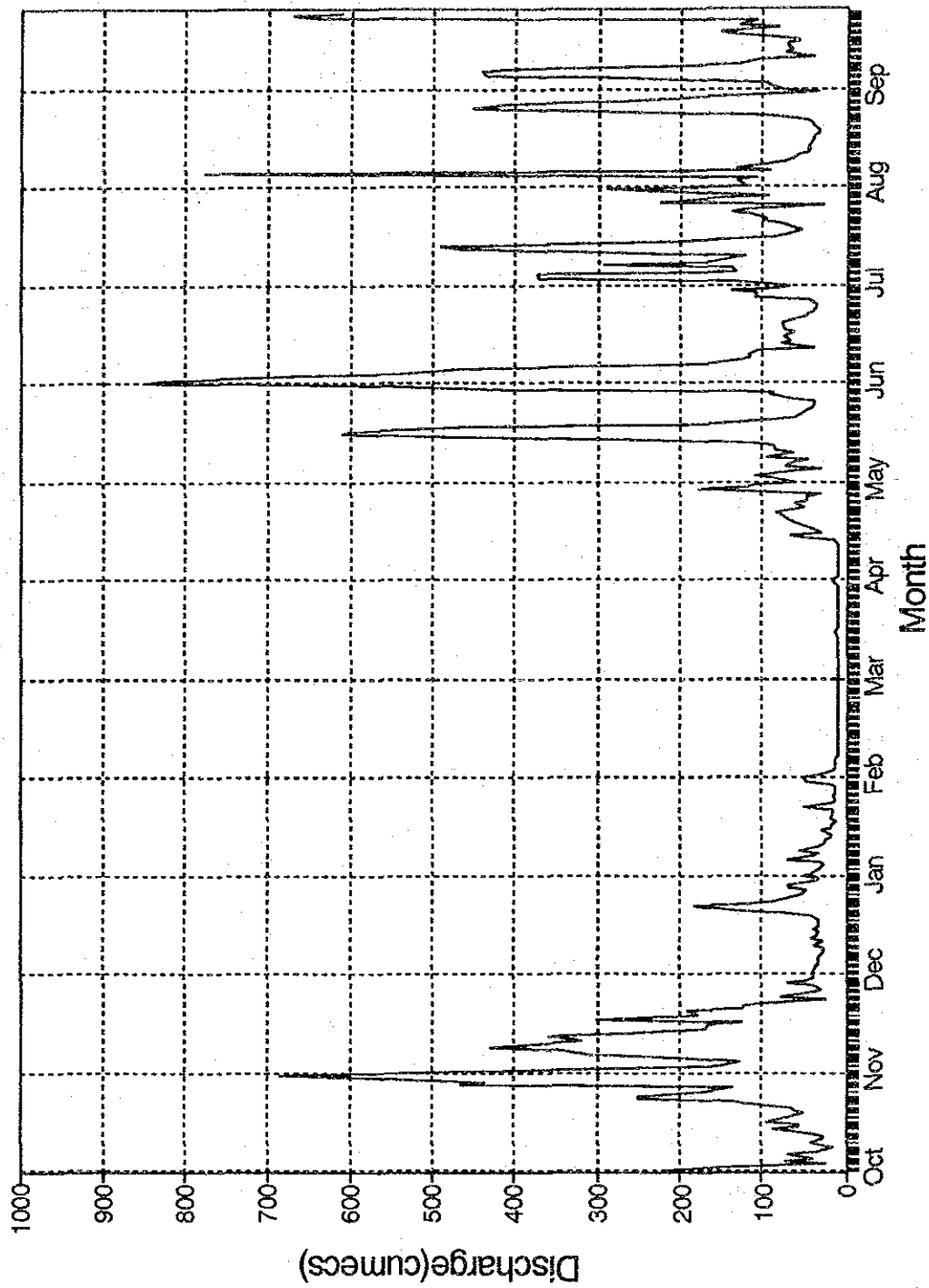
DAILY FLOWS AT ELLAGAWA
in Hydrological Year 1989/90



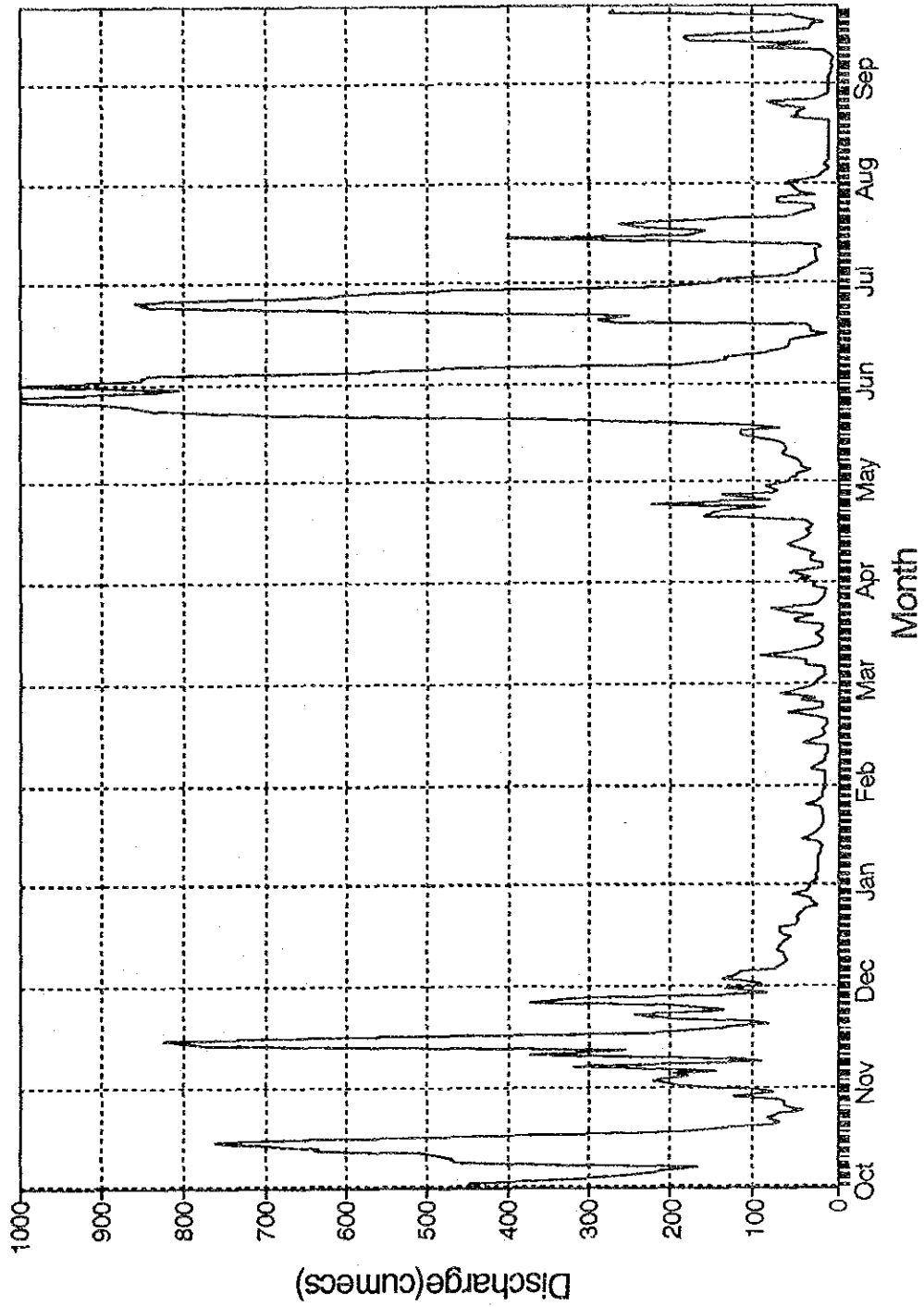
DAILY FLOWS AT ELLAGAWA
in Hydrological Year 1990/91



DAILY FLOWS AT ELLAGWA
in Hydrological year 1991/92



DAILY FLOWS AT ELLAGAWA
in Hydrological year 1992/93



MEAN MONTHLY RAINFALL

COLOMBO

unit:mm

Year	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Ann.Tot
1982	4.1	0.2	311.8	108.8	323.7	195.0	160.9	123.6	104.9	186.6	434.9	51.0	2005.5
1983		43.0	60.3	83.0	336.5	118.6	163.1	94.0	291.5	94.8	241.7	223.6	1750.1
1984	211.5	179.6	162.5	254.0	491.0	176.8	127.8	4.9	339.3	161.3	360.2	24.2	2493.1
1985	83.5	160.8	116.1	76.3	253.1	316.9	19.6	111.2	343.4	275.7	244.9	230.9	2232.4
1986	144.9	78.4	81.4	216.8	230.9	63.8	10.5	75.2	128.4	163.0	58.9	203.4	1456.6
1987	98.4	0.0	73.2	179.3	198.4	116.3	12.0	404.8	508.9	506.5	217.4	136.0	2451.2
1988	3.0	63.6	206.4	185.0	146.2	325.7	101.5	122.4	374.3	117.9	266.9	96.0	2008.9
1989	35.8	6.0	146.3	332.9	399.1	217.2	138.2	49.1	174.5	450.4	284.7	31.5	2265.7
1990	182.7	36.9	184.0	366.9	324.3	184.1	206.3	17.9	29.6	374.1	255.8	178.8	2341.4
1991	78.8	55.2	146.4	142.1	317.4	309.9	121.0	88.8	112.4	353.1	292.7	79.1	2096.9
1992	19.8	3.5	0.8	151.5	488.7	602.3	218.1	70.9	323.0	216.7	401.5	78.4	2575.2
Mean	86.3	57.0	135.4	190.6	319.0	238.8	116.3	105.8	248.2	263.6	278.1	121.2	2152.5

RATNAPURA

Year	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Ann.Tot
1982	55.5	24.4	318.1	455.4	545.3	892.5	307.2	267.2	237.5	628.2	638.8	129.4	4499.5
1983	93.1	78.8	150.1	128.0	495.1	367.6	276.1	284.4	450.5	146.0	344.6	537.8	3352.1
1984	274.7	407.1	356.7	529.2	564.0	343.5	515.9	48.2	312.1	255.4	343.7	264.5	4215.0
1985	214.2	174.1	273.7	133.2	504.2	746.2	249.8	183.4	252.9	646.1	251.7	346.4	3975.9
1986	159.6	319.0	131.3	358.7	287.5	201.8	121.3	270.3	700.2	435.0	277.8	284.5	3547.0
1987	138.7	11.2	157.9	239.2	302.7	233.1	18.8	660.4	320.0	475.3	381.4	72.6	3011.3
1988	94.7	324.4	228.2	262.3	13.3	662.4	331.7	557.6	694.3	224.5	378.8	139.3	3911.5
1989	47.5	7.8	123.3	257.1	405.9	632.2	610.9	282.7	448.5	500.4	320.0	97.4	3733.7
1990	74.8	134.1	251.2	352.1	493.6	298.8	327.4	73.6	107.2	446.5	511.4	209.4	3280.1
1991	257.4	106.5	175.5	325.1	412.6	450.2	282.7	233.9	175.9	488.7	259.8	152.9	3321.2
1992	83.4	41.0	44.8	335.4	489.0	408.3	426.0	265.3	434.0	400.2	513.5	95.3	3536.2
Mean	141.0	158.7	216.6	304.0	402.4	482.8	304.2	286.2	369.9	424.6	370.8	223.4	3684.7

Source: Department of Meteorology

Daily Rainfall at Clyde Estate

1983												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	0.0	0.0	4.6	0.0	4.3	0.0	0.0	8.1	0.0	36.1	0.0
2	0.0	0.0	0.0	0.0	2.0	2.0	0.0	5.6	31.0	0.0	27.4	0.0
3	0.0	0.0	0.0	0.0	0.0	9.4	0.0	7.6	46.5	2.0	48.5	0.0
4	0.0	0.0	0.0	0.0	13.7	35.6	4.6	4.6	34.0	1.8	10.7	4.3
5	0.0	0.0	0.0	0.0	3.8	7.9	0.0	8.4	34.0	4.1	2.8	0.0
6	0.0	0.0	0.0	0.0	2.0	11.2	2.5	0.0	24.1	0.0	50.6	0.0
7	0.0	0.0	0.0	0.0	0.0	10.7	7.6	8.1	36.3	0.0	0.0	0.0
8	0.0	0.0	0.0	1.5	5.1	7.6	15.2	9.7	0.0	0.0	0.0	1.0
9	0.0	0.0	0.0	0.0	23.6	7.1	38.1	2.5	1.8	0.0	0.0	10.9
10	0.0	0.0	0.0	0.0	17.8	7.6	45.8	2.9	6.1	0.0	0.0	3.6
11	20.1	0.0	0.0	0.0	0.0	3.1	17.8	11.7	25.6	0.0	0.0	0.0
12	0.0	0.0	0.0	0.0	45.7	3.8	5.6	11.4	15.5	2.5	0.0	0.0
13	0.0	0.0	0.0	0.0	0.0	30.5	7.6	25.9	0.0	38.1	0.0	0.0
14	0.0	0.0	0.0	0.0	0.0	7.4	0.0	15.5	0.0	5.1	0.0	2.8
15	0.0	0.0	0.0	0.0	0.0	30.5	0.0	0.0	19.1	0.0	0.0	123.2
16	0.0	0.0	0.0	0.0	4.8	0.0	0.0	21.6	0.0	45.2	0.0	49.5
17	0.0	0.0	0.0	0.0	144.8	0.0	2.0	15.2	1.5	0.0	2.3	10.7
18	0.0	0.0	0.0	0.0	0.0	15.2	0.0	1.8	23.4	22.9	0.0	9.7
19	0.0	0.0	0.0	0.0	0.0	2.3	19.1	0.0	48.0	0.0	0.0	8.4
20	27.2	0.0	0.0	0.0	0.0	0.0	0.0	1.8	45.7	0.0	36.1	5.6
21	0.0	0.0	0.0	0.0	0.0	1.0	0.0	14.7	5.6	0.0	0.0	16.8
22	0.0	0.0	0.0	41.4	22.9	9.9	19.8	0.0	24.9	0.0	0.0	1.8
23	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0	32.5	0.0	0.0	0.0
24	0.0	1.5	0.0	0.0	17.8	4.8	0.0	1.5	7.9	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	22.9	0.0	0.0	0.0	15.2	0.0	0.0	11.4
26	0.0	0.0	0.0	0.0	19.1	0.0	0.0	0.0	11.4	0.0	0.0	0.0
27	0.0	0.0	0.0	5.1	10.7	0.5	0.0	6.4	5.8	0.0	0.0	0.0
28	0.0	0.0	0.0	14.0	15.8	0.0	0.0	0.0	0.0	0.0	3.8	0.0
29	0.0		0.0	36.8	12.7	2.3	0.0	0.0	0.0	38.1	69.1	5.1
30	0.0		0.0	0.0	2.8	1.0	0.0	0.0	0.8	0.0	4.6	0.0
31	0.0		0.0		2.5		0.0	0.0		12.2		2.8
Total	47.3	1.5	0.0	103.4	390.5	218.0	185.7	176.9	504.8	172.0	292.0	267.6

Daily Rainfall at Clyde Estate

1984												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	12.2	0.0	0.0	23.4	0.0	23.9	22.9	0.0	0.0			0.0
2	18.5	0.0	16.3	40.4	0.0	0.0	20.8	0.0	0.0			0.0
3	9.4	0.0	0.0	0.0	26.7	17.3	21.3	0.0	0.0			0.0
4	3.3	0.0	0.0	0.0	43.2	0.0	11.4	0.0	0.0			24.9
5	5.1	8.4	0.0	0.0	0.0	0.0	3.8	0.0	0.0			0.0
6	15.2	0.0	7.6	0.0	11.4	0.0	15.2	0.0	0.0			1.8
7	0.0	0.0	3.6	0.0	27.9	14.2	0.0	0.0	0.0			0.0
8	0.0	6.6	2.8	0.0	33.5	8.7	4.6	0.0	0.0			0.0
9	0.0	3.1	0.0	0.0	14.7	0.0	0.0	0.0	0.0			0.0
10	17.0	16.8	0.0	8.9	85.3	14.7	29.5	0.0	0.0			0.0
11	8.1	1.0	13.2	21.6	31.5	29.2	61.0	0.0	0.0			0.0
12	0.5	1.5	0.0	47.8	14.2	0.0	31.8	0.0	0.0			0.0
13	0.0	1.8	0.0	11.4	0.0	22.9	15.2	0.0	0.0			0.0
14	0.0	58.4	0.0	0.0	0.0	0.0	15.2	0.0	0.0			0.0
15	0.0	0.0	0.0	114.3	89.7	0.0	22.9	0.0	0.0			0.0
16	0.0	0.0	0.0	0.0	41.9	8.9	5.1	0.0	0.0			0.0
17	5.1	2.0	0.0	71.1	0.0	17.3	0.0	0.0	0.0			0.0
18	13.5	0.0	0.0	8.1	3.8	37.5	1.0	0.0	0.0			2.5
19	0.0	0.5	0.0	58.9	18.8	3.3	7.4	0.0	0.0			0.0
20	0.0	58.7	0.0	14.7	9.1	13.7	3.3	0.0	0.0			0.0
21	0.0	1.5	24.1	29.0	17.5	4.6	0.0	0.0	3.8			0.0
22	0.0	5.3	0.0	12.2	88.1	0.0	0.0	0.0	24.4			0.0
23	0.0	0.0	0.0	21.3	5.8	0.0	2.3	0.0	36.3			0.0
24	0.0	9.7	1.0	52.3	0.0	5.3	2.3	0.0	61.0			0.0
25	2.3	0.0	23.4	32.3	0.0	10.9	3.3	0.0	63.5			0.0
26	0.0	0.0	0.0	0.0	4.6	32.5	0.0	10.2	88.1			0.0
27	25.9	0.0	11.9	13.7	16.0	19.1	1.5	0.0	22.9			0.0
28	1.8	61.7	9.4	0.0	69.3	19.1	0.0	0.0	1.0			0.0
29	0.0	73.4	6.6	0.0	6.6	7.4	0.0	0.0	22.4			1.0
30	0.0		18.0	0.0	7.1	25.4	2.8	0.0	29.0			0.0
31	0.0		9.4		16.0		0.0	0.0				11.2
Total	137.9	310.4	147.3	581.4	682.7	335.9	304.6	10.2	352.4			41.4

Daily Rainfall at Clyde Estate

1985												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	7.6	0.0	17.8	0.0	23.4	28.7	0.0	7.1	50.8	53.4	1.3
2	0.0	27.4	0.0	16.8	0.0	10.9	5.6	13.2	9.7	73.7	19.3	18.3
3	0.0	8.6	0.0	17.3	0.0	36.8	11.9	30.5	0.0	81.3	8.6	20.8
4	0.0	0.5	0.0	7.9	0.0	83.8	0.5	77.5	0.0	45.7	8.1	1.0
5	0.0	8.1	0.0	12.7	0.0	36.8	9.7	0.0	0.0	24.9	1.5	1.3
6	0.0	1.8	0.0	7.4	0.0	11.4	7.1	0.0	0.0	10.7	35.1	0.0
7	0.0	131.6	0.0	5.3	1.0	13.5	0.0	7.6	0.0	1.8	3.1	0.0
8	0.0	0.0	0.0	61.2	19.6	31.2	0.0	0.0	0.0	11.4	6.1	38.1
9	0.0	0.0	33.3	1.0	7.9	7.6	8.1	44.5	0.0	1.3	52.4	0.0
10	0.0	0.0	3.8	0.0	0.0	0.0	4.6	0.0	39.9	8.1	51.6	0.0
11	0.0	0.0	8.9	1.3	0.0	0.0	2.3	7.6	8.1	2.0	58.9	0.0
12	0.0	0.0	35.6	0.0	0.0	10.9	8.1	22.9	18.3	0.8	35.1	0.0
13	0.0	0.0	0.0	1.8	1.0	47.8	15.8	0.5	0.0	4.6	0.8	0.0
14	0.0	0.0	0.0	0.0	0.0	61.7	1.3	0.0	0.0	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	6.9	35.1	0.5	0.0	0.0	0.0	0.0	30.7
16	6.4	0.0	0.0	0.0	70.1	2.8	0.0	0.0	0.0	0.0	0.0	31.0
17	7.1	0.0	24.1	0.0	60.5	0.8	0.0	0.0	0.0	0.0	0.0	14.7
18	5.6	0.0	14.0	0.0	135.1	7.9	0.0	26.3	0.0	0.0	0.0	0.0
19	0.0	0.0	17.0	9.1	108.7	53.6	0.0	0.0	5.8	0.0	0.0	0.0
20	0.0	0.0	0.5	0.8	16.8	12.2	7.6	0.0	4.3	68.1	0.0	0.0
21	0.0	0.0	3.1	5.6	3.8	18.3	3.0	0.0	9.7	0.0	0.0	0.0
22	0.0	0.0	0.0	8.1	43.2	33.0	0.0	0.0	12.7	0.0	17.3	0.0
23	0.0	0.0	0.0	1.0	34.8	41.9	0.0	0.0	7.1	0.0	0.0	0.0
24	9.4	0.0	0.0	7.9	16.0	44.7	0.0	0.0	19.8	0.0	0.0	0.0
25	0.0	0.5	0.0	0.0	5.8	26.7	0.0	0.0	24.9	0.0	0.0	0.0
26	0.0	0.0	0.0	0.0	5.6	12.2	8.1	0.0	33.0	16.3	0.0	7.6
27	4.6	18.5	0.0	0.0	0.0	0.5	0.0	0.0	23.4	24.9	0.0	2.0
28	2.5	13.7	0.0	0.0	0.0	0.0	8.6	0.0	50.3	0.5	0.0	0.0
29	21.3		17.0	0.0	10.2	1.0	0.0	0.0	67.8	0.8	0.0	0.0
30	8.1		0.0	0.0	12.2	1.3	0.0	0.0	14.7	1.3	0.0	0.0
31	9.1		0.0		5.8		0.0	0.0		1.0		0.0
Total	74.1	218.3	157.3	183.0	565.0	667.8	131.5	230.6	356.6	430.0	357.3	166.8

Daily Rainfall at Clyde Estate

1986												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	0.0	0.0	0.0	41.5	0.0	0.0	1.0	14.0	8.1	16.5	7.6
2	0.0	0.0	18.3	0.0	38.1	1.3	0.0	5.3	0.5	1.3	14.7	15.2
3	0.0	0.0	15.2	0.0	54.4	0.5	0.0	1.3	1.0	2.5	11.2	0.8
4	0.0	0.0	10.9	0.0	22.9	20.3	0.0	0.0	0.0	4.1	14.0	0.0
5	8.1	0.0	0.0	1.0	17.8	25.4	0.0	0.0	0.0	1.5	1.8	10.2
6	11.7	0.0	0.0	11.7	2.0	40.6	0.0	47.5	1.8	1.8	1.3	0.5
7	8.4	0.0	0.0	0.0	87.3	31.2	0.0	83.8	0.0	5.1	0.5	1.0
8	7.6	0.0	47.2	0.0	17.8	26.2	0.0	42.4	0.5	1.0	0.0	1.3
9	8.9	0.0	3.3	0.0	23.4	0.0	0.0	25.4	0.0	0.5	0.0	12.7
10	5.8	73.2	0.0	0.0	0.0	0.0	0.0	40.1	0.0	13.7	0.0	1.8
11	0.5	10.7	0.0	0.0	0.0	1.0	0.0	18.3	0.0	2.5	3.3	0.3
12	0.0	4.6	0.0	0.0	0.0	14.5	0.5	1.0	0.0	1.0	10.2	0.0
13	0.0	0.0	0.0	1.5	0.0	22.9	1.0	0.0	5.1	30.2	1.8	0.5
14	0.0	0.0	1.3	11.2	0.0	23.4	23.1	0.0	15.8	0.8	0.0	0.0
15	0.0	0.0	0.5	27.9	0.0	1.3	0.0	0.0	16.8	10.2	0.0	0.8
16	0.0	0.0	1.5	5.1	17.3	15.2	0.0	0.0	18.3	1.3	0.0	0.0
17	0.0	0.0	1.0	3.1	12.7	0.0	0.0	0.0	12.2	12.2	0.0	0.5
18	0.0	0.0	0.0	22.9	10.4	0.0	0.0	0.0	11.7	7.6	0.0	0.0
19	0.0	0.0	0.0	12.7	7.6	0.0	0.0	0.0	1.3	0.8	14.0	2.0
20	0.0	0.0	0.0	7.6	11.2	0.0	0.0	0.0	0.8	0.0	45.8	7.6
21	0.0	0.0	3.1	1.5	1.5	0.0	0.0	0.0	10.4	0.0	4.1	2.5
22	0.0	0.0	2.0	0.5	10.2	1.5	0.0	0.0	2.0	0.0	0.0	0.0
23	0.0	0.0	0.0	0.0	1.0	0.8	0.0	0.0	16.0	0.0	0.0	1.0
24	0.0	0.0	5.1	0.0	0.5	1.0	0.5	0.0	14.5	0.0	0.0	0.0
25	0.0	15.8	0.0	0.0	0.0	6.6	0.0	0.0	11.2	0.0	0.0	1.3
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	35.6	0.0	0.0	11.2
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.3	10.2	1.0	0.2
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	38.6	5.1	0.0	0.0
29	0.0		0.0	0.5	69.3	0.5	0.0	1.3	68.6	3.3	0.0	0.0
30	0.0		0.0	24.9	8.4	1.0	0.0	1.0	3.3	20.6	0.8	0.0
31	0.0		0.0		0.0		0.0	0.8		22.9		0.0
Total	51.0	104.3	109.4	132.1	455.3	235.2	25.1	269.2	320.3	168.3	141.0	79.0

Daily Rainfall at Clyde Estate

1987												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	0.0	0.0	0.0	1.5	28.7	0.0	1.3	0.0	0.0	11.2	0.0
2	0.0	0.0	0.0	0.0	1.3	30.5	0.0	10.2	0.0	0.0	15.2	0.0
3	0.0	0.0	0.0	5.1	0.5	37.1	0.0	2.3	0.0	0.0	16.0	0.0
4	0.0	0.0	0.0	0.8	0.0	26.7	0.0	3.3	0.0	0.0	7.6	0.0
5	0.0	0.0	0.0	0.0	0.0	23.1	0.0	2.3	0.0	0.0	17.0	1.5
6	0.0	0.0	0.0	0.0	0.0	20.8	0.0	1.8	0.0	5.1	11.2	10.2
7	0.0	0.0	0.0	0.0	0.0	6.6	0.0	2.5	0.0	3.8	15.2	0.0
8	0.0	0.0	0.0	0.0	1.8	0.0	0.0	11.2	0.0	31.2	1.0	0.0
9	1.0	0.0	0.0	0.0	0.0	0.0	0.0	14.2	0.0	67.3	21.3	13.5
10	0.8	0.0	0.0	0.0	0.0	0.0	0.0	18.3	1.0	61.7	0.0	2.5
11	0.0	0.0	0.0	0.0	0.0	20.3	0.0	150.6	0.8	62.2	0.0	11.2
12	0.0	0.0	0.0	0.0	0.0	17.0	0.0	83.1	0.0	34.3	0.0	0.0
13	0.0	0.0	0.0	0.0	0.8	5.3	0.0	15.2	1.0	63.5	59.7	0.0
14	1.3	0.0	0.0	0.0	1.0	15.2	0.0	16.0	8.6	45.2	53.3	0.0
15	0.0	0.0	3.1	0.0	20.8	39.6	0.0	4.1	21.3	54.4	46.5	0.0
16	0.5	0.0	0.0	10.2	5.1	20.3	0.0	14.7	35.6	43.9	36.6	0.0
17	0.0	0.0	0.0	4.1	0.0	16.0	0.0	33.0	67.2	35.8	0.5	0.0
18	0.0	0.0	0.0	11.2	0.5	12.7	0.0	37.0	17.8	11.9	2.0	0.0
19	0.0	0.0	0.0	45.8	1.2	8.6	0.0	17.0	81.3	0.0	1.5	0.0
20	0.0	0.0	0.0	43.2	0.0	0.5	0.0	30.5	40.6	0.0	1.0	0.0
21	0.0	0.0	0.0	11.7	0.0	0.0	0.0	19.1	35.6	0.0	14.5	0.0
22	0.0	0.0	0.0	7.6	0.0	0.8	0.0	16.3	58.4	10.2	1.3	0.0
23	0.0	0.0	0.0	1.0	4.1	1.0	0.0	6.1	85.1	31.2	0.5	0.0
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.5	20.3	54.1	0.0	0.0
25	0.0	0.0	0.0	0.0	1.0	0.2	0.0	12.7	30.5	41.7	0.8	20.3
26	0.0	0.0	0.0	0.0	12.7	8.6	0.0	16.3	147.3	10.9	0.0	0.0
27	0.0	0.0	0.5	0.0	7.1	0.0	0.0	7.6	40.6	67.8	0.0	0.0
28	0.0	0.0	10.2	0.0	15.2	0.0	0.0	5.3	4.6	1.0	0.0	0.0
29	0.0		0.8	13.2	10.2	0.0	0.0	1.0	0.0	10.2	0.0	0.0
30	0.0		0.0	1.0	55.9	0.0	0.0	0.3	0.0	30.4	0.0	0.0
31	0.0		0.0		38.9		0.0	0.0		18.3		0.0
Total	3.6	0.0	14.6	154.9	179.6	339.6	0.0	567.8	697.6	796.1	333.9	59.2

Daily Rainfall at Clyde Estate

1988												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	0.0	1.5	0.0	0.1	23.1	27.1	0.0	7.6	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.8	2.0	20.7	0.0	15.5	0.0	0.5	0.0
3	0.0	0.0	1.0	0.0	0.0	0.8	7.1	0.0	16.3	0.0	0.3	0.0
4	0.0	0.0	0.0	0.0	0.0	6.4	0.0	20.6	9.1	0.0	1.0	0.0
5	0.0	0.0	10.7	0.0	0.2	17.8	40.6	15.2	51.3	0.0	1.3	22.4
6	0.0	0.0	11.2	0.0	0.2	16.5	24.1	11.2	61.5	11.0	0.8	20.3
7	0.0	0.0	25.2	0.0	50.8	8.9	35.8	36.1	35.6	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	1.5	24.1	25.7	5.3	24.1	0.0	0.0	0.0
9	0.0	0.0	15.2	53.3	0.0	1.3	10.4	0.0	10.2	0.0	0.0	0.0
10	0.0	0.0	0.0	99.8	0.0	0.5	8.1	28.7	7.6	0.0	0.0	0.0
11	0.0	0.0	12.7	8.4	0.0	0.8	20.3	0.8	27.2	0.0	0.0	0.0
12	0.0	0.0	0.0	42.4	0.0	0.0	61.0	36.1	170.2	0.0	0.0	0.0
13	0.5	8.4	12.7	0.0	0.5	2.5	10.2	10.4	12.2	0.0	0.0	0.0
14	1.3	0.0	0.0	0.0	0.0	1.0	0.0	10.2	27.2	0.0	0.0	0.0
15	0.0	0.0	170.4	0.0	2.0	0.0	0.0	0.0	17.0	0.0	0.0	0.0
16	0.0	0.0	130.3	0.0	0.0	0.0	0.0	0.0	13.2	0.0	0.0	0.0
17	0.0	65.0	45.7	0.0	0.0	0.0	45.7	0.0	32.0	0.0	0.0	0.0
18	0.0	61.0	7.1	0.0	0.0	1.3	0.0	0.0	53.3	0.0	22.4	0.0
19	0.0	41.2	0.0	0.0	0.0	1.0	7.6	5.1	0.0	7.2	0.0	0.0
20	0.0	0.0	10.4	0.0	0.0	10.4	0.0	3.0	0.0	0.0	0.0	0.0
21	0.0	10.2	0.0	0.0	0.0	8.1	0.0	5.3	0.0	0.0	0.0	0.0
22	0.0	115.3	0.0	0.0	0.0	7.4	0.0	2.5	13.2	0.0	0.0	0.0
23	0.0	38.1	15.2	2.5	0.0	21.1	22.9	13.2	1.8	0.0	0.0	0.0
24	0.0	25.2	0.0	30.5	0.0	65.1	0.0	7.6	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	15.2	8.5	17.8	0.0	0.0	0.0	0.0	0.0	0.0
26	0.0	55.9	0.0	1.3	17.1	11.2	0.0	114.1	0.0	0.0	0.0	0.0
27	0.0	0.0	0.0	17.3	18.2	21.1	0.0	15.2	0.0	0.0	0.0	0.0
28	0.0	0.0	0.0	25.4	12.3	13.5	0.0	42.2	0.0	0.0	0.0	0.0
29	0.0	177.8	0.0	2.5	23.5	41.4	0.0	27.2	0.0	0.0	0.0	0.0
30	0.0		0.0	0.5	13.1	101.6	0.0	0.0	0.0	0.0	0.0	0.0
31	0.0		0.0		3.6		0.0	0.0		0.0		0.0
Total	1.8	598.1	469.3	299.6	152.4	426.7	367.3	410.0	606.1	18.2	26.3	42.7

Daily Rainfall at Clyde Estate

1989												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	0.0	0.0	0.0	10.7	13.0	0.0	0.0	0.0	16.0	3.6	0.0
2	0.0	0.0	2.0	0.0	44.5	38.9	0.0	0.0	0.0	0.0	0.0	0.0
3	0.0	0.0	0.0	0.0	0.0	51.6	0.0	0.0	15.5	0.0	0.0	20.3
4	0.0	0.0	0.0	0.0	19.1	28.9	0.0	0.8	20.6	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	5.6	43.7	0.0	0.1	18.8	13.2	0.0	0.0
6	0.0	0.0	0.0	0.0	15.8	41.7	0.0	1.5	14.2	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	24.4	22.9	2.5	2.5	0.0	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	43.9	26.7	3.1	0.0	0.0	0.0	0.0	0.0
9	0.0	0.0	0.0	0.0	51.8	0.8	0.0	0.0	13.2	0.0	0.0	0.0
10	0.0	0.0	4.1	25.1	74.7	1.0	43.4	0.0	0.0	0.0	0.0	0.0
11	0.0	0.0	0.0	0.0	8.9	20.3	48.8	0.0	6.4	10.2	0.0	0.0
12	0.0	0.0	0.0	0.0	11.2	36.1	38.1	0.0	15.8	0.0	0.0	0.0
13	0.0	0.0	0.0	0.0	1.0	7.6	0.8	0.0	10.4	15.2	0.0	0.0
14	1.3	0.0	0.0	0.0	2.8	4.1	2.8	0.0	18.0	25.2	0.0	0.0
15	1.0	0.0	0.0	0.0	1.5	1.0	3.3	0.0	9.4	17.0	0.0	0.0
16	12.7	0.0	0.0	0.0	0.8	0.8	1.8	0.0	0.0	17.3	0.0	0.0
17	0.0	0.0	0.0	76.2	1.3	0.3	1.0	0.0	18.5	10.2	10.7	0.0
18	0.0	0.0	0.0	61.2	14.5	6.1	0.5	0.0	19.6	85.3	21.6	0.0
19	0.0	0.0	0.0	12.7	11.2	6.9	1.3	0.0	11.7	16.3	18.5	0.0
20	0.0	0.0	0.0	8.1	37.1	9.7	28.2	0.0	15.2	18.0	1.0	0.0
21	0.0	0.0	0.0	2.8	20.8	10.2	20.3	0.0	20.3	10.2	0.0	0.0
22	0.0	0.0	0.0	29.2	26.2	11.4	21.1	0.0	16.3	12.7	0.0	0.0
23	0.0	0.0	0.0	22.4	33.8	13.0	0.0	0.0	17.3	0.0	0.0	0.0
24	0.0	37.1	0.0	0.5	25.4	0.0	0.0	0.0	21.6	0.0	0.0	0.0
25	0.0	0.0	0.0	14.0	8.4	8.4	0.0	0.0	15.8	11.2	0.0	0.0
26	0.0	0.0	0.0	46.2	12.7	10.9	0.0	0.0	13.2	0.0	0.0	0.0
27	0.0	0.0	0.0	97.3	4.1	0.8	0.0	0.0	0.0	0.0	0.0	0.0
28	0.0	0.0	0.0	79.0	1.5	0.0	0.0	0.0	0.0	128.5	0.0	0.0
29	0.0		0.0	0.0	41.2	0.0	0.0	0.0	0.0	0.0	0.0	40.6
30	0.0		0.0	0.0	43.7	0.0	0.0	0.0	0.0	88.1	0.0	7.6
31	0.0		0.0		0.8		0.0	0.0		11.7		0.0
Total	15.0	37.1	6.1	474.7	599.4	416.8	217.0	4.9	311.8	506.3	55.4	68.5

Daily Rainfall at Clyde Estate

1990												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	61.0	0.0	0.0	0.0	0.0	3.6	0.0	0.0	3.1	13.2	
2	0.0	0.0	0.0	23.7	0.0	0.0	0.0	0.0	0.0	13.2	25.2	
3	0.0	0.0	15.8	0.0	0.0	10.2	1.8	0.0	0.0	3.1	13.5	
4	0.0	0.0	0.0	0.0	74.2	15.2	13.2	0.0	1.8	0.0	10.2	
5	0.0	0.0	0.0	23.1	10.2	6.1	0.5	0.0	1.3	0.0	0.5	
6	0.0	0.0	0.0	0.0	9.1	1.0	1.0	0.0	0.5	0.0	64.8	
7	0.0	0.0	0.0	0.0	12.2	95.8	0.3	0.0	1.8	0.0	12.7	
8	0.0	0.0	0.0	0.0	25.2	16.8	0.8	0.8	0.8	0.0	52.6	
9	0.0	0.0	0.0	0.0	15.2	9.1	7.9	1.8	0.3	0.0	25.2	
10	0.0	0.0	0.0	0.0	12.2	10.9	27.2	0.0	2.5	0.8	0.0	
11	0.0	0.0	0.0	17.3	14.2	0.8	0.0	11.2	0.0	0.0	0.0	
12	0.0	0.0	0.0	40.1	0.0	2.5	0.0	3.1	0.0	0.3	0.0	
13	0.0	0.0	0.0	0.0	23.1	0.0	7.9	0.0	0.0	0.5	0.0	
14	0.0	0.0	0.0	0.0	22.1	0.0	8.1	0.0	0.0	10.7	0.0	
15	0.0	0.0	0.0	13.2	14.2	0.0	10.2	0.0	0.0	0.0	0.0	
16	0.0	0.0	0.0	52.8	55.1	0.0	16.5	0.0	0.0	0.0	0.0	
17	0.0	0.0	0.0	0.0	13.2	0.0	0.0	0.0	0.0	0.0	23.9	
18	0.0	0.0	1.0	0.0	10.7	0.0	0.0	0.0	0.0	0.0	0.0	
19	0.0	0.0	2.8	24.1	21.3	0.0	0.0	0.0	0.0	0.3	0.0	
20	0.0	0.0	17.8	18.0	7.9	0.0	0.0	0.0	0.0	1.0	0.0	
21	0.0	0.0	2.5	0.0	1.0	0.0	0.0	0.0	0.0	0.8	53.9	
22	0.0	0.0	4.3	23.1	4.1	0.0	8.1	0.0	0.0	1.5	8.1	
23	0.0	5.1	6.1	0.0	2.5	0.0	5.8	0.0	0.5	0.0	10.2	
24	0.0	0.0	7.6	0.0	3.1	0.0	27.4	0.0	1.0	65.5	0.0	
25	0.0	0.0	13.0	0.0	7.6	0.0	1.3	0.0	0.0	38.4	0.0	
26	0.0	0.0	25.4	0.0	10.7	6.4	0.0	0.0	0.0	0.0	26.2	
27	0.0	0.0	0.5	0.0	17.8	6.6	0.0	0.0	0.0	1.5	25.2	
28	0.0	0.0	1.0	0.0	0.5	0.0	0.0	0.0	0.0	20.8	10.2	
29	0.0		1.5	24.1	1.5	0.0	0.0	0.0	0.3	46.0	0.0	
30	0.0		3.3	0.0	0.8	11.7	0.0	0.0	0.5	28.5	0.0	
31	0.0		0.0		3.3		0.0	0.0		27.2		
Total	0.0	66.1	102.6	259.5	393.0	193.1	141.6	16.9	11.3	263.2	375.6	

Daily Rainfall at Clyde Estate

1991												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	35.6		0.0	0.0	25.4	0.0	2.8	0.0	13.2		
2	0.0	0.0		0.0	0.0	17.8	0.0	0.0	0.0	18.3		
3	0.0	0.0		0.0	0.0	27.9	0.0	0.0	0.0	34.3		
4	0.0	0.0		0.0	0.0	20.3	0.0	1.0	0.0	5.8		
5	0.0	0.0		0.8	0.0	0.0	0.0	0.0	0.0	1.8		
6	0.0	0.0		4.1	0.5	7.6	0.0	0.0	0.0	1.3		
7	0.0	0.8		6.1	13.7	0.0	0.0	0.5	0.0	0.0		
8	0.0	0.0		11.2	0.0	0.0	22.9	5.6	0.0	0.0		
9	0.0	0.0		0.0	0.0	10.5	28.7	1.5	0.0	0.0		
10	97.0	0.0		0.0	0.0	7.9	12.2	13.2	0.0	0.0		
11	41.4	0.0		0.0	1.8	0.0	24.9	20.6	0.0	0.0		
12	0.0	0.0		0.0	40.6	0.0	0.8	7.1	0.0	15.8		
13	0.0	0.0		0.5	0.0	0.0	0.0	26.7	0.0	65.5		
14	0.0	0.0		1.8	1.1	0.0	7.1	38.9	0.0	1.0		
15	0.0	0.0		0.0	2.3	22.9	0.0	1.0	0.8	8.4		
16	15.2	0.0		0.0	1.3	12.7	0.0	2.8	24.9	21.3		
17	10.2	0.0		0.0	3.3	5.1	0.0	0.0	24.1	1.3		
18	0.0	0.0		0.0	0.5	0.0	0.0	0.0	8.1	0.8		
19	0.0	0.0		0.0	0.8	28.2	1.3	0.0	1.8	2.0		
20	0.0	0.0		0.0	0.0	5.1	0.0	0.0	0.0	111.0		
21	0.0	21.3		0.0	0.0	10.2	0.0	0.0	0.0	17.8		
22	0.0	0.0		2.8	0.0	0.0	0.0	7.6	0.0	8.1		
23	0.0	0.0		1.3	0.0	0.0	0.0	0.0	0.0	29.2		
24	0.0	0.0		13.2	36.3	0.0	0.0	0.8	0.0	125.7		
25	0.0	0.0		0.3	30.7	15.2	0.0	0.0	0.0	3.6		
26	0.0	1.0		0.0	31.5	22.9	0.0	0.0	0.0	4.1		
27	0.0	0.0		0.0	34.5	7.6	0.0	0.0	6.6	7.1		
28	0.0	0.0		83.1	24.1	5.1	0.0	0.0	0.0	81.3		
29	0.0			0.8	22.9	2.5	33.8	23.9	40.5	71.1		
30	0.0			1.0	142.2	17.8	2.8	0.0	27.9	81.3		
31	0.0				137.2		3.3	0.0		2.8		
Total	163.8	58.7		127.0	525.3	272.7	137.8	154.0	134.8	733.9		

Daily Rainfall at Clyde Estate

1992												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	34.5	0.0	0.0	0.0				0.0	0.0	13.2	0.0	0.0
2	0.0	0.0	0.0	0.0				0.0	8.1	1.8	0.0	25.0
3	0.0	0.0	0.0	0.0				0.0	0.5	14.7	31.0	28.0
4	0.0	0.0	0.0	0.0				0.0	0.0	7.1	24.5	40.8
5	0.0	0.0	0.0	0.0				0.0	0.0	1.5	39.6	30.0
6	0.0	0.0	0.0	0.0				1.5	13.2	10.2	0.4	5.3
7	0.0	0.0	0.0	0.0				4.1	19.0	1.8	0.7	0.0
8	0.0	0.0	0.0	0.0				0.0	47.2	10.2	0.0	0.0
9	0.0	0.0	0.0	0.0				0.0	0.5	12.7	0.0	0.0
10	0.0	0.0	0.0	0.0				0.0	25.2	31.8	20.4	0.0
11	0.0	0.0	0.0	0.0				1.3	20.3	20.3	87.5	0.0
12	0.0	0.0	0.0	0.0				0.0	2.5	35.5	85.4	0.0
13	0.0	0.0	0.0	0.0				0.8	0.8	10.2	47.5	0.0
14	0.0	0.0	0.0	0.0				2.0	0.8	14.7	35.5	3.0
15	0.0	0.0	0.0	0.0				0.0	0.0	1.3	0.0	2.8
16	0.0	0.0	0.0	3.8				0.5	0.0	0.0	0.0	2.2
17	11.9	0.0	0.0	2.0				1.5	0.0	0.0	0.0	14.2
18	2.8	0.0	0.0	0.0				0.0	0.0	0.0	0.0	9.3
19	0.0	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0
20	0.0	0.0	0.0	24.9				0.0	0.0	0.0	0.0	0.0
21	0.0	0.0	0.0	5.2				0.0	2.0	0.0	7.5	0.0
22	0.0	0.0	0.0	1.3				0.0	4.6	0.0	39.4	0.0
23	0.0	0.0	0.0	1.3				0.0	0.0	0.0	51.3	0.0
24	0.0	0.0	0.0	5.3				0.0	0.0	0.0	2.0	0.0
25	0.0	0.0	0.0	12.1				3.1	0.0	0.0	2.1	0.0
26	0.0	0.0	0.0	6.2				5.3	47.2	0.0	11.5	0.0
27	0.0	0.0	0.0	3.3				6.4	45.2	0.0	76.4	0.0
28	0.0	0.0	0.0	0.7				10.2	32.0	6.4	1.6	0.0
29	0.0	0.0	0.0	15.1				31.5	46.5	0.0	0.0	0.0
30	0.0		6.6	10.1				11.4	5.6	0.0	17.5	0.0
31	0.0		0.0					13.2		0.0		0.0
Total	49.2	0.0	6.6	91.3	0.0	0.0	0.0	92.8	321.2	193.4	581.8	160.6

DISCHARGE RATING CURVE AT PUTUPAULA

$Q = 76.05 \cdot (H+0.4)^{1.49}$
for 1988 to date

for 1976 to 1987

Discharge Measurement

Q		Q		Discharge Measurement		Remarks	
(cumecs)	H (meters)	(cumecs)	H (meters)	Q(est) (cumecs)	Q(raw) (cumecs)		H (s.g.)
19.4	0.0	42.5	0.30	111.9	139.9	0.825	Jan.11
27.1	0.1	87.8	0.61	106.2	132.8	0.725	Jan.13
35.5	0.2	134.5	0.91	257.4	321.8	1.525	Jan.19
44.7	0.3	184.0	1.22	128.6	160.7	0.705	Feb.21
54.5	0.4	229.4	1.52				
65.0	0.5	277.5	1.83				
76.1	0.6	325.6	2.13				
87.7	0.7	379.4	2.44				
99.8	0.8	427.6	2.74				
112.4	0.9	478.5	3.05				
125.6	1.0						
139.1	1.1						
153.2	1.2						
167.7	1.3						
182.6	1.4						
197.9	1.5						
213.6	1.6						
229.7	1.7						
246.2	1.8						
263.1	1.9						
280.3	2						
297.9	2.1						
315.8	2.2						
352.7	2.4						
390.8	2.6						
430.3	2.8						

DISCHARGE RATING CURVE AT ELLAGAWA
by Department of Irrigation

H (feet)	Q (cusecs)	H (meters)	Q (cumecs)
13	200	3.96	5.66
14	350	4.27	9.91
15	450	4.57	12.74
16	900	4.88	25.48
17	1400	5.18	39.64
18	1950	5.49	55.21
19	2550	5.79	72.20
20	3200	6.10	90.61
21	4000	6.40	113.26
22	4900	6.71	138.74
23	5900	7.01	167.06

measured by Study Team

Q (cumecs)	H (feet)	H (m)	Remarks
47.10	18.44	5.62	Jan.11
49.70	18.16	5.54	Jan.13
141.90	21.32	6.50	Jan.19
81.4	19.075	5.81	Feb.21

ANNUAL FLOOD PEAK AT PUTUPAULA

Year	Peak (cu.m/s)
1943	2011
1944	1430
1945	1529
1946	2549
1947	1713
1948	
1949	1184
1950	1436
1951	1459
1952	1352
1953	1314
1954	1671
1955	1467
1956	1518
1957	1218
1958	793
1959	578
1960	708
1961	1048
1962	864
1963	1028
1964	947
1965	1226
1966	
1967	1283
1968	1047
1969	797
1970	1029
1971	978
1972	779
1973	857
1974	1055
1975	864
1976	807
1977	1444
1978	975
1979	
1980	878
1981	1153
1982	
1983	
1984	906
1985	926
1986	842
1987	
1988	1141
1989	739
1990	900
1991	948
1992	1079

Probability Analysis of Flood Peak at Putupaula

Gumbel

T	1-F	S	Y	X
1000.	.00100	3.0902	6.907268	8.724
500.	.00200	2.8782	6.213620	8.331
400.	.00250	2.8071	5.990214	8.205
300.	.00333	2.7131	5.702115	8.042
250.	.00400	2.6521	5.519455	7.938
200.	.00500	2.5758	5.295813	7.812
150.	.00667	2.4748	5.007294	7.649
100.	.01000	2.3263	4.600150	7.418
80.	.01250	2.2414	4.375745	7.291
60.	.01667	2.1281	4.085954	7.127
50.	.02000	2.0537	3.901940	7.023
40.	.02500	1.9600	3.676248	6.895
30.	.03333	1.8339	3.384294	6.730
25.	.04000	1.7507	3.198534	6.625
20.	.05000	1.6449	2.970195	6.495
15.	.06667	1.5011	2.673752	6.328
10.	.10000	1.2816	2.250367	6.088
8.	.12500	1.1503	2.013419	5.954
5.	.20000	.8416	1.499940	5.663
4.	.25000	.6745	1.245899	5.519
3.	.33333	.4307	.902720	5.325
2.	.50000	.0000	.366513	5.021
* 3.	.66667	-.4307	-.094048	4.761
* 4.	.75000	-.6745	-.326634	4.629
* 5.	.80000	-.8416	-.475885	4.545
* 8.	.87500	-1.1503	-.732099	4.400
* 10.	.90000	-1.2816	-.834032	4.342
* 15.	.93333	-1.5011	-.996229	4.250
* 20.	.95000	-1.6449	-1.097189	4.193
* 25.	.96000	-1.7507	-1.169032	4.152
* 30.	.96667	-1.8339	-1.224127	4.121
* 40.	.97500	-1.9600	-1.305323	4.075
* 50.	.98000	-2.0537	-1.364055	4.042
* 60.	.98333	-2.1281	-1.409607	4.016
* 80.	.98750	-2.2414	-1.477512	3.978
* 100.	.99000	-2.3263	-1.527180	3.949
* 150.	.99333	-2.4748	-1.611563	3.902
* 200.	.99500	-2.5758	-1.667390	3.870
* 250.	.99600	-2.6521	-1.708642	3.847
* 300.	.99667	-2.7131	-1.741130	3.828
* 400.	.99750	-2.8071	-1.790336	3.800
* 500.	.99800	-2.8782	-1.826905	3.780
* 1000.	.99900	-3.0902	-1.932647	3.720

EXTENT OF SALINITY INTRUSION

MEASUREMENT OF SALINITY
on February 9, 1994 (O=90 cu.m/s)

MEASUREMENT OF SALINITY
on January 31, 1994 (O=60 cu.m/s)

No	Location	X (km)	Time	Depth (m)	Surface C(ppm)	Bottom C(ppm)	T(deg)	No.	Location	X (km)	Time	Depth (m)	Surface C(ppm)	Bottom C(ppm)	T(deg)
1	Estuary	-2.25	10:34	2.4				1	Estuary	-2.25	10:29	4.95	250		28.8
2		-2.25	10:40	4.8	4.813	29.0	29.0	2		-1.25	10:35	3.35	160	8.054	28.6
3		-1.25	10:48	3.7	3.987	28.9	28.9	3		-0.25	10:45	3.70	160	8.054	28.4
4		-0.25	10:57	3.3	2.688	29.1	29.1	4	K.Bridge	0.00	10:50	4.22	78	4.608	28.3
5	K.Bridge	0.00	13:40	3.3	2.547	29.7	29.7	5		1.42	11:00	4.27	41	6.3	28.2
6		1.42	13:49	4.5	166	29.8	29.8	6		3.11	11:16	4.50	35	3.1	28.3
7		3.11	14:03	4.5	42	29.9	60	7		4.54	11:26	3.35	26	2.9	28.5
8		4.54	14:18	2.8	36	29.5	38	8		5.56	11:36	10.20	26	2.6	28.6
9		5.56	14:27	7.0	35	31.1	35	9		8.30	11:58	10.00	28	3.0	28.7
10		7.27	14:41	5.2	29	29.5		10		11.16	12:53	3.60	28	2.9	28.8
11		8.30	14:49	7.8	33	29.9		11		13.13	13:10	13.00	28	2.9	28.5
12		9.65	15:01	9.1				12		14.00	13:20	7.20	29	2.9	28.6
13		11.16	15:13	5.0	30			13		15.31	13:30	5.10	29	2.9	28.7
14		13.13	15:25	3.3	28	29.8	29.8	14		14.00	14:05	8.53	29	2.9	28.8
15		14.00	15:30	16.0	31	29.6		15		13.13	14:12	10.20	30	2.9	28.7
16		15.31	15:42	4.9	30	29.9		16		11.16	14:25	3.90	29	2.9	28.9
17		8.30	16:22		34	29.7		17		8.30	14:45	7.50	28	2.8	29.2
18		7.27	16:30		34	29.8	34	18		5.56	15:00	7.80	28	2.8	29.6
19		5.56	16:42		37	29.7	38	19		4.54	15:10	5.10	28	2.8	28.7
20		4.54	16:52		40	29.4	40	20		3.11	15:21	4.80	30	3.3	28.5
21		3.11	17:04		209	30.0	2.675	21		1.42	15:34	3.90	42	4.0	29.0
22		1.42	17:15	4.9	1,088	29.9	12,800	22	K.Bridge	0.00	15:45	4.50	105	12,800	28.9
23								23		-0.25	15:50	6.90	192	12,800	29.1
24								24		-1.25	15:57	3.90	339	12,800	28.5
25								25	Estuary	-2.25	16:05	3.00	589	1926	29.3

MEASUREMENT OF SALINITY
on March 4, 1994 (C=40 eu/mis)

No	Location	X (km)	Time	Depth (m)	Surface C(ppm)	Surface T(deg)	Bottom C(ppm)	Bottom T(deg)
2	Estuary	-2.25	9:50	2.5	4,160	29.9	4,872	-
3		-1.25	9:55	3.1	3,712	30.2	12,800	-
4		-0.25	10:05	2.4	4,032	30.4	9,088	30.2
5	K. Bridge	0.00	10:10	3.6	3,072	30.1	12,800	29.9
6		1.42	10:25	6.0	1,408	30.3	12,800	29.9
7		3.11	10:35	4.2	1,216	30.3	12,800	29.9
8		4.54	10:47	4.7	1,024	30.2	12,800	30
9		5.56	10:55	10.3	52	30.1	6,528	29.8
10		7.27	11:10	4.6	36	29.6	43	29.3
6		1.42	13:20	5.9	1,024	31.3	12,800	30
7		3.11	13:30	6.6	640	30.6	12,800	30.2
8		4.54	13:40	2.3	576	30.3	1,280	29.9
9		5.56	13:48	10.8	48	30.1	5,120	29.9
10		7.27	14:00	5.7	41	30.0	37	29.6
11		8.60	14:07	10.8	28	30.3	42	29.8
12		9.65	14:15	6.9	37	30.4	41	29.9
9		5.56	15:00	11.2	77	30.4	6,592	30
8		4.54	15:08	8.4	384	30.1	10,048	30
7		3.11	15:20	4.5	896	30.3	12,800	30.5

WATER-LEVEL ON SALINITY MEASUREMENT

Date	Time	Kalutara (m.SG)	Kalutara (m.MSL)	Colombo (m.SG)	Colombo (m.MSL)	Putupau (m.SG)	Putupau (m.MSL)	Ellagaw (f.SG)	Ellagawa (m.S.G)
31/01/94	7			0.62	0.19			16.50	5.03
31/01/94	8			0.45	0.02			16.50	5.03
31/01/94	9			0.32	-0.11			16.50	5.03
31/01/94	10	0.69	-0.06	0.26	-0.17	0.47	0.42	16.50	5.03
31/01/94	11	0.64	-0.11	0.28	-0.15	0.35	0.30	16.50	5.03
31/01/94	12	0.69	-0.06	0.37	-0.06	0.32	0.27	16.50	5.03
31/01/94	13	0.77	0.02	0.50	0.07	0.30	0.25	16.40	5.00
31/01/94	14	0.89	0.14	0.65	0.22	0.39	0.34	16.40	5.00
31/01/94	15	1.05	0.30	0.78	0.35	0.52	0.47	16.40	5.00
31/01/94	16	1.18	0.43	0.86	0.43	0.62	0.57	16.40	5.00
31/01/94	17	1.25	0.50	0.89	0.45	0.76	0.71	16.45	5.01

D.L.=-0.749m

D.L.=-0.43m

D.L.=-0.054m

Date	Time	Kalutara (m.SG)	Kalutara (m.MSL)	Colombo (m.SG)	Colombo (m.MSL)	Putupau (m.SG)	Putupau (m.MSL)	Ellagaw (f.SG)	Ellagawa (m.S.G)
09/02/94	7			0.38	-0.05			18.10	5.52
09/02/94	8			0.35	-0.08			18.10	5.52
09/02/94	9			0.38	-0.05			18.05	5.50
09/02/94	10	0.60	0.22	0.46	0.03	0.57	0.52	18.00	5.49
09/02/94	11	0.70	0.32	0.56	0.13	0.60	0.55	18.00	5.49
09/02/94	12	0.82	0.44	0.66	0.23	0.65	0.60	17.90	5.46
09/02/94	13	0.91	0.53	0.74	0.31	0.71	0.66	17.70	5.39
09/02/94	14	0.95	0.57	0.76	0.33	0.77	0.72	17.65	5.38
09/02/94	15	0.95	0.57	0.73	0.30	0.81	0.76	17.55	5.35
09/02/94	16	0.89	0.51	0.65	0.22	0.85	0.80	17.50	5.33
09/02/94	17			0.54	0.11			17.60	5.36

D.L.=-0.380m

D.L.=-0.43m

D.L.=-0.054m

Date	Time	Kalutara (m.SG)	Kalutara (m.MSL)	Colombo (m.SG)	Colombo (m.MSL)	Putupau (m.SG)	Putupau (m.MSL)	Ellagaw (f.SG)	Ellagawa (m.S.G)
04/03/94	7			0.63	0.20	0.55	0.50	15.60	4.75
04/03/94	8			0.54	0.11	0.49	0.44	15.60	4.75
04/03/94	9	0.24	0.13	0.44	0.01	0.34	0.29	15.60	4.75
04/03/94	10	0.18	0.07	0.36	-0.07	0.26	0.21	15.60	4.75
04/03/94	11	0.12	0.01	0.31	-0.12	0.24	0.19	15.55	4.74
04/03/94	12	0.09	-0.02	0.33	-0.10	0.22	0.17	15.55	4.74
04/03/94	13	0.14	0.03	0.39	-0.04	0.23	0.18	15.50	4.72
04/03/94	14	0.21	0.10	0.49	0.06	0.27	0.22	15.50	4.72
04/03/94	15	0.29	0.18	0.59	0.16	0.35	0.30	15.50	4.72
04/03/94	16	0.40	0.29	0.68	0.25	0.42	0.37	15.50	4.72
04/03/94	17			0.74	0.31	0.48	0.43	15.50	4.72

D.L.=-0.109m

D.L.=-0.43m

D.L.=-0.054m

DISCHARGE ON SALINITY MEASUREMENT

Aella= 1393km², Aputu=2598km²

Date	Time	Putupau (m.SG)	Putupau (m.MSL)	Putupau (M3/S)	Ellagaw (f.SG)	Ellagawa (m.SG)	Ellagaw (M3/S)	Ella* 1.865 (M3/S)
31/01/94	7				16.50	5.03	32.56	60.72
31/01/94	8				16.50	5.03	32.56	60.72
31/01/94	9				16.50	5.03	32.56	60.72
31/01/94	10	0.47	0.42	56.17	16.50	5.03	32.56	60.72
31/01/94	11	0.35	0.30	44.32	16.50	5.03	32.56	60.72
31/01/94	12	0.32	0.27	41.50	16.50	5.03	32.56	60.72
31/01/94	13	0.30	0.25	39.66	16.40	5.00	31.14	58.08
31/01/94	14	0.39	0.34	48.17	16.40	5.00	31.14	58.08
31/01/94	15	0.52	0.47	61.38	16.40	5.00	31.14	58.08
31/01/94	16	0.62	0.57	72.23	16.40	5.00	31.14	58.08
31/01/94	17	0.76	0.71	88.37	16.45	5.01	31.62	58.97

D.L.=-0.054m

Date	Time	Putupau (m.SG)	Putupau (m.MSL)	Putupau (M3/S)	Ellagaw (f.SG)	Ellagawa (m.SG)	Ellagaw (M3/S)	Ella* 1.865 (M3/S)
09/02/94	7				18.10	5.52	56.91	106.14
09/02/94	8				18.10	5.52	56.91	106.14
09/02/94	9				18.05	5.50	55.78	104.03
09/02/94	10	0.57	0.52	66.73	18.00	5.49	55.21	102.97
09/02/94	11	0.60	0.55	70.01	18.00	5.49	55.21	102.97
09/02/94	12	0.65	0.60	75.60	17.90	5.46	53.70	100.15
09/02/94	13	0.71	0.66	82.48	17.70	5.39	50.19	93.60
09/02/94	14	0.77	0.72	89.56	17.65	5.38	49.69	92.67
09/02/94	15	0.81	0.76	94.39	17.55	5.35	48.18	89.86
09/02/94	16	0.85	0.80	99.29	17.50	5.33	47.17	87.97
09/02/94	17			19.42	17.60	5.36	48.68	90.79

D.L.=-0.054m

Date	Time	Putupau (m.SG)	Putupau (m.MSL)	Putupau (M3/S)	Ellagaw (f.SG)	Ellagawa (m.SG)	Ellagaw (M3/S)	Ella* 1.865 (M3/S)
04/03/94	7	0.55	0.50		15.60	4.75	20.13	37.54
04/03/94	8	0.49	0.44		15.60	4.75	20.13	37.54
04/03/94	9	0.34	0.29		15.60	4.75	20.13	37.54
04/03/94	10	0.26	0.21	36.06	15.60	4.75	20.13	37.54
04/03/94	11	0.24	0.19	34.30	15.55	4.74	19.73	36.80
04/03/94	12	0.22	0.17	32.57	15.55	4.74	19.73	36.80
04/03/94	13	0.23	0.18	33.43	15.50	4.72	18.90	35.25
04/03/94	14	0.27	0.22	36.95	15.50	4.72	18.90	35.25
04/03/94	15	0.35	0.30	44.32	15.50	4.72	18.90	35.25
04/03/94	16	0.42	0.37	51.12	15.50	4.72	18.90	35.25
04/03/94	17	0.48	0.43	57.20	15.50	4.72	18.90	35.25

D.L.=-0.054m

DEPTH OBSERVATION OF KALU GANGA

June 15, 1994

NO.	X (km)	Time	h(ctr) (m)	h(max) (m)	H(Ktr) (m.MSL)	H(Ptp) (m.MSL)	H (m.MSL)	Z (m.MSL)	Lowest Z (m.MSL)
1	Kalutara I. 15.44	10:17	3.2		0.41	0.51	0.49	-2.71	
2	15.98	10:24	11.2		0.41	0.51	0.49	-10.71	
3	16.61	10:33	3.0		0.40	0.51	0.49	-2.51	
4	17.34	10:38	2.4		0.40	0.50	0.49	-1.91	
5	18.39	10:47	1.8		0.40	0.50	0.49	-1.31	
6	Putupaula 19.95	11:16	4.9		0.39	0.49	0.49	-4.41	
7	20.41	11:20	1.2		0.38	0.49	0.49	-0.71	
8	20.87	11:25	2.0		0.38	0.48	0.48	-1.52	
9	21.30	11:29	3.4		0.38	0.48	0.49	-2.91	
10	21.87	11:34	8.8		0.38	0.48	0.49	-8.31	
11	22.18	11:38	4.3		0.38	0.48	0.49	-3.81	
12	22.75	11:42	1.9	2.5	0.38	0.48	0.49	-1.41	-2.01
13	23.14	11:47	2.0		0.37	0.47	0.49	-1.51	
14	23.89	11:53	3.5	4.0	0.37	0.47	0.49	-3.01	-3.51
15	24.05	11:56	1.5	2.4	0.37	0.47	0.49	-1.01	-1.91
16	Intake Sit 24.47	12:02	2.0	4.2	0.37	0.47	0.49	-1.51	-3.71
17	25.29	12:10	2.0	3.0	0.38	0.47	0.49	-1.51	-2.51
18	Kuda G. 26.00	12:29	6.5	6.5	0.39	0.47	0.49	-6.01	-6.01
19	26.16	12:34	1.2	1.8	0.40	0.48	0.50	-0.70	-1.30
20	Drop 27.14	12:42	2.0	3.8	0.41	0.48	0.51	-1.49	-3.29

Location

0km

19.95km

DEPTH OBSERVATION OF KALU GANGA

June 20, 1994

NO.	X (km)	Time	h(ctr) (m)	h(max) (m)	H(ktr) (m.MSL)	H(ftp) (m.MSL)	H (m.MSL)	Z (m.MSL)	Lowest Z (m.MSL)
1	Kalutara I. 15.44	11:17	3.3		0.67	1.18	1.06	-2.24	
2	15.98	11:21	10.5		0.67	1.18	1.08	-9.42	
3	16.61	11:25	6.5		0.67	1.18	1.09	-5.41	
4	17.34	11:29	3.0		0.67	1.19	1.12	-1.88	
5	18.39	11:40	3.5		0.67	1.19	1.15	-2.35	
6	19.95	11:52	3.2	4.8	0.66	1.19	1.19	-2.01	-3.61
7	20.41	11:56	2.0	2.4	0.66	1.19	1.20	-0.80	-1.20
8	20.87	12:01	2.2		0.66	1.20	1.22	-0.98	
9	21.30	12:04	4.1		0.66	1.20	1.24	-2.86	
10	21.87	12:08	7.6		0.66	1.20	1.25	-6.35	
11	22.18	12:12	3.3		0.66	1.20	1.26	-2.04	
12	22.75	12:16	3.0		0.66	1.21	1.29	-1.71	
13	23.14	12:18	2.6		0.66	1.21	1.30	-1.30	
14	23.89	12:24	4.2		0.66	1.21	1.32	-2.88	
15	24.05	12:26	2.5		0.66	1.21	1.32	-1.18	
16	Intake Sit 24.47	12:30	3.0	4.5	0.66	1.22	1.35	-1.65	-3.15
17	25.29	12:36	3.2		0.65	1.22	1.37	-1.83	
18	Kuda G. 26.00	12:41	8.4		0.65	1.22	1.39	-7.01	
19	26.16	12:43	2.0		0.65	1.23	1.41	-0.59	
20	Drop 27.14	12:49	3.0		0.65	1.23	1.44	-1.56	

Location 0km 19.95km

WATER LEVEL AT GAUGING STATIONS
on June 15 '94

Time	Port(est) (m.SG)	Kalutara (m.SG)	Putupaul (m.SG)	Ferry (m.SG)	Ellagawa (f.SG)	Ellagawa (cu.f/s)
7	0.61		0.69	0.56	17.6	1730
8	0.53	0.40	0.67	0.56	17.6	1730
9	0.44	0.31	0.64	0.56	17.6	1730
10	0.37	0.23	0.57	0.56	17.6	1730
11	0.34	0.20	0.55	0.56	17.6	1730
12	0.35	0.18	0.52	0.55	17.6	1730
13	0.42	0.23	0.53	0.54	17.6	1730
14	0.51	0.29	0.56	0.54	17.6	1730
15	0.59	0.34			17.6	1730
16	0.66	0.40			17.6	1730
17	0.70	0.48			17.6	1730

Time	Port (m.MSL)	Kalutara (m.MSL)	Putupaul (m.MSL)	Ferry (m.MSL)	Ellagawa (m.SG)	Ellagawa (cu.m/s)
7	0.18		0.64	1.09	5.36	48.91
8	0.10	0.59	0.62	1.09	5.36	48.91
9	0.01	0.50	0.59	1.09	5.36	48.91
10	-0.06	0.42	0.52	1.09	5.36	48.91
11	-0.09	0.39	0.50	1.09	5.36	48.91
12	-0.08	0.37	0.47	1.08	5.36	48.91
13	-0.01	0.42	0.48	1.07	5.36	48.91
14	0.08	0.48	0.51	1.07	5.36	48.91
15	0.16	0.53			5.36	48.91
16	0.23	0.59			5.36	48.91
17	0.27	0.67			5.36	48.91

DL=-0.43m

DL=-0.05

DL=0.19m

DL=0.529m

WATER LEVEL AT GAUGING STATIONS
on June 20 '14

Time	Port(est) (m.SG)	Kalutara (m.SG)	Putupaul (m.SG)	Ferry (m.SG)	Ellagawa (f.SG)	Ellagawa (cu.f/s)
7	0.33	0.16	1.30	-	20.05	
8	0.39	0.24	1.25	-	20.10	
9	0.48	0.34	1.24	-	19.90	
10	0.58	0.43	1.23	-	19.90	
11	0.66	0.49	1.23	-	19.80	
12	0.72	0.47	1.25	-	19.80	
13	0.73	0.46	1.29	-	19.75	
14	0.70	0.42	1.32	-	19.70	
15	0.64	0.38	1.36	-	19.60	
16	0.56	0.29	1.35	-		
17	0.48	0.23	1.33	-		

Time	Port(est) (m.MSL)	Kalutara (m.MSL)	Putupaul (m.MSL)	Ferry (m.MSL)	Ellagawa (m.SG)	Ellagawa (cu.m/s)
7	-0.10	0.35	1.25	-	-	
8	-0.04	0.43	1.20	-	6.13	92.88
9	0.05	0.53	1.19	-	6.07	88.83
10	0.15	0.62	1.18	-	6.07	88.83
11	0.23	0.68	1.18	-	6.03	86.45
12	0.29	0.66	1.20	-	6.03	86.45
13	0.30	0.65	1.24	-	6.02	85.86
14	0.27	0.61	1.27	-	6.00	84.67
15	0.21	0.57	1.31	-	5.97	82.89
16	0.13	0.48	1.30	-		
17	0.05	0.42	1.28	-		

DL=-0.43m

DL=-0.054m

DL=0.19m

DL=0.529m

AVERAGE ELEVATION OF RIVER-BED

NO.	X (km)	June 15, 1994		June 20, 1994		Average	
		Z (m.MSL)	Lowest Z (m.MSL)	Z (m.MSL)	Lowest Z (m.MSL)	Z (m.MSL)	Lowest Z (m.MSL)
1	Kalutara I. 15.44	-2.71		-2.24		-2.47	
2	15.98	-10.71		-9.42		-10.07	
3	16.61	-2.51		-5.41		-3.96	
4	17.34	-1.91		-1.88		-1.90	
5	18.39	-1.31		-2.35		-1.83	
6	19.95	-4.41		-2.01	-3.61	-3.21	-3.61
7	20.41	-0.71		-0.80	-1.20	-0.75	-1.20
8	20.87	-1.52		-0.98		-1.25	
9	21.30	-2.91		-2.86		-2.89	
10	21.87	-8.31		-6.35		-7.33	
11	22.18	-3.81		-2.04		-2.92	
12	22.75	-1.41	-2.01	-1.71		-1.56	-2.01
13	23.14	-1.51		-1.30		-1.41	
14	23.89	-3.01	-3.51	-2.88		-2.95	-3.51
15	24.05	-1.01	-1.91	-1.18		-1.09	-1.91
16	Intake Sit 24.47	-1.51	-3.71	-1.65	-3.15	-1.58	-3.43
17	25.29	-1.51	-2.51	-1.83		-1.67	-2.51
18	Kuda G. 26.00	-6.01	-6.01	-7.01		-6.51	-6.01
19	26.16	-0.70	-1.30	-0.59		-0.65	-1.30
20	Drop 27.14	-1.49	-3.29	-1.56		-1.53	-3.29

LONGITUDINAL PROFILE OF KALU GANGA

LONGITUDINAL PROFILE OF RIVER BED

X (km)	Z (m.MSL)	B (m)	Bnk (m.MSL)	HL (m)	Lowest Z (m.MSL)	X (km)	Z (m.MSL)	avg-Z (m.MSL)	dx (km)	avgZ*dx	Avg-Z (m.MSL)
-2.57	-3.62	317.0	1.20	4.82		-2.57	-3.62				
-1.59	-3.84	313.5	1.20	5.04		-1.59	-3.84	-3.72846	0.98	-3.65389	-3.72846
-0.35	-3.41	433.1	1.20	4.61		-0.35	-3.41	-3.62592	1.24	-4.49614	-3.67118
0.00	-3.66	563.9	4.43	8.09		0.00	-3.66	-3.53542	0.35	-1.2374	-3.6527
1.56	-3.84	276.7	1.12	4.97		1.56	-3.84	-3.75066	1.56	-5.85103	-3.6897
3.24	-2.99	172.8	2.34	5.33		3.24	-2.99	-3.41652	1.68	-5.73975	-3.61071
4.77	-2.49	114.5	2.12	4.61		4.77	-2.49	-2.73999	1.53	-4.19218	-3.42921
5.79	-6.18	196.4	2.31	8.49		5.79	-6.18	-4.33513	1.02	-4.42184	-3.53974
7.44	-1.43	146.0	1.96	3.40		7.44	-1.43	-3.80642	1.65	-6.2806	-3.5837
8.51	-4.27	123.7	1.92	6.19		8.51	-4.27	-2.85092	1.07	-3.05049	-3.51293
9.87	-7.72	138.6	2.74	10.45		9.87	-7.72	-5.99284	1.36	-8.15027	-3.78405
11.37	-3.60	144.8	2.59	6.19		11.37	-3.60	-5.66001	1.5	-8.49002	-3.96591
13.30	-8.24	130.5	2.92	11.16		13.30	-8.24	-5.92333	1.93	-11.432	-4.22153
14.23	-9.98	97.9	3.04	13.02		14.23	-9.98	-9.11071	0.93	-8.47296	-4.49218
15.44	-2.47	99.3	3.79	6.26		15.44	-2.47	-6.22404	1.21	-7.53109	-4.69853
15.98	-10.07	89.1	3.63	13.70		15.98	-10.07	-6.27	0.54	-3.3858	-4.6569
16.61	-3.96	100.3	3.95	7.91		16.61	-3.96	-7.015	0.63	-4.41945	-4.73435
17.34	-1.90	116.3	3.90	5.80		17.34	-1.90	-2.93	0.73	-2.1389	-4.6882
18.39	-1.83	123.2	4.17	6.00		18.39	-1.83	-1.865	1.05	-1.95825	-4.52777
19.95	-3.21	77.6	4.20	7.41	-3.61	19.95	-3.21	-2.52	1.56	-3.9312	-4.38869
20.41	-0.75	94.2	4.40	5.15	-1.20	20.41	-0.75	-1.98	0.46	-0.9108	-4.34047
20.87	-1.25	114.6	4.58	5.83		20.87	-1.25	-1	0.46	-0.46	-4.27492
21.30	-2.89	116.6	4.79	7.68		21.30	-2.89	-2.07	0.43	-0.8901	-4.2352
21.87	-7.33	109.4	5.24	12.57		21.87	-7.33	-5.11	0.57	-4.13642	
22.18	-2.92	106.6	5.15	8.07		22.18	-2.92	-5.125	0.31	-1.58875	-4.1488
22.75	-1.56	103.0	4.94	6.50	-2.01	22.75	-1.56	-2.24	0.57	-1.2768	-4.10583
23.14	-1.41	105.8	5.14	6.55		23.14	-1.41	-1.485	0.39	-0.57915	-4.06808
23.89	-2.95	129.6	5.48	8.43	-3.51	23.89	-2.95	-2.18	0.75	-1.635	-4.01262
24.05	-1.09	130.9	5.58	6.67	-1.91	24.05	-1.09	-2.02	0.16	-0.3232	-4.00064
24.47	-1.58	112.2	5.60	7.18	-3.43	24.47	-1.58	-1.335	0.42	-0.5607	-3.95924
25.29	-1.67	85.0	5.38	7.05	-2.51	25.29	-1.67	-1.625	0.82	-1.3325	-3.89053
26.00	-6.51	76.0	6.52	13.03	-6.01	26.00	-6.51	-4.09	0.71	-2.9039	-3.89549

RIVER WIDTH OF KALU GANGA

X (km)	dX (m)	acc.X (m)	Width (m)	dA (m ²)	mean W (m)
-2.6	0.0	0.0	317.0	0.0	
-2.0	570.0	570.0	399.2	204117.0	358.1
-1.0	1000.0	1570.0	190.1	294650.0	317.7
0.0	1000.0	2570.0	563.9	377000.0	340.8
1.0	1000.0	3570.0	354.8	459350.0	374.0
2.0	1000.0	4570.0	215.4	285100.0	354.5
3.0	1000.0	5570.0	177.4	196400.0	326.1
4.0	1000.0	6570.0	158.4	167900.0	302.1
5.0	1000.0	7570.0	101.4	129900.0	279.3
6.0	1000.0	8570.0	221.7	161550.0	265.6
7.0	1000.0	9570.0	171.1	196400.0	258.3
8.0	1000.0	10570.0	114.0	142550.0	247.4
9.0	1000.0	11570.0	133.1	123550.0	236.7
10.0	1000.0	12570.0	139.4	136250.0	228.7
11.0	1000.0	13570.0	133.1	136250.0	221.9
12.0	1000.0	14570.0	164.7	148900.0	216.9
13.0	1000.0	15570.0	145.7	155200.0	212.9
14.0	1000.0	16570.0	95.0	120350.0	207.3
15.0	1000.0	17570.0	107.7	101350.0	201.3
16.0	1000.0	18570.0	88.7	98200.0	195.7
17.0	1000.0	19570.0	107.7	98200.0	190.8
18.0	1000.0	20570.0	133.1	120400.0	187.3
19.0	1000.0	21570.0	107.7	120400.0	184.2
20.0	1000.0	22570.0	78.0	91850.0	180.1
21.0	1000.0	23570.0	120.4	98200.0	176.7
22.0	1000.0	24570.0	107.7	114050.0	174.1
23.0	1000.0	25570.0	101.4	104550.0	171.4
24.0	1000.0	26570.0	133.1	117250.0	169.4
25.0	1000.0	27570.0	88.7	110900.0	167.2
26.0	1000.0	28570.0	78.0	82350.0	164.3

CALCULATION OF LONGITUDINAL PROFILE OF SALINITY WEDGE SURFACE ELEVATION
unit:M.msl

Distance (km)	High Tide			Low Tide		
	Case-1	Case-2	Case-3	Case-1	Case-2	Case-3
-2.57	0.02	0.051	0.085	-0.48	-0.449	-0.415
-1.57	-0.269	-0.193	-0.116	-0.808	-0.727	-0.643
-0.57	-0.393	-0.298	-0.201	-0.951	-0.847	-0.741
0.43	-0.49	-0.379	-0.268	-1.065	-0.941	-0.817
1.43	-0.574	-0.449	-0.324	-1.162	-1.022	-0.882
2.43	-0.648	-0.512	-0.374	-1.251	-1.095	-0.941
3.43	-0.717	-0.569	-0.42	-1.332	-1.162	-0.994
4.43	-0.781	-0.622	-0.463	-1.409	-1.225	-1.044
5.43	-0.842	-0.672	-0.503	-1.482	-1.284	-1.091
6.43	-0.899	-0.719	-0.541	-1.552	-1.34	-1.135
7.43	-0.954	-0.764	-0.577	-1.619	-1.395	-1.178
8.43	-1.008	-0.808	-0.611	-1.685	-1.447	-1.219
9.43	-1.059	-0.85	-0.645	-1.749	-1.498	-1.258
10.43	-1.109	-0.89	-0.677	-1.811	-1.547	-1.296
11.43	-1.158	-0.93	-0.708	-1.873	-1.596	-1.334
12.43	-1.205	-0.968	-0.738	-1.934	-1.643	-1.37
13.43	-1.252	-1.006	-0.768	-1.994	-1.689	-1.405
14.43	-1.298	-1.042	-0.796	-2.054	-1.735	-1.44
15.43	-1.343	-1.078	-0.824	-2.113	-1.78	-1.474
16.43	-1.387	-1.113	-0.852	-2.172	-1.825	-1.508
17.43	-1.43	-1.148	-0.879	-2.231	-1.869	-1.54
18.43	-1.474	-1.182	-0.905	-2.291	-1.912	-1.573
19.43	-1.516	-1.216	-0.931	-2.35	-1.956	-1.605
20.43	-1.559	-1.249	-0.957	-2.41	-1.999	-1.636
21.43	-1.6	-1.282	-0.982	-2.471	-2.041	-1.667
22.43	-1.642	-1.314	-1.007	-2.532	-2.084	-1.698
23.43	-1.683	-1.346	-1.031	-2.594	-2.126	-1.729
24.43	-1.724	-1.378	-1.055	-2.658	-2.169	-1.759
25.43	-1.765	-1.409	-1.079	-2.722	-2.211	-1.789
26.43	-1.806	-1.44	-1.102	-2.789	-2.254	-1.819

Casw-1 : Q=14.4cu.m/s Case-2 : Q=12.2cu.m/s Case-3 : Q=10.0cu.m/s

RIVER WIDTH OF KALU GANGA

