CHAPTER 8

ECONOMIC EVALUATION

8.1 Annual Cost and Energy Cost 143

8.2 Annual Benefit 144

8.3 Reevaluation of Other Hydroelectric Power Projects 145

8.3.1 San Juan Project 145

8.3.2 Orianoja Project 146

8.3.3 Carhuaquero Project 147

8.4 Priority of Yangas Project 148

TABLES

Table 8.1.1 Annual Benefit Ratio

Table 8.1.2 Outline of Alternative Schemes

Table 8.1.3 Economic Evaluation (Summary)

CHAPTER 8 ECONOMIC EVALUATION

In this chapter, energy cost of the Yangas Project at Michiquillay Mines is firstly estimated. Then, the ratios of annual benefits (B) of the Project based on the power generation cost of an alternative thermal power station to the annual costs (C) based on the construction cost of the Project is calculated, and the economic priority of the Yangas Project among the three hydroelectric power development projects within the area is examined.

8.1 Annual Cost and Energy Cost

Obtaining the equalized annual cost of the Yangas Project for its service life assuming 50 years for the power generating facilities, taking residual value of zero, 1% of total construction cost for operation and maintenance expenses such as for repairs, personnel, and general administration, and 10% as the interest rate, the ratio of annual expenses to the total construction cost of power generating facilities becomes 11.1%.

Multiplying this ratio by the construction cost of 2,873 million S/o for power generation facilities obtained in 7.7, the annual cost (C) at the sending end becomes 319 million S/o.

Meanwhile, the cost ratio of power transmission facilities assuming service life of 30 years and interest rate of 10% is 12.9%. Multiplying this by the construction cost of 115 million S/o for power transmission facilities obtained in 7.7, the annual cost becomes 15 million S/o.

Totalling the above annual costs for power generation and transmission facilities, the total annual cost at the receiving end will be 334 million S/o, and dividing this by the salable energy of 317 GWH obtained in 7.4, the energy cost of

the Yangas Project at the receiving end at Michiquillay will be S/o 1.05/KWH.

8.2 Annual Benefit

The economic evaluations of a hydroelectric power development schemes have to be made separately both for benefit by KW and benefit by KWH based on the annual cost of an alternative thermal power station.

The alternative thermal power considered in this case is a plant of 100 MW exclusively burning heavy oil as indicated in Table 8-1. The construction cost and annual expenses were calculated as of July 1974 with interest rate of 10%.

For fuel cost, US$50/kl (= S/o 2,140/kl) was used for the reasons given below.

In general, in making an economic evaluation of a project, the world market price of heavy oil must be used instead of a political price.

In April to August of 1974, export prices of Grade C heavy oil at Los Angeles and New York were fairly high ranging between US$10.75 and 11.63 per barrel (average $70.38/kl), but in September 1973 the price was US$4.55/bbl (US$28.62/kl). Since it is extremely difficult to forecast the international future trend of heavy oil prices, the average for the above US$70.38/kl and US$28.62/kl, or US$50/kl was adopted.

Applying above criteria, the annual benefits were found to be S/o 2.360/KW for benefit by kilowatt and S/o 0.661/KWH for benefit by KWH, as indicated in Table 8-1.

8.3 Reevaluation of Other Hydroelectric Power Projects

In the prefeasibility study of the Yangas Project, it is necessary to apply not only economic study, but also comparison with other hydroelectric power schemes which are conceivable in the northern region of Peru.

Therefore, the three projects which have been studied in various reports to date were selected and reevaluated under the same criteria as for the Yangas Project. However, the reevaluations were made only for construction costs adjustments, annual cost ratios and benefits, while particulars of the projects such as plant capacity and dam hight etc. were left as originally planned.

Regarding construction costs, they were recalculated as of July 1974 applying the criteria used for the computation of construction cost of the Yangas Project.

The three projects taken up for the comparison studies are San Juan, Crisnejas and Carhuaquero. The locations are indicated in the key map and the particulars of the projects are shown in Table 8-2.

8.3.1 San Juan Project

This project was investigated as a part of the "Rio Jequetepeque Irrigation Project" by Salzgitter Industriebau Gesellschaft in 1968, and was reviewed later in 1972 by MOT LIMA Report. Following this, in 1973, Salzgitter prepared a feasibility report on the agricultual sector as the Jequetepeque-Zaña Project in which a new San Juan Hydroelectric Power Development Project is incorporated.

This scheme is for a dam to be built on the Namora River, a tributary of the Cajamarca River, combining this regulated runoff with water from the Cajamarca River mainstream, crossing the Andes Mountain Range by a waterway tunnel and discharging the water to Jequetepeque on the Pacific Ocean side for

irrigation purpose for approximately 70,000 ha of the downstream dry area and also for power generation purpose.

Part of the water of Polloc Reservoir to be provided on the Namora River would be used as industrial water for the Michiquillay Mines.

With respect to the present plan for the San Juan Project, it is felt there will be a need to make further studies on the problem of geology at Polloc Dam, of the balance between water taken from the Namora River and the Cajamarca River, and of the optimum scale of power generation, etc., but for the purpose of comparison here the Salzgitter proposal (1973) which is at present the most recent one is used.

As for the allocation of the construction cost, the common costs for power generation and irrigation purposes were separated proportionally to each surplus benefit, and the amount allocated to the irrigation purpose and specific cost for irrigation were deducted from the total construction cost.

8.3.2 Crisnejas Project

This project was studied and reported by Hydrotechnic Corporation in 1965 at a prefeasibility level along with the feasibility study for the Chonta Project. Later, the scheme was slightly altered by MOT LIMA Report.

This project is located at a site a little downstream where the Cajamarca River and Condebamba River join to form the Crisnejas River, which is approximately 50 km southwest of the Michiquillay Mines. This damsite has a vast drainage area and is favored in terms of geology and storage efficiency, while by utilizing the head gained from the rapid stream of riverbed gradient of 1/10 immediately downstream of the dam, it is possible to install extremely good-quality and less expensive electric power of 80 to 150 MW.

There is also an alternative plan proposed for this site called the Crisnejas-Chicama Project by which water is to be diverted to the Chicama River on the Pacific Ocean side to irrigation and power generation purposes. But this alternative contains a construction of an extremely long diversion tunnel of as much as 27.6 km, the economics as a power development scheme only are lower than the original.

Furthermore, in case the San Juan Project were to be carried out, since some water is to be diverted to the Pacific Ocean side from the Atlantic Ocean side, the inflow to the Crisnejas site is to be reduced that amount, but according to the results of rough calculations made, this effect to the Crisnejas is very small and it is not necessary to modify the original scheme. This is because the reservoir at Crisnejas has an ample storage capacity of 900 million cu. m with a dam of 80-m height, and with annual runoff at the damsite of 1,450 million cu. m. Even if approximately 20% (278 million cu. m according to the Report) were to be deducted for diversion to the Pacific Ocean side for the San Juan Project, the remaining water of approximately 1,000 million cu. m which is considered as sufficient for power generation could be annually regulated and used effectively.

There is still more head remaining at the down stream of the power plant site presently planned in the Crisnejas Project between Marañon River and it will be possible the scale of development is readily enlarged to around 150 MW by a slight relocation of the power plant toward the down stream. However, in comparison here with the Yangas Project, the present plan for 81 MW is used without alteration.

8.3.3 Carhuaquero Project

This project was proposed as a part of the Tinajones Irrigation Project Studied by Salzgitter Industriebau Gesellschaft in 1968, and later, in 1972, it was

reexamined and slightly modified by MOT LIMA Report.

This project consists of a reservoir which will be constructed on the Llaucano River on the Amazonas side and connecting this reservoir with the Conchano River and Chotano River from where diversion work is to be made to the Chancay River on the Pacific Ocean side by a waterway tunnel (already completed) through the Andes Mountain Range, after which power generation is to be carried out at the Carhuaquero site with a regulating pond and utilization of a head of approximately 460 m. The water used for power generation is to be stored in The Tinajones Reservoir (already completed) to be used for irrigation of the downstream area.

The feature of the Carhuaquero Project is that rivers on the Amazonas side are to be connected by long waterways for diversion to the Pacific Ocean side and the construction period would be comparatively long. Therefore, although it is considered there might be some alterations necessary in the scheme depending on detailed studies of the waterways and construction of the reservoir on the Llaucano River which was added by MOT LIMA Report, the original plan was adopted without alteration for the present study.

Furthermore, allocation to the irrigation project was estimated on the same basis as for the San Juan Project.

8.4 Priority of Yangas Project

On comparing the economics of the five projects consisting of the three hydroelectric power development projects considered in the preceding section and the 50-MW and 100-MW plans for the Yangas Project using the respective benefit-cost ratios (B/C) at sending ends, as shown in Table 8-3, the economics were good in the order of Crisnejas, Carhuaquero, San Juan, Yangas (100 MW) and Yangas (50 MW).

In effect, the economics of the Yangas Project site are inferior to all of the other three hydro sites which are presently being contemplated.

The reasons of disappearing the advantages of the Yangas site which have been understood up to the present are that as a result of the recent topographic mapping, reconnaissances and desk studies, it was found (1) that the damsite in the past proposal was unsuitable from both the aspects of geology and topography, and the newly substituted damsite does not possess an economic advantage, (2) that with the presently conceivable flow conditions a reservoir of larger regulating capacity is required, and (3) that the waterway efficiency (ratio of waterway length to head) is not as good as in the past proposal.

However, as is clear from the economic study, the Yangas site is a little more advantageous when compared to a thermal power plant, so there remains some possibility of constructing as a peak load power station making use of the characteristics of the site.

Table 8-1 Annual Benefit Ratio

1.	Alternative Thermal Plant	
	Plant Capacity	100 MW
	Construction Cost	2,140 x 10^6s/.
2.	Benefit per KW	
	Service Life	25 years
	Interest Rate	10 %
	Benefit per KW	2,360 s/. /KW
3.	Benefit per KWH	
	1) Operating Cost	
	Maintenance, Personal and Administration Cost	69.6 x 10^6s/.
	Load Factor	70 %
	Annual Energy Production	613 Gwh
	Operating Cost per KWH	0.113 s/. /KWH
	2) Fuel Cost	
	Heavy Oil Unit Cost (50 U. S. $/kl)	2,140 s/. /kl
	Station Service Use	6 %
	Thermal Efficiency at Sending End	34.3 %
	Fuel Cost per KWH	0.548 s/. /KWH
	3) Total	
	Benefit per KWH	0.661 s/. /KWH

Table 8-2 Outline of Alternative Schemes

Parameter	Unit	Crisnejas*	Carhuaquero*	San Juan**	Yangas(II)	Yangas(I)
Installed Capacity	MW	81	123	60	100	50
Energy Production	GWH	425	645	263	446	351
Area of Watershed	sq.km	4,150	3,325	1,218	637	637
Maximum Discharge	cu.m/sec	52	34.5	10	19	9.5
Net Head	m	195	449	678	620	620
Length of Derivation	m	-	16,000	14,800	-	-
Length of Power Conduction	m	3,500	13,200	5,700	16,460	16,460
Storage Net Volume	10^6cu.m	800	100	120	36	36

* "Electric Power Supply for the Michiquillay Mining Complex and its Influence Area" by Motor Columbus Lima (MOTLIMA) S. A. 1972.

** "Proyecto Jequetepeque-Zaña. Estudio de Factibilidad Técnica y Económica, TOMO III" by Salzgitter Industriebau GMBH, 1973..

Table 8-3 Economic Evaluation (Summary)

Project		Crisnejas	Carhuaquero	San Juan	Yangas(II)	Yangas(I)
Capacity	(MW)	81	123	60	100	50
Energy	(GWH)	425	645	263	440	346
Direct Cost	(10^6s/.)	1,522	2,888	1,335	2,703	2,176
Eng. Adm. Cost[1]	(")	152	289	134	270	218
Total	(")	1,674	3,177	1,471	2,973	2,394
Interests [2]	(")	335	890	294	595	479
Irrigation Contribution	(")	0	-344	-119	0	0
Plant Cost	(")	2,009	3,723	1,646	3,568	2,873
C [3]	(")	223	413	183	396	319
B_1 [4]	(")	191	290	142	236	118
B_2 [5]	(")	281	426	174	291	229
$B = B_1 + B_2$	(")	472	716	316	527	347
B/C		2.12	1.73	1.73	1.33	1.09
Unit Generation Cost [6]	(s/./KWH)	0.52	0.64	0.70	0.90	0.92

Note: 1) Engineering and Administration Cost
2) Interests during Construction
3) Annual Cost (Annual Cost Ratio = 0.111)
4) Benefit by Capacity (2,360 s/./KW)
5) Benefit by Energy (0.661 s/./KWH)
6) Annual Cost / Energy (at Sending End)

CHAPTER 9

FUTURE INVESTIGATIONS

TABLES

Table 9.2.1 Proposed Hydrologic Observatory Stations

CHAPTER 9 FUTURE INVESTIGATIONS

This hydroelectric power development project, as described previously, is not necessarily promising when compared with other hydroelectric projects, and consequently, it is thought there is little possibility of immediately moving on to a feasibility study. However, in the event of starting such a study in the future, it would be absolutely indispensable to have hydrologic data for a minimum of 10 years.

Therefore, with the purpose of obtaining hydrologic data for a long term, it is proposed that for the time being one runoff gaging station and two precipitation observation stations as indicated in Table 9-1 be installed. As for the precise locations of these stations, it is necessary for them to be decided carefully on consideration of the topographies of sites, convenience of transportation, and the nationwide meteorological and hydrologic observation network program.

Furthermore, at existing observation stations, in particular at the station in Celendín, it is desirable for observations to be continued increasing the items of observation and improving accuracy.

And, in case of carrying out a feasibility study, it will be necessary, prior to the study, to have hydrologic data from a large number of locations over a period of ten years, to have prepared a more detailed topographic map than the present 1/20,000-scale map, and to have available the results of geologic surveys by such means as boring and side adits.

Table 9-1 Proposed Hydrologic Observatory Stations

Item	Rainfall Gaging Station	Runoff Gaging Station
Number of Station	2	1
Location	EL. 3,000 m EL. 2,000 m	Proposed Dam Site
Record	Hourly Data (Automatic Recording)	Hourly Data (Automatic Recording)

APPENDIX A

STUDY OF TRANSMISSION CAPACITY (POWER RECEIVED AT CHIMBOTE SIDE) OF LIMA-CHIMBOTE TRANSMISSION LINE

FIGURES

Fig. A - 1 P-Q Characteristic Curve at Receiving End (Chimbote) for Lima-Chimbote Line

Fig. A - 2 Impedance Map (1982) for Study State Stability

APPENDIX A

STUDY OF TRANSMISSION CAPACITY (POWER RECEIVED AT CHIMBOTE SIDE) OF LIMA-CHIMBOTE TRANSMISSION LINE

The transmission capacity of the Lima-Chimbote Transmission Line while it is single-circuit will be decided by the steady state stability and this has been obtained by electronic computer calculations. The study was made with the system in 1982 considered as representative and the Central Power System of Lima was simulated by a single unit of an equivalent generator. The supply capacity of the system in the northern region was assumed to consist of Cañon del Pato 125 MW, Chimbote Gas Turbine 20 MW x 2 and Trujillo Gas Turbine 20 MW x 1, while El Chorro was not included. It was assumed there would be synchronous motors at Michiquillay. The results of the study are shown in Fig. A-1.

Assuming that maintenance of voltage in the Chimbote System will be adequately performed, the limit to power received at the Chimbote side is calculated to be around 150 MW, but because the required reactive power at the Chimbote receiving end will become fairly large, while it will naturally be necessary to consider differing conditions from the above in the composition of the Santa Power System and its operation of power sources, it is desirable to consider a transmission capacity in operation of about 80% of the abovementioned. Therefore, for the purposes of operation, the transmission capacity of the Lima-Chimbote Transmission Line (while single-circuit) will be 120 MW.

Fig. A-1 P-Q Characteristic Curve at Receiving-End (Chimbote) of Lima-Chimbote Line

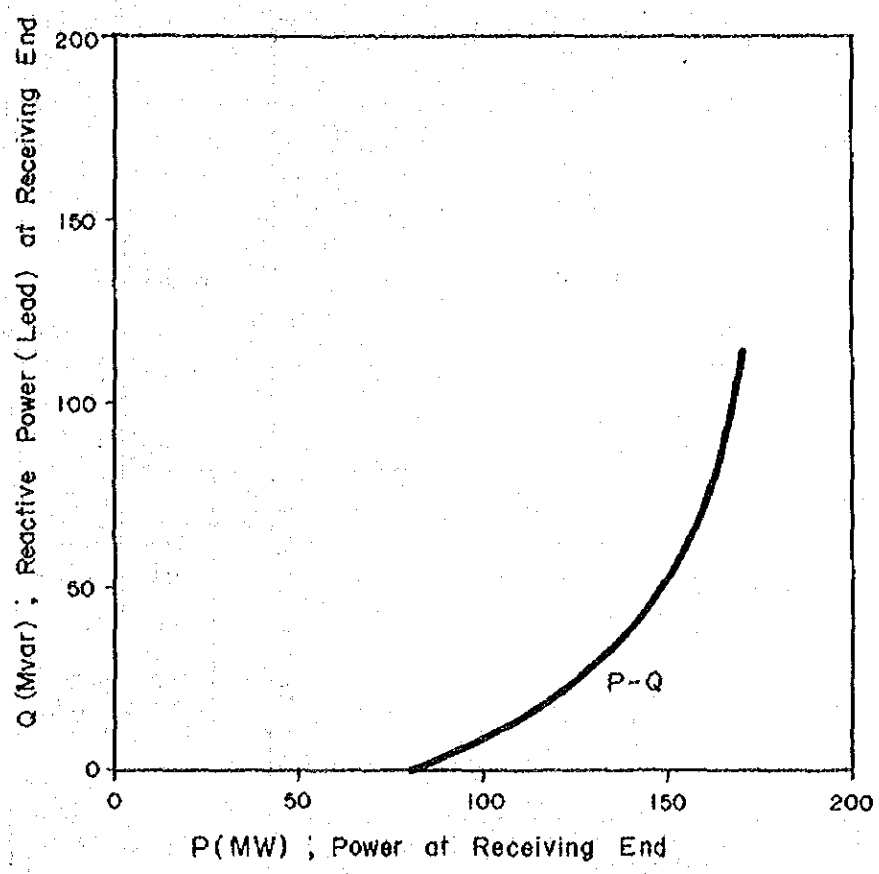
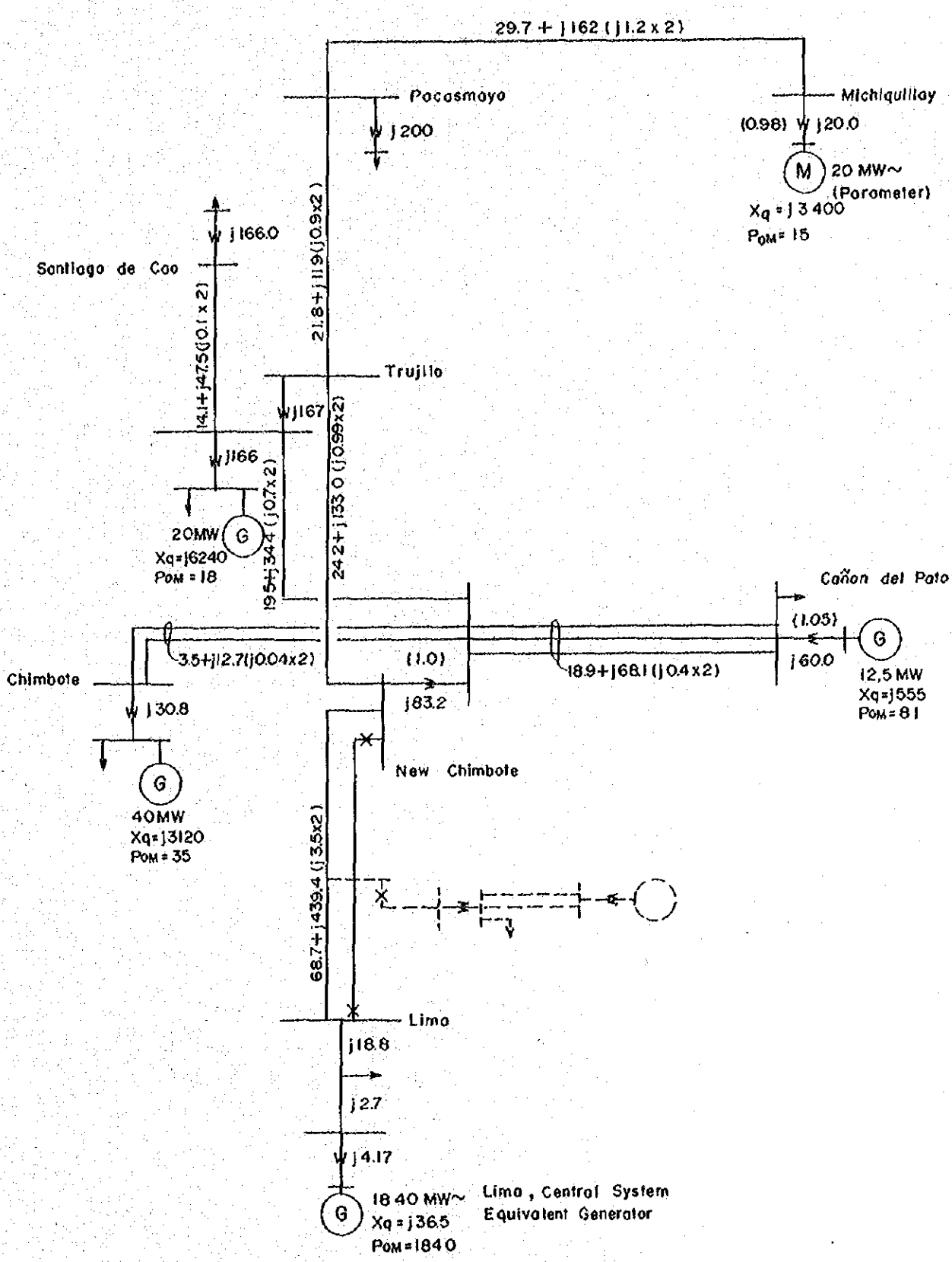


Fig. A-2 Impedance Map (1982) for Study State Stability

Base 1 000 MVA , 220kv.
% Value



APPENDIX B

HYDROLOGIC DATA

Daily Runoff STATION 1 Llaucano-Derivación

RIVER, IN THE BASIN OF ELEVATION 2,570 m UNIT cu. m/sec-day YEAR 1962 1963

DATE	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	DATE
1	-	-	-	-	-	6.250	14.407	8.180	4.189	1.500	0.894	0.650	1
2	-	-	-	-	-	7.100	13.025	7.495	3.200	1.500	0.954	0.610	2
3	-	-	-	-	-	7.900	13.976	6.700	3.500	1.469	0.828	0.610	3
4	-	-	-	-	-	7.100	14.022	20.500	8.200	1.432	0.877	0.610	4
5	-	-	-	-	-	7.600	13.000	27.000	9.000	1.437	0.827	0.668	5
6	-	-	-	-	-	7.900	9.457	36.000	6.900	1.350	0.828	0.603	6
7	-	-	-	-	-	8.450	8.543	50.000	6.300	1.403	0.828	0.655	7
8	-	-	-	-	-	6.848	9.784	33.000	5.500	1.403	0.765	0.655	8
9	-	-	-	-	-	6.003	14.580	30.000	4.700	1.300	0.663	0.658	9
10	-	-	-	-	-	4.987	26.625	20.500	4.400	1.272	0.614	0.658	10
11	-	-	-	-	-	5.062	31.668	15.000	4.300	1.288	0.614	0.658	11
12	-	-	-	-	-	6.185	24.813	14.013	4.000	1.281	0.845	0.583	12
13	-	-	-	-	-	4.432	13.834	10.500	3.700	1.250	0.845	0.683	13
14	-	-	-	-	-	3.578	13.632	8.225	3.400	1.274	0.919	0.687	14
15	-	-	-	-	-	2.864	10.493	8.300	3.200	1.250	0.919	0.610	15
16	-	-	-	-	2.680	2.768	11.325	7.500	2.800	1.300	0.877	0.610	16
17	-	-	-	-	2.142	2.477	8.888	6.200	2.800	1.234	0.791	0.655	17
18	-	-	-	-	2.015	2.128	8.447	6.800	2.700	1.382	0.791	0.655	18
19	-	-	-	-	1.758	2.624	12.001	6.300	2.200	1.255	0.774	0.655	19
20	-	-	-	-	2.623	3.128	12.345	6.900	2.400	1.200	0.614	0.765	20
21	-	-	-	-	1.490	3.870	12.486	7.000	2.300	1.177	0.614	0.950	21
22	-	-	-	-	3.793	3.250	11.826	6.100	2.200	1.200	0.642	0.919	22
23	-	-	-	-	3.302	2.922	16.720	5.600	1.900	1.052	0.656	0.765	23
24	-	-	-	-	3.301	3.221	16.591	5.200	1.900	1.052	0.674	0.674	24
25	-	-	-	-	3.387	2.752	19.614	4.700	1.900	0.907	0.674	0.674	25
26	-	-	-	-	3.771	22.054	15.312	4.700	1.900	0.905	0.655	0.674	26
27	-	-	-	-	5.614	11.085	13.710	4.150	1.850	0.867	0.655	0.674	27
28	-	-	-	-	7.407	15.552	10.865	4.150	2.100	0.867	0.600	0.663	28
29	-	-	-	-	6.902	-	11.475	3.300	1.850	0.800	0.643	0.663	29
30	-	-	-	-	7.483	-	9.348	4.200	1.850	0.800	0.676	0.625	30
31	-	-	-	-	5.945	-	8.315	-	1.600	-	0.676	0.625	31
Total						170.090	431.131	378.213	108.739	36.407	23.282	20.844	
Mean						6.075	13.907	12.607	3.508	1.213	0.751	0.672	

Annual Total ( )

Daily Runoff STATION 1 Llaucano-Derivación

RIVER, IN THE BASIN OF ELEVATION 2,570 m UNIT cu. m/sec-day YEAR 1963 1964

DATE	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	DATE
1	0.701	1.100	6.000	10.250	21.240	7.030	9.625	12.500	4.740	2.940	1.386	1.386	1
2	0.615	1.600	7.500	14.250	22.560	6.520	8.995	11.000	4.740	2.940	1.386	1.295	2
3	0.587	1.500	7.000	11.400	13.650	6.265	7.030	10.500	4.740	2.780	1.386	1.204	3
4	0.673	0.985	28.000	11.400	9.310	6.265	6.265	8.100	4.535	2.460	1.295	1.113	4
5	0.673	0.920	25.000	11.400	7.540	6.010	5.755	7.800	6.230	2.140	1.295	1.113	5
6	0.636	0.840	10.000	11.700	7.030	7.285	5.500	7.300	5.150	2.300	1.295	1.022	6
7	0.636	0.780	5.500	11.400	7.030	6.265	4.855	7.300	4.535	2.620	1.295	1.022	7
8	0.636	0.735	4.200	8.250	6.010	6.265	4.425	8.100	4.535	2.620	1.204	1.022	8
9	0.636	0.725	4.000	6.200	5.070	6.010	3.995	12.500	4.330	3.305	1.204	1.022	9
10	0.701	0.680	3.400	5.400	5.285	6.010	3.780	11.000	3.920	3.100	1.113	1.022	10
11	0.670	0.622	2.600	5.000	5.500	5.755	3.565	10.150	3.510	2.780	1.113	0.931	11
12	0.670	0.760	2.100	4.850	6.520	5.500	3.995	9.000	3.305	2.620	1.113	0.931	12
13	0.670	0.760	1.800	11.880	7.285	4.855	4.855	8.100	3.100	2.300	1.113	0.840	13
14	0.670	1.100	1.600	12.500	5.755	4.640	4.855	7.300	2.940	2.140	1.022	0.840	14
15	0.701	1.150	1.500	12.000	6.775	4.640	4.640	6.800	2.620	2.140	1.113	0.840	15
16	0.672	1.700	1.500	11.400	5.500	6.265	4.425	7.050	2.460	1.980	0.931	1.022	16
17	0.674	3.100	1.500	34.500	5.500	5.500	5.255	8.700	2.300	1.980	0.931	1.113	17
18	0.671	1.700	1.200	16.500	5.500	6.010	6.520	7.550	2.300	1.980	0.931	1.113	18
19	0.671	1.500	1.200	12.500	5.500	6.265	9.310	6.800	2.300	1.820	1.022	1.022	19
20	0.709	1.400	1.200	17.450	5.285	7.030	8.365	6.280	2.140	1.660	1.295	1.022	20
21	0.671	0.940	2.100	11.700	5.285	8.995	7.285	5.500	2.780	1.500	1.386	1.022	21
22	0.617	0.971	5.800	8.680	5.755	9.625	6.520	5.220	2.780	1.500	1.659	1.022	22
23	0.617	0.895	7.400	8.190	5.285	12.950	5.500	4.660	2.780	1.440	1.905	1.568	23
24	0.617	0.859	6.500	6.500	5.070	13.650	5.500	4.380	2.780	1.440	1.905	2.835	24
25	0.671	1.259	4.200	6.000	5.070	11.900	7.285	4.380	2.780	1.380	1.659	2.525	25
26	0.600	1.500	3.800	6.800	6.520	8.680	6.520	4.380	2.940	1.380	1.568	2.215	26
27	0.510	2.100	2.700	7.000	9.310	7.540	6.265	4.380	2.780	1.380	1.477	3.700	27
28	0.600	2.400	4.500	7.000	9.310	6.265	6.265	3.800	2.140	1.380	1.386	3.300	28
29	0.600	3.490	8.500	34.000	8.050	(5.500)	7.285	3.650	1.980	1.380	1.386	2.525	29
30	0.617	4.700	6.000	22.840	8.050	-	7.030	3.650	1.820	1.320	1.295	2.215	30
31	-	3.760	-	23.000	7.540	-	6.775	-	1.820	-	1.295	1.905	31
Total	119.392	46.513	168.300	381.940	239.090	205.490	188.270	217.830	101.810	62.705	40.364	45.727	
Mean	0.646	1.500	5.610	12.321	7.712	7.086	6.073	7.261	3.284	2.090	1.302	1.475	

Annual Total ( ) 1,717.431

Daily Runoff STATION 1 Llaucano-Derivación

RIVER, IN THE BASIN OF ELEVATION 2,570 m UNIT cu. m/sec-day YEAR 1964 1965

DATE	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	DATE
1	1.560	1.600	4.850	3.500	5.460	2.450	4.850	16.200	20.500	2.800	1.400	1.110	1
2	1.560	2.375	4.625	3.300	5.230	2.300	4.520	12.500	15.250	2.650	1.515	1.110	2
3	1.390	2.530	4.625	3.100	5.000	2.300	4.520	9.920	11.500	2.650	1.515	1.110	3
4	1.290	2.530	4.850	3.100	4.500	2.300	4.190	9.920	10.000	2.500	1.515	1.110	4
5	1.200	2.530	14.725	3.950	4.250	3.250	10.000	12.000	9.000	2.350	1.562	1.110	5
6	1.200	2.375	10.675	3.950	4.000	2.900	12.800	11.450	7.500	2.200	1.515	0.975	6
7	1.110	2.065	9.325	3.725	7.900	2.450	16.000	26.500	7.200	2.200	1.515	0.975	7
8	1.020	2.220	8.070	2.900	6.440	2.300	57.500	24.000	7.200	2.200	1.460	0.975	8
9	0.930	2.375	8.360	2.500	5.690	2.150	30.650	20.800	7.500	2.000	1.460	0.975	9
10	0.930	5.040	6.330	2.300	5.460	2.150	19.400	17.840	7.500	2.000	1.420	0.975	10
11	0.930	3.570	6.040	2.300	7.310	3.250	17.000	16.750	7.750	2.000	1.420	0.975	11
12	0.840	3.570	5.750	2.600	5.690	2.600	17.000	17.840	8.500	2.000	1.420	0.830	12
13	0.840	3.360	5.750	3.500	5.000	2.300	12.000	16.200	9.500	2.000	1.420	0.830	13
14	0.840	3.150	6.040	4.070	4.500	2.150	15.000	15.150	7.200	2.350	1.400	0.700	14
15	0.840	7.750	10.675	3.950	4.000	5.130	18.000	14.600	6.800	2.200	1.400	0.570	15
16	0.750	7.050	8.650	3.950	4.000	4.430	15.500	12.000	6.400	2.000	1.250	0.570	16
17	0.750	6.825	8.070	5.525	5.690	4.000	14.000	9.400	6.000	1.850	1.250	0.570	17
18	0.750	4.830	8.070	4.850	5.000	3.800	14.000	8.150	5.250	1.850	1.250	0.562	18
19	0.750	3.570	22.000	4.625	4.500	4.430	18.000	7.720	4.800	1.850	1.250	0.562	19
20	0.750	2.840	25.000	4.400	4.000	4.430	17.500	6.880	4.600	1.850	1.390	0.562	20
21	0.750	2.685	15.400	4.175	3.330	9.250	17.500	6.450	4.200	1.450	1.390	0.700	21
22	0.750	2.220	13.375	3.950	3.190	8.200	15.000	5.620	4.200	1.600	1.250	0.700	22
23	1.020	1.755	10.000	3.725	3.050	8.550	12.000	5.200	3.900	1.600	1.250	0.690	23
24	1.020	1.755	7.780	3.950	2.940	11.000	9.650	5.200	3.700	1.600	1.250	0.690	24
25	1.290	2.995	7.200	4.625	2.940	8.930	8.600	6.050	3.550	1.600	1.250	0.690	25
26	1.110	2.840	5.750	4.625	3.330	7.530	7.900	10.400	3.350	1.450	1.110	0.700	26
27	1.380	2.685	5.075	14.000	4.000	6.550	11.600	8.980	3.200	1.450	1.110	0.700	27
28	1.470	3.570	4.400	11.650	3.190	5.950	21.800	8.980	3.550	1.450	1.110	0.688	28
29	1.560	4.410	3.950	10.050	2.830	-	27.000	8.550	3.350	1.450	1.110	0.688	29
30	1.560	4.410	3.725	8.900	2.830	-	18.000	8.550	3.000	1.300	1.110	0.688	30
31	-	4.830	-	7.500	2.720	-	16.500	-	3.000	-	1.110	0.688	31
Total	32.040	106.310	259.135	149.245	137.970	127.030	487.980	359.800	208.950	58.450	41.377	24.778	
Mean	1.068	3.429	8.638	4.814	4.451	4.537	15.741	11.993	6.740	1.948	1.335	0.799	

Annual Total ( ) 1,993.065

Daily Runoff STATION 1 Llaucano-Derivación

RIVER, IN THE BASIN OF ELEVATION 2,570 m UNIT cu. m/sec-day YEAR 1965 1966

DATE	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	DATE
1	0.700	1.730	4.300	3.600	39.500	4.540	2.900	2.400	4.250	2.250	1.400	0.810	1
2	0.700	1.730	3.300	3.100	32.500	3.910	4.750	2.400	6.200	2.156	1.888	0.810	2
3	0.750	1.600	3.300	3.200	20.500	3.700	5.830	3.480	5.900	2.068	1.700	1.050	3
4	0.750	1.600	3.200	3.100	12.000	5.290	5.830	2.940	5.300	1.980	1.400	0.930	4
5	0.810	1.440	4.500	3.100	11.000	15.450	4.750	4.000	5.600	1.796	1.204	0.810	5
6	0.700	1.420	8.500	3.100	11.000	9.540	4.120	4.000	4.750	1.700	1.204	0.810	6
7	1.000	1.200	4.900	7.000	10.000	7.300	3.910	2.400	4.750	1.700	1.112	0.930	7
8	1.100	1.250	4.500	6.100	10.000	5.290	3.910	2.400	2.940	1.700	1.204	0.810	8
9	1.400	1.300	12.000	4.500	9.000	5.560	5.560	8.300	3.210	1.600	1.020	0.810	9
10	1.400	1.300	12.400	4.100	14.000	4.750	5.830	8.000	3.480	1.600	0.952	0.810	10
11	1.600	1.300	9.600	3.050	16.000	5.020	5.020	7.400	3.210	1.700	0.952	0.720	11
12	1.300	1.730	11.400	2.800	13.000	3.910	3.910	6.500	4.750	1.700	0.952	0.720	12
13	1.140	2.900	9.300	2.600	11.500	3.540	3.380	5.300	2.940	1.600	0.952	0.660	13
14	1.100	3.150	8.100	2.600	10.500	3.540	3.220	5.600	2.940	1.500	1.020	0.720	14
15	1.200	9.650	8.500	4.000	8.500	3.380	2.900	5.900	3.210	1.400	1.020	0.720	15
16	1.100	9.700	10.400	4.000	8.000	3.380	2.900	5.000	5.300	1.300	1.020	0.720	16
17	1.050	9.500	30.000	3.600	7.000	5.830	2.740	5.000	5.300	1.300	1.020	0.720	17
18	1.050	7.300	34.900	4.500	5.500	5.290	2.900	4.000	3.750	1.300	1.020	0.700	18
19	1.100	6.200	22.000	8.100	5.000	4.750	3.540	4.000	3.750	1.204	0.952	0.700	19
20	1.100	5.500	19.100	5.300	4.800	4.750	4.540	5.600	2.350	1.204	0.884	0.700	20
21	0.900	5.000	16.500	20.200	4.500	5.290	8.580	5.600	2.940	1.112	0.820	0.700	21
22	1.000	15.000	16.000	19.500	19.000	6.500	6.900	4.250	2.670	1.112	1.112	0.720	22
23	1.000	24.000	12.800	13.300	12.500	6.500	5.560	3.750	4.000	1.112	1.020	0.720	23
24	1.000	18.200	9.600	12.800	12.000	3.540	5.020	3.480	3.480	1.112	0.952	0.720	24
25	1.000	12.000	8.100	13.300	12.500	3.380	4.120	3.750	3.750	1.400	1.112	0.720	25
26	1.100	11.300	7.100	11.400	10.500	3.220	3.540	4.000	2.670	1.400	1.112	0.660	26
27	1.440	11.750	5.300	9.200	3.000	3.220	3.380	3.750	3.480	1.300	1.020	0.720	27
28	1.420	13.500	3.900	7.700	7.200	3.220	3.220	3.480	2.940	1.300	0.952	0.660	28
29	1.420	8.000	3.800	6.100	6.000	-	3.060	3.210	2.670	1.400	0.884	0.600	29
30	1.300	7.500	3.300	5.300	5.300	-	3.060	2.940	2.670	1.400	0.952	0.600	30
31	-	5.300	-	6.900	6.500	-	2.900	-	2.400	-	0.952	0.600	31
Total	32.630	203.050	310.600	207.050	358.300	143.590	131.780	132.830	117.550	45.406	33.764	23.080	
Mean	1.088	6.550	10.353	6.679	11.558	5.128	4.251	4.428	3.792	1.513	1.089	0.744	

Annual Total ( ) 1,739.630

Daily Runoff STATION 1 Llaucano-Derivación

RIVER, IN THE BASIN OF ELEVATION 2,570 m UNIT cu.m/sec-day YEAR 1966 1967

DATE	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	DATE
1	0.700	0.800	9.500	5.100	1.850	19.150	27.600	13.400	7.200	2.550	1.050	1.008	1
2	0.660	1.300	6.870	4.350	3.050	14.500	17.000	11.400	6.300	2.550	1.050	1.000	2
3	0.700	2.750	5.450	4.350	6.000	9.900	13.500	12.200	5.700	3.400	1.150	1.000	3
4	0.800	3.800	4.850	3.890	5.250	9.900	12.150	8.300	4.900	2.750	1.150	1.000	4
5	0.800	4.400	4.600	3.890	5.500	8.700	14.000	7.900	4.900	2.550	1.150	0.920	5
6	0.800	3.800	6.870	3.890	4.750	11.000	12.600	6.600	4.400	2.400	1.150	1.000	6
7	0.700	2.750	7.340	3.890	3.750	12.150	14.000	5.700	4.250	2.550	1.050	1.000	7
8	0.700	2.230	5.450	3.650	3.200	12.600	13.500	4.900	3.850	2.750	1.050	0.920	8
9	0.800	3.050	4.850	3.440	2.750	30.000	14.500	4.400	3.700	3.700	1.050	0.920	9
10	0.930	4.700	4.850	4.600	2.600	17.000	13.050	4.250	3.700	2.400	1.050	0.860	10
11	0.800	4.400	5.450	3.650	5.000	12.500	11.250	4.050	3.700	2.050	1.250	0.860	11
12	0.700	3.200	4.850	2.800	4.500	12.500	11.700	3.850	3.500	1.750	1.250	0.860	12
13	0.800	17.400	4.130	2.430	5.500	8.000	15.500	3.850	3.500	1.550	2.050	0.920	13
14	0.700	15.300	3.300	2.100	5.750	8.700	14.500	3.700	4.400	1.550	2.200	0.920	14
15	0.800	10.500	2.800	1.900	5.000	6.900	42.200	4.250	6.000	1.750	1.750	0.920	15
16	0.930	8.100	2.600	1.750	4.750	5.250	52.650	4.050	4.650	1.650	1.550	0.920	16
17	0.700	4.100	2.250	1.750	5.250	5.250	35.250	4.400	3.700	1.650	1.400	0.920	17
18	1.050	3.200	2.430	1.600	5.500	5.500	26.300	6.300	7.550	1.650	1.400	0.920	18
19	0.810	9.300	2.800	1.470	7.500	6.300	18.500	8.300	5.700	1.550	1.350	0.860	19
20	0.700	9.300	2.430	1.470	8.700	5.500	13.050	11.400	4.650	1.400	1.350	0.860	20
21	1.290	12.200	2.800	1.330	6.900	5.500	10.350	10.200	4.400	1.400	1.650	0.920	21
22	1.400	9.700	2.600	1.200	6.600	6.000	7.800	9.400	3.850	1.400	1.900	0.920	22
23	1.150	5.900	3.300	0.950	6.000	9.450	7.200	10.600	3.500	1.400	1.550	0.920	23
24	1.530	5.300	3.300	0.650	6.600	8.700	6.300	9.000	3.700	1.400	1.400	0.920	24
25	0.930	5.000	5.470	0.950	5.000	113.700	5.750	25.000	3.150	1.350	1.350	1.000	25
26	0.930	4.100	4.850	1.330	5.500	78.800	5.250	26.000	3.300	1.350	1.350	1.000	26
27	0.800	3.350	8.750	1.330	6.600	66.050	4.750	17.800	2.800	1.350	1.250	1.000	27
28	0.800	3.050	10.000	1.470	5.250	41.400	6.300	12.200	2.600	1.400	1.150	1.150	28
29	0.930	4.100	8.750	1.200	5.000	-	11.700	9.800	2.600	1.400	1.050	1.050	29
30	0.930	3.200	6.400	1.200	20.000	-	23.700	8.650	2.600	1.350	1.050	1.000	30
31	-	11.400	-	1.300	13.000	-	18.000	-	2.450	-	1.050	1.050	31
Total	26.270	181.680	149.890	74.910	182.600	550.900	499.900	271.850	131.200	57.950	41.200	29.518	
Mean	0.876	5.861	4.996	2.416	5.890	19.675	16.126	9.062	4.232	1.932	1.329	0.952	

Annual Total ( ) 2,197.868

Daily Runoff STATION 1 Llaucano-Derivación

RIVER, IN THE BASIN OF ELEVATION 2,570 m UNIT cu.m/sec-day YEAR 1967 1968

DATE	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	DATE
1	1.150	1.100	8.833	2.050	2.450	4.112	4.912	4.450	7.650	1.400	0.670	0.740	1
2	1.150	0.999	6.500	1.900	2.400	3.750	6.787	4.150	4.437	1.400	0.695	0.740	2
3	1.058	1.045	5.200	1.900	2.317	5.325	11.000	3.900	2.435	1.300	0.740	0.725	3
4	0.977	1.325	4.750	1.800	2.400	4.275	9.150	3.650	2.400	1.300	0.740	0.680	4
5	0.970	1.304	3.593	1.744	2.450	3.750	9.550	3.475	2.287	1.225	0.740	0.640	5
6	0.970	1.162	2.600	1.640	2.400	3.475	11.925	3.200	2.250	1.375	0.787	0.640	6
7	0.970	1.196	2.410	1.640	2.800	3.487	11.475	3.000	2.100	1.400	0.800	0.640	7
8	0.970	1.292	2.017	1.640	2.225	4.225	11.450	3.000	2.100	1.300	0.800	0.680	8
9	0.970	1.208	5.825	1.600	1.967	8.700	23.312	3.000	1.850	1.375	0.870	0.680	9
10	1.043	1.200	4.750	1.700	1.950	7.000	26.763	2.800	1.750	1.480	0.740	0.710	10
11	1.050	1.475	3.397	7.666	1.950	7.200	59.750	2.800	1.650	1.400	0.740	0.755	11
12	1.096	3.608	2.310	17.666	2.000	7.400	31.500	2.650	1.750	1.350	0.740	0.915	12
13	1.100	3.250	2.370	8.050	1.800	9.875	21.750	2.650	1.837	1.300	0.740	0.852	13
14	1.146	2.008	2.100	3.283	1.900	6.500	16.375	2.650	2.062	1.300	0.740	0.785	14
15	1.104	2.358	2.000	3.000	5.300	6.050	14.175	2.650	2.318	1.300	0.800	0.740	15
16	1.058	1.942	1.900	7.566	3.208	9.400	12.800	2.650	2.287	1.300	0.800	0.710	16
17	0.977	1.717	2.333	7.300	2.700	8.400	17.825	2.612	2.212	1.225	0.785	0.680	17
18	0.970	1.700	7.042	7.000	2.100	6.700	13.925	2.500	2.100	1.225	0.800	0.670	18
19	0.970	1.792	9.762	6.066	2.300	10.400	12.500	2.500	2.100	1.225	0.785	0.640	19
20	0.970	2.121	6.792	4.650	2.300	13.175	11.450	2.500	2.506	1.225	0.740	0.680	20
21	0.970	3.112	8.083	3.800	2.300	17.725	9.950	2.300	2.362	1.150	0.740	0.680	21
22	0.970	1.146	8.167	3.306	2.150	9.800	8.525	2.300	2.100	1.150	0.740	0.640	22
23	1.043	3.654	5.384	3.060	2.850	7.100	7.712	2.300	1.962	1.150	0.785	0.640	23
24	1.050	2.704	4.750	2.386	2.783	5.650	7.200	2.200	1.850	1.150	0.740	0.785	24
25	0.977	4.958	3.430	2.350	7.667	4.725	6.750	2.200	1.750	1.100	0.725	0.870	25
26	0.878	9.596	3.000	3.060	9.900	4.275	5.950	2.050	1.750	1.100	0.680	0.800	26
27	0.870	13.208	2.465	3.083	9.500	4.150	5.500	1.900	1.650	1.100	0.650	0.740	27
28	0.916	9.375	2.200	2.866	8.100	6.700	5.187	1.900	1.625	1.100	0.640	0.725	28
29	1.632	13.125	2.200	4.416	7.100	5.825	5.112	1.900	1.550	1.025	0.680	0.680	29
30	1.135	9.558	2.100	3.740	6.633	-	4.750	1.900	1.480	1.025	0.740	0.640	30
31	-	4.183	-	2.936	5.466	-	4.600	-	1.400	-	0.740	0.640	31
Total	31.110	108.421	128.263	127.866	115.366	199.149	409.610	81.737	69.560	37.455	23.112	22.142	
Mean	1.037	3.497	4.275	4.124	3.721	6.867	13.213	2.724	2.244	1.249	0.745	0.714	

Annual Total ( ) 1,353.791

Daily Runoff STATION 1 Llaucano-Derivación

RIVER, IN THE BASIN OF ELEVATION 2,570 m UNIT cu. m/sec-day YEAR 1968 1969

DATE	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	DATE
1	1.500	7.075	4.900	1.370	2.050	1.520	3.437	8.100	3.540	1.450	1.425	0.630	1
2	1.250	5.945	3.815	1.270	1.800	1.400	3.625	7.350	3.130	1.450	1.310	0.630	2
3	2.212	5.025	3.300	1.270	1.552	1.400	5.570	6.650	2.950	1.450	1.220	0.558	3
4	2.025	4.275	3.100	1.190	1.520	1.635	4.422	17.025	2.750	1.800	1.080	0.594	4
5	1.550	6.800	2.940	1.100	1.520	2.575	3.950	15.125	3.170	1.920	1.080	0.559	5
6	1.300	7.000	2.940	1.100	1.400	3.375	4.100	20.150	2.950	1.735	0.940	0.559	6
7	1.160	6.605	2.980	1.100	1.250	19.350	11.025	19.300	3.040	1.422	0.940	0.526	7
8	1.160	6.760	3.690	1.190	1.250	7.025	9.500	14.050	2.670	1.240	0.940	0.507	8
9	1.125	9.000	5.175	1.270	1.250	8.775	11.675	12.650	2.430	1.240	0.840	0.541	9
10	1.015	7.310	5.375	1.430	1.150	12.500	8.850	14.500	2.300	1.240	0.820	0.524	10
11	0.860	6.278	5.250	1.790	1.050	13.750	5.845	18.208	2.300	1.340	0.820	0.526	11
12	0.860	4.873	7.395	2.175	1.192	15.000	4.255	44.750	2.140	2.030	0.820	0.524	12
13	2.462	4.688	5.925	2.250	3.050	15.100	4.230	21.900	2.000	2.707	0.820	0.492	13
14	2.150	9.450	5.370	2.635	3.675	13.750	4.337	17.000	2.080	3.195	0.720	0.530	14
15	1.412	8.500	5.350	7.100	9.400	12.000	5.787	21.717	2.000	2.713	0.720	0.524	15
16	1.205	7.485	4.800	5.055	17.000	9.500	4.787	21.133	1.890	2.490	0.720	0.492	16
17	1.125	6.400	3.815	2.830	23.750	6.325	4.385	15.225	1.780	2.052	0.720	0.490	17
18	1.050	5.448	3.200	2.520	11.675	6.100	3.900	12.700	1.680	1.860	0.720	0.524	18
19	1.275	5.093	2.797	2.850	8.850	5.250	3.775	9.650	1.550	1.555	0.630	0.541	19
20	2.212	4.538	2.460	2.850	6.020	4.690	3.700	7.025	1.550	1.450	0.630	0.507	20
21	1.775	3.738	2.160	2.250	3.850	4.255	3.800	10.650	1.550	1.340	0.630	0.490	21
22	1.700	4.100	2.000	2.620	3.225	3.900	3.800	8.200	1.550	1.240	0.630	0.490	22
23	1.575	3.450	1.880	2.620	3.037	3.750	3.825	6.500	1.550	1.080	0.630	0.630	23
24	1.375	3.087	1.940	2.217	2.575	6.100	3.317	5.800	1.550	1.080	0.558	0.558	24
25	1.250	3.000	2.415	1.947	2.200	5.950	3.290	5.200	1.480	1.080	0.558	0.558	25
26	1.160	3.238	1.940	1.617	2.200	4.885	3.290	5.150	1.550	1.080	0.558	0.558	26
27	1.330	4.925	1.970	1.490	2.050	4.255	3.290	4.900	1.550	0.950	0.558	0.541	27
28	1.875	6.150	1.850	1.490	2.050	3.750	3.725	4.650	1.515	1.080	0.558	0.541	28
29	4.400	5.712	1.650	1.490	1.850	-	6.850	4.450	1.380	1.080	0.558	0.507	29
30	5.925	5.540	1.560	1.672	1.650	-	9.000	4.200	1.380	1.340	0.558	0.460	30
31	-	4.995	-	1.590	1.520	-	8.000	-	1.380	-	0.558	0.524	31
Total	51.273	176.483	103.942	65.348	126.611	197.865	163.342	383.908	64.255	47.689	24.269	16.635	
Mean	1.709	5.693	3.465	2.108	4.084	7.067	5.269	12.797	2.073	1.590	0.783	0.537	

Annual Total ( ) 1,421.620

Daily Runoff STATION 1 Llaucano-Derivación

RIVER, IN THE BASIN OF ELEVATION 2,570 m UNIT cu. m/sec-day YEAR 1969 - 1970

DATE	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	DATE
1	0.490	0.567	2.315	25.275	6.735	10.720	12.480	5.442	12.060	4.130	1.740	1.275	1
2	0.490	0.587	2.280	28.375	4.925	12.240	14.880	5.155	7.400	3.680	1.740	1.230	2
3	0.490	0.555	1.970	18.500	4.522	9.150	11.305	4.867	6.475	3.635	1.740	1.230	3
4	0.490	0.540	2.280	27.250	4.407	8.300	7.700	6.020	10.900	3.462	1.620	1.140	4
5	0.490	0.600	3.013	20.825	4.465	8.000	6.875	7.400	10.000	3.350	1.575	1.230	5
6	0.490	0.390	2.363	17.150	4.350	6.280	7.100	12.020	12.680	2.665	1.590	1.032	6
7	0.490	0.560	2.280	16.500	6.800	6.150	6.540	19.000	8.300	3.200	1.560	1.050	7
8	0.490	0.507	1.750	20.825	8.000	5.040	6.020	14.660	8.640	4.130	1.560	0.990	8
9	0.490	1.205	1.225	17.425	6.020	7.250	6.280	8.385	8.660	3.477	1.560	0.840	9
10	0.490	0.865	1.570	15.225	5.890	5.630	6.850	8.000	10.810	3.350	1.590	0.875	10
11	0.490	0.600	4.325	12.125	5.040	5.500	25.550	7.400	10.000	2.130	1.620	0.910	11
12	0.475	0.617	6.600	10.525	7.820	4.407	16.200	6.150	8.640	1.923	1.690	0.927	12
13	0.541	0.915	4.075	9.600	13.420	4.350	16.480	6.280	8.000	1.923	1.620	1.032	13
14	0.380	1.777	3.550	8.400	14.000	4.350	27.485	6.800	6.605	1.795	1.690	0.945	14
15	0.380	2.235	21.350	7.200	7.250	2.350	21.800	7.400	9.915	1.800	1.560	0.945	15
16	0.380	4.462	11.475	6.700	9.575	3.250	18.440	11.840	7.250	1.740	1.545	0.980	16
17	0.380	4.225	9.600	6.000	7.475	4.350	11.710	15.210	8.300	1.740	1.500	0.945	17
18	0.380	4.112	8.712	5.200	6.085	5.041	11.800	17.600	9.830	1.740	1.500	0.840	18
19	0.380	3.437	4.100	4.400	7.400	4.537	6.625	15.650	8.980	1.770	1.500	0.875	19
20	0.490	2.415	6.500	5.600	13.010	7.700	7.700	13.120	7.475	1.725	1.545	0.910	20
21	0.430	2.020	3.900	16.117	9.915	7.700	6.800	11.910	6.475	1.680	1.500	0.910	21
22	0.490	2.425	4.000	16.250	12.370	6.020	6.540	8.300	8.000	1.620	1.387	0.840	22
23	0.430	4.637	12.725	12.100	10.180	6.020	5.500	6.605	6.875	1.620	1.230	0.735	23
24	0.490	7.950	14.100	11.325	9.235	7.025	5.385	6.410	6.150	1.650	1.050	0.770	24
25	0.490	5.987	18.500	9.900	9.150	12.240	4.580	6.280	5.327	4.220	1.230	0.770	25
26	0.820	5.337	17.875	9.975	7.700	11.440	4.350	6.215	4.867	7.870	1.320	0.892	26
27	0.630	3.825	32.000	10.200	6.950	10.000	4.925	5.760	4.465	4.565	1.230	0.857	27
28	0.820	3.962	53.500	10.200	9.670	12.520	3.250	5.565	4.350	3.350	1.455	0.980	28
29	0.490	3.595	36.875	8.500	6.800	-	3.250	5.760	4.075	2.088	1.410	0.980	29
30	0.612	2.700	31.250	7.400	10.710	-	3.250	6.735	3.430	1.965	1.230	1.560	30
31	-	2.297	-	6.900	21.765	-	4.131	-	3.690	-	1.230	1.015	31
Total	14.878	75.906	326.058	402.467	261.634	197.560	301.781	267.939	238.664	83.983	46.177	30.500	
Mean	0.496	2.449	10.868	12.982	8.440	7.055	9.734	8.931	7.699	2.799	1.489	0.984	

Annual Total ( ) 2,247.547

Daily Runoff STATION 1 Llaucano-Derivación

RIVER, IN THE BASIN OF ELEVATION 2,570 m UNIT cu.m/sec-day YEAR 1970 - 1971

DATE	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	DATE
1	1.032	1.215	17.641	26.283	7.335	7.363	12.768	57.966	5.456	4.421	2.667	1.289	1
2	1.050	0.970	12.347	36.623	7.935	5.596	20.681	63.067	5.540	4.165	2.749	1.297	2
3	1.140	1.732	10.462	38.836	6.531	8.608	26.293	45.433	6.233	3.908	2.804	1.242	3
4	1.140	1.800	26.014	47.776	7.937	9.625	23.976	41.460	5.833	3.780	2.654	1.242	4
5	1.230	2.030	19.466	25.923	8.280	6.945	29.320	42.720	6.126	3.871	2.367	1.211	5
6	0.980	1.180	14.500	18.103	12.880	5.986	20.476	27.490	12.098	3.596	2.244	1.305	6
7	0.980	1.215	11.933	15.346	15.140	6.291	14.616	26.107	18.145	4.568	2.203	1.242	7
8	0.963	0.890	11.480	11.736	12.560	7.055	12.473	23.050	14.076	4.715	2.080	1.289	8
9	1.230	1.233	11.693	10.746	9.627	7.465	10.696	21.398	10.055	4.055	2.025	1.289	9
10	0.875	3.110	20.329	11.886	9.140	5.615	9.771	16.442	8.286	5.558	1.895	1.187	10
11	0.910	2.890	28.425	10.380	8.301	4.950	10.985	27.813	7.243	5.956	1.787	1.171	11
12	0.890	1.400	20.800	8.630	7.200	4.620	12.758	22.500	6.480	10.266	1.635	1.951	12
13	0.890	3.180	13.853	8.680	6.937	4.680	20.545	21.950	5.906	9.805	1.560	1.851	13
14	0.970	1.630	12.920	7.606	9.190	4.398	26.395	23.370	5.558	9.781	1.505	1.679	14
15	1.040	1.980	13.533	11.981	13.282	4.205	21.471	36.537	5.576	8.974	1.430	1.907	15
16	1.005	3.850	12.200	12.888	14.703	4.145	22.613	36.157	5.775	7.023	1.430	1.592	16
17	0.970	4.500	9.940	10.196	12.690	5.853	30.920	25.546	5.578	6.073	1.398	1.391	17
18	0.890	4.850	9.757	10.680	9.400	9.406	45.100	19.190	5.136	5.521	1.455	1.242	18
19	0.830	2.922	10.947	10.743	7.768	15.499	47.920	15.627	5.136	5.210	1.336	1.148	19
20	0.890	2.700	11.956	12.126	6.537	21.456	36.440	13.240	4.806	4.916	1.296	1.148	20
21	0.830	2.255	14.217	9.925	5.748	28.840	39.480	12.075	4.660	4.495	1.242	1.124	21
22	0.890	4.515	13.587	8.600	5.355	43.633	33.833	12.872	5.080	4.348	1.242	1.054	22
23	0.970	4.450	12.596	7.263	6.385	36.358	35.910	11.793	6.143	4.018	1.242	1.054	23
24	0.830	4.425	9.867	6.441	7.027	36.908	41.770	10.693	9.920	3.816	1.242	1.054	24
25	0.970	4.363	9.920	5.935	5.928	22.745	40.526	9.574	8.980	3.505	1.293	1.054	25
26	9.899	5.069	10.927	5.895	4.995	18.513	36.196	8.675	7.831	3.340	1.257	1.085	26
27	0.910	8.160	11.586	7.031	4.968	14.648	35.973	7.840	6.881	3.211	1.537	1.015	27
28	0.830	11.748	12.214	6.953	8.552	12.366	30.080	7.300	6.128	3.028	2.165	0.977	28
29	0.930	7.345	14.950	5.986	13.146	-	22.473	6.641	5.595	2.845	1.985	0.943	29
30	1.110	24.353	17.990	6.540	11.084	-	37.046	6.225	5.173	2.588	1.668	0.892	30
31	-	26.675	-	8.100	8.471	-	74.566	-	4.788	-	1.422	0.892	31
Total	29.065	148.536	425.179	425.837	275.032	363.774	874.070	709.661	220.221	151.358	54.795	38.817	
Mean	0.969	4.791	14.172	13.737	8.872	12.992	28.196	23.355	7.104	5.045	1.767	1.252	

Annual Total ( ) 3,707.336

Daily Runoff STATION 1 Llaucano-Derivación

RIVER, IN THE BASIN OF ELEVATION 2,570m UNIT cu.m/sec-day YEAR 1971 - 1972

DATE	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	DATE
1	1.008	1.101	16.343	22.770	8.146	4.562	9.452	10.545	13.796	5.543	1.946	1.214	1
2	1.045	1.101	13.541	30.026	6.883	4.225	6.976	9.480	11.360	5.512	1.908	1.161	2
3	1.051	1.169	8.476	32.086	6.846	3.838	5.724	8.526	9.780	5.035	1.783	1.207	3
4	1.019	2.025	7.580	20.355	9.340	3.484	5.906	7.547	8.600	4.856	1.649	1.175	4
5	0.996	4.633	6.886	12.831	9.788	3.356	20.646	7.120	7.875	4.624	1.611	1.303	5
6	1.033	3.128	6.580	10.256	8.788	3.399	11.100	6.451	7.800	4.510	1.921	1.329	6
7	1.050	2.596	5.700	7.826	8.266	7.637	10.436	6.033	8.661	4.352	1.716	1.284	7
8	1.197	3.428	15.005	6.756	9.596	11.267	18.936	5.716	10.996	4.272	1.898	1.214	8
9	1.248	6.623	9.198	6.060	8.076	18.000	45.723	8.432	8.660	4.102	2.355	1.169	9
10	1.274	4.587	7.260	5.325	6.840	15.868	26.113	30.736	7.770	3.944	7.525	1.149	10
11	1.350	3.621	6.793	4.756	6.420	9.853	16.230	35.236	9.095	3.932	3.589	1.105	11
12	1.376	4.292	8.936	4.400	7.386	7.187	12.341	17.862	7.600	3.751	2.675	1.092	12
13	1.316	3.484	7.583	4.000	8.145	5.977	11.367	16.358	6.733	3.683	2.253	1.156	13
14	1.206	3.979	6.300	3.638	9.295	5.099	11.876	23.943	6.378	4.658	2.042	1.060	14
15	1.172	4.442	5.560	3.369	7.623	4.651	21.459	25.567	6.253	4.057	1.898	1.053	15
16	1.163	3.181	6.129	3.418	6.240	4.183	35.826	21.461	7.601	3.615	1.892	1.028	16
17	1.079	2.825	5.959	3.185	5.398	3.767	21.850	21.769	6.453	3.558	1.678	1.028	17
18	1.951	2.719	4.257	3.291	4.811	3.782	18.370	18.879	6.276	3.532	1.691	1.093	18
19	0.996	4.135	3.969	7.968	5.100	3.393	21.700	17.875	5.828	3.400	1.534	1.060	19
20	2.965	4.597	4.247	9.763	5.429	3.087	33.940	22.686	6.726	3.347	1.476	1.066	20
21	0.922	3.523	6.369	16.816	5.328	2.894	34.960	18.125	7.736	3.310	1.448	1.040	21
22	0.922	3.862	9.993	11.231	6.155	2.790	26.476	18.908	10.273	3.319	1.368	1.092	22
23	0.965	3.684	10.270	9.360	6.793	2.648	20.040	16.621	17.880	3.257	1.361	1.182	23
24	0.997	7.070	7.053	8.443	5.568	2.549	15.186	17.301	15.550	3.205	1.400	1.137	24
25	0.995	8.808	6.023	9.182	5.105	2.790	16.676	20.112	13.376	3.250	1.374	1.162	25
26	1.051	15.431	5.783	12.829	4.651	3.059	18.875	27.685	10.325	3.092	1.381	1.182	26
27	1.070	10.463	6.926	9.716	4.050	3.314	14.780	25.873	8.875	2.987	1.316	1.137	27
28	1.078	8.848	12.018	9.555	4.033	5.305	18.253	24.431	7.675	2.935	1.316	1.092	28
29	1.265	11.118	10.745	15.200	4.988	(12.216)	19.040	23.816	6.920	2.897	1.323	1.060	29
30	1.248	11.316	13.363	10.863	6.060	-	15.600	17.279	6.360	2.927	1.316	1.085	30
31	-	15.003	-	9.561	5.571	-	13.094	-	5.956	-	1.316	1.066	31
Total	33.109	166.992	243.209	324.826	206.759	163.997	578.942	531.464	275.167	115.423	59.779	35.181	
Mean	1.104	5.387	8.107	10.478	6.669	5.655	18.675	17.715	8.876	3.847	1.928	1.134	

Annual Total ( ) 2,734.848

Daily Runoff STATION 1 Llaucano-Derivación

RIVER, IN THE BASIN OF ELEVATION 2,570 m. UNIT cu.m/sec-day YEAR 1972-1973

DATE	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	DATE
1	0.764	1.149	1.023	6.412	1.953	4.000	5.684	41.194	10.177	2.983	3.340	7.827	1
2	0.909	1.141	0.946	6.146	1.856	3.629	6.420	67.060	9.694	2.823	2.675	7.827	2
3	1.272	1.237	0.908	7.179	1.856	3.582	6.265	64.010	8.185	2.724	2.564	8.147	3
4	1.039	2.288	0.869	6.367	1.856	3.648	6.233	32.931	11.754	2.527	2.564	6.127	4
5	0.869	3.010	0.803	5.687	1.944	8.833	5.990	24.621	11.333	2.379	2.527	4.865	5
6	0.799	6.914	0.831	5.267	2.068	13.069	6.204	28.275	8.478	2.231	2.367	3.936	6
7	0.770	4.535	0.875	4.383	1.980	19.261	10.336	33.697	7.605	2.094	2.077	3.316	7
8	0.770	3.178	1.018	4.851	2.147	14.092	11.240	35.524	6.981	2.017	1.974	2.909	8
9	0.741	2.586	1.073	8.200	2.437	9.710	10.222	29.217	6.285	2.051	1.871	2.613	9
10	0.729	2.477	1.168	8.923	6.789	7.304	9.803	27.439	5.929	2.008	1.768	2.379	10
11	0.741	2.100	2.434	13.893	5.708	6.387	7.700	28.213	5.604	1.888	1.648	2.157	11
12	0.711	2.135	4.065	10.003	6.616	5.317	7.014	24.658	6.728	1.862	1.545	2.034	12
13	0.700	1.875	6.508	7.967	6.116	4.433	15.783	35.938	5.605	1.862	1.458	2.025	13
14	0.828	1.644	7.398	7.875	9.760	3.769	16.622	34.591	5.109	1.785	1.427	1.957	14
15	0.846	1.537	4.457	7.954	10.032	3.404	11.024	28.024	4.785	1.759	1.427	1.939	15
16	1.491	1.479	2.974	6.412	7.484	3.274	8.773	33.546	4.426	1.588	1.427	1.964	16
17	1.453	1.446	2.259	5.575	5.821	3.144	8.180	33.688	4.204	1.536	1.427	1.751	17
18	2.143	1.405	1.981	8.575	5.518	3.037	7.740	26.865	3.913	1.682	1.427	1.751	18
19	2.389	1.347	1.792	8.400	9.827	2.812	7.220	18.746	3.674	2.272	1.427	1.579	19
20	3.507	1.347	1.879	6.300	30.816	2.801	6.465	17.844	4.290	2.130	1.603	1.596	20
21	2.891	1.297	1.981	5.196	13.766	2.659	5.751	19.720	4.221	2.237	2.059	1.673	21
22	2.088	1.231	3.291	4.229	10.262	10.534	5.319	15.732	3.661	1.948	1.588	1.545	22
23	1.701	1.108	3.848	3.522	12.895	11.692	5.611	13.815	3.520	2.104	1.503	1.502	23
24	1.404	1.050	3.486	3.167	11.554	10.329	8.010	11.357	3.196	2.576	2.123	1.502	24
25	1.165	1.050	3.955	2.801	8.867	7.096	6.273	9.920	3.025	3.849	2.374	1.502	25
26	1.009	1.050	6.929	2.505	7.283	7.408	6.237	9.377	2.922	5.568	3.636	1.502	26
27	0.962	1.050	5.841	2.410	6.137	6.637	23.529	10.117	2.734	4.413	3.193	1.433	27
28	0.945	0.968	6.454	2.931	5.992	5.679	19.037	8.165	2.564	3.131	2.749	1.459	28
29	0.939	0.992	7.424	2.410	5.617	-	26.293	7.540	2.854	2.761	4.937	1.759	29
30	0.951	0.881	7.721	2.033	5.067	-	19.119	7.660	3.896	3.242	7.213	1.528	30
31	-	0.817	-	2.006	4.383	-	15.537	-	4.169	-	9.827	1.502	31
Total	37.436	56.324	96.191	179.579	214.407	187.551	315.636	779.484	171.521	74.030	79.745	85.606	
Mean	1.247	1.817	3.206	5.793	6.916	6.698	10.182	25.982	5.532	2.467	2.572	2.761	

Annual Total ( ) 2,277.540

Daily Runoff STATION 1 Llaucano-Derivación

RIVER, IN THE BASIN OF ELEVATION 2,570 UNIT cu.m/sec-day YEAR 1973 - 1974

DATE	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	DATE
1	2.074												1
2	2.924												2
3	2.643												3
4	2.699												4
5	2.078												5
6	2.857												6
7	3.874												7
8	2.899												8
9	2.381												9
10	2.058												10
11	1.925												11
12	1.767												12
13	1.700												13
14	1.700												14
15	2.000												15
16	4.729												16
17	4.975												17
18	8.008												18
19	5.146												19
20	19.958												20
21	34.768												21
22	16.077												22
23	11.437												23
24	12.473												24
25	12.930												25
26	12.455												26
27	12.947												27
28	9.375												28
29	7.423												29
30	6.054												30
31	-												31
Total	214.336												
Mean	7.144												

Annual Total ( )

STATION 2 Corellama

RIVER, IN THE BASIN OF ELEVATION 2,380 m UNIT Cu. m/sec-day YEAR 1962 - 1963

DATE	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	DATE
1	0.900	0.800	1.400	1.480	1.550	9.280	20.200	9.250	5.600	2.548	1.166	0.764	1
2	0.900	1.200	1.550	1.480	1.782	8.380	18.520	8.500	5.600	2.548	1.226	0.764	2
3	0.900	1.100	2.000	1.480	2.088	9.620	20.200	7.750	5.600	2.413	1.226	0.764	3
4	0.900	1.050	3.100	1.550	2.230	8.940	24.040	25.000	18.000	2.400	1.226	0.764	4
5	0.900	1.050	3.500	1.550	2.545	10.640	18.100	36.500	15.000	2.304	1.191	0.750	5
6	0.900	1.100	3.900	1.480	2.742	8.600	14.400	36.500	11.200	2.200	1.191	0.715	6
7	0.900	1.270	2.320	1.550	2.886	12.800	12.000	55.000	9.000	2.181	0.953	0.700	7
8	0.900	1.340	2.320	1.690	3.144	8.940	14.400	50.000	7.500	2.100	0.953	0.700	8
9	0.900	1.500	4.300	1.760	3.250	8.600	16.840	40.000	6.600	2.009	1.042	0.688	9
10	1.050	1.340	4.150	2.160	3.555	4.780	32.400	29.000	5.880	2.085	1.042	0.650	10
11	1.000	1.100	4.350	3.700	3.882	7.820	37.400	23.000	7.200	2.000	0.990	0.800	11
12	0.950	1.050	2.430	4.460	4.000	8.340	37.400	20.000	5.400	1.983	0.990	0.750	12
13	0.950	1.100	2.100	7.200	4.222	5.560	27.500	14.100	4.900	2.242	1.700	0.800	13
14	0.950	1.150	2.200	7.450	4.500	4.900	19.360	14.200	4.900	2.200	1.411	0.818	14
15	0.950	1.100	1.900	3.700	4.580	4.020	15.600	13.000	4.600	2.001	1.411	0.892	15
16	1.000	1.200	1.300	2.680	4.380	3.500	16.000	11.500	4.200	2.100	1.226	0.892	16
17	0.950	1.300	1.550	2.030	3.159	2.900	12.800	9.900	3.900	2.144	1.157	0.181	17
18	0.950	1.200	1.350	1.690	2.933	2.900	11.320	9.900	3.900	2.250	0.966	0.181	18
19	0.950	1.150	1.200	1.550	2.683	4.240	13.600	9.500	3.500	2.198	0.966	0.750	19
20	0.950	1.100	1.100	1.550	2.382	4.460	17.680	12.000	3.500	2.100	0.966	1.818	20
21	0.950	1.100	1.150	1.340	3.012	6.780	18.100	12.300	3.500	1.900	1.444	1.300	21
22	1.000	1.100	1.100	2.940	2.966	4.900	17.260	10.000	3.500	1.800	1.144	1.420	22
23	0.950	1.050	1.100	3.900	3.321	4.240	21.160	8.800	3.000	1.700	1.009	1.157	23
24	0.950	1.050	1.200	3.000	4.496	4.020	27.000	7.900	2.700	1.588	1.009	1.140	24
25	0.900	1.050	3.200	2.800	4.325	5.340	32.400	7.300	2.900	1.588	0.980	0.892	25
26	1.000	1.000	2.650	2.550	5.063	28.000	25.500	6.300	2.900	1.500	0.980	0.775	26
27	1.050	0.950	2.000	1.900	7.120	17.260	20.200	6.000	2.800	1.475	0.892	0.750	27
28	1.000	1.000	1.750	1.400	8.696	29.000	15.600	6.000	3.300	1.300	0.892	0.750	28
29	1.400	1.050	1.900	1.400	9.860	-	16.000	5.200	2.800	1.162	0.818	0.750	29
30	1.700	1.100	2.100	1.340	6.850	-	15.000	4.300	2.700	1.162	0.818	0.750	30
31	-	1.150	-	1.270	8.080	-	13.600	-	2.600	-	0.764	0.713	31
	29.650	34.800	66.670	76.030	126.282	240.720	622.180	512.700	168.600	59.194	33.449	25.812	
	0.988	1.122	2.222	2.452	4.074	8.597	20.070	17.090	5.439	1.973	1.079	0.833	
										Annual Total ( )		1,996.077	

STATION 2 Corellama

RIVER, IN THE BASIN OF ELEVATION 2,380 m UNIT Cu. m/sec-day YEAR 1963 - 1964

DATE	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	DATE
1	0.791	1.424	5.480	17.500	25.800	10.150	8.700	21.000	6.550	3.750	1.652	1.580	1
2	0.791	1.616	5.660	20.900	22.800	9.860	14.050	22.000	7.000	3.500	1.652	1.512	2
3	0.700	1.800	9.400	18.700	20.520	8.990	12.650	18.100	6.775	3.500	1.652	1.444	3
4	0.700	1.424	24.500	19.800	15.490	8.160	11.310	12.900	7.000	3.189	1.580	1.444	4
5	0.791	1.300	19.000	17.200	12.500	7.890	9.280	11.000	10.520	3.020	1.580	1.444	5
6	0.700	1.144	10.200	16.100	10.730	11.020	7.620	11.000	8.855	4.750	1.512	1.444	6
7	0.818	1.090	7.100	12.100	10.440	11.020	6.810	10.400	8.590	4.125	1.444	1.308	7
8	0.818	0.982	5.480	9.700	8.990	12.650	6.540	15.100	7.000	4.000	1.376	1.172	8
9	0.791	0.928	4.500	7.700	7.890	11.310	5.500	20.500	6.550	4.125	1.308	1.308	9
10	0.791	0.982	3.760	6.300	6.810	11.020	5.000	18.700	5.650	4.625	1.308	1.240	10
11	0.791	0.874	3.280	4.980	9.280	8.700	5.750	16.300	4.975	4.625	1.308	1.172	11
12	0.791	1.198	2.800	4.320	12.500	7.350	7.350	12.900	4.750	4.000	1.308	1.104	12
13	0.818	1.680	2.440	18.700	11.950	6.540	6.810	12.000	4.625	3.625	1.308	1.036	13
14	0.890	1.488	2.170	20.900	9.280	7.080	8.160	11.300	4.500	3.380	1.240	1.036	14
15	0.890	1.360	2.080	19.800	11.690	7.890	6.540	12.000	4.250	3.380	1.308	1.036	15
16	0.890	2.750	1.990	17.900	8.430	7.890	5.750	12.450	4.125	3.260	1.444	1.172	16
17	0.708	3.415	1.900	31.400	8.160	7.620	6.810	13.350	4.125	3.020	1.308	1.308	17
18	0.818	2.525	1.900	22.500	8.990	8.700	10.440	9.800	3.875	2.900	1.376	1.308	18
19	0.616	1.872	1.950	19.800	9.860	8.700	14.400	8.950	3.750	2.780	1.652	1.308	19
20	0.616	1.488	2.800	24.000	7.890	11.600	13.700	8.450	3.875	2.660	2.084	1.376	20
21	0.584	1.488	4.250	16.800	7.350	14.050	11.310	7.600	5.200	2.540	2.472	1.376	21
22	0.584	1.424	11.000	14.280	7.080	11.950	9.570	7.800	4.625	2.300	2.816	1.652	22
23	0.681	1.360	7.750	10.380	5.000	15.490	8.430	6.900	4.250	2.300	2.472	2.472	23
24	0.681	1.744	5.660	8.680	4.500	18.220	9.860	6.900	4.500	2.300	2.084	3.074	24
25	0.747	1.872	4.350	10.700	7.080	14.400	11.600	6.700	4.250	2.110	2.012	2.988	25
26	0.616	2.600	3.750	13.200	8.160	11.600	11.020	7.150	4.500	2.110	2.012	2.730	26
27	0.607	3.097	3.880	13.200	14.400	11.020	9.860	6.500	4.250	2.015	1.940	4.800	27
28	0.616	3.035	6.000	16.100	11.310	10.150	10.440	6.100	4.125	2.015	1.940	3.832	28
29	0.599	4.270	8.450	35.000	10.730	9.570	12.650	6.500	3.875	1.825	1.868	3.074	29
30	0.616	7.000	12.300	39.500	11.310	-	11.600	6.500	3.750	1.635	1.724	2.730	30
31	-	5.030	-	33.000	11.310	-	17.050	-	3.875	-	1.580	2.472	31
	21.850	64.200	185.780	541.140	338.160	300.590	296.560	346.850	164.540	93.315	52.320	56.952	
	0.728	2.073	6.193	17.456	10.908	10.365	9.566	11.562	5.308	3.110	1.688	1.837	
										Annual Total ( )		2,462.317	

STATION 2 Corellama

RIVER, IN THE BASIN OF _____ ELEVATION 2,380 m UNIT Cu. m/sec-day YEAR 1964 - 1965

DATE	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	DATE
1	2.300	3.410	4.250	4.075	7.750	3.200	9.200	27.000	25.300	3.150	1.500	1.161	1
2	2.160	3.495	5.800	3.550	7.015	2.900	8.000	20.500	18.700	2.800	1.434	1.161	2
3	1.950	3.070	7.650	3.550	8.270	2.900	7.400	17.000	15.000	2.800	1.434	1.150	3
4	1.860	2.825	6.600	5.900	8.010	3.500	7.000	15.000	12.600	2.650	1.434	1.150	4
5	1.770	2.600	16.300	4.800	7.015	4.580	15.100	16.500	11.400	2.500	1.920	1.096	5
6	1.680	2.375	14.150	4.800	9.830	4.220	21.800	16.100	9.900	2.400	1.623	1.096	6
7	1.460	2.225	9.970	4.250	14.500	3.350	28.700	36.200	9.200	2.400	1.623	1.147	7
8	1.420	2.300	9.050	3.900	10.350	3.050	81.000	32.100	9.200	2.400	1.500	1.147	8
9	1.380	2.450	10.700	3.025	9.050	2.600	41.800	27.250	9.900	2.200	1.500	1.196	9
10	1.340	4.550	9.970	2.850	10.050	2.450	27.000	23.500	9.900	2.200	1.500	1.196	10
11	1.300	3.495	8.750	2.850	11.600	3.680	24.000	22.000	10.000	2.200	1.533	1.105	11
12	1.300	3.070	11.050	2.500	8.790	3.500	22.200	24.100	10.850	2.200	1.533	1.100	12
13	1.260	3.240	9.300	3.200	7.260	3.050	16.000	21.850	12.050	2.200	1.546	1.100	13
14	1.220	4.950	11.050	3.200	6.525	5.300	29.000	26.000	9.200	2.500	1.318	1.050	14
15	1.180	12.400	11.820	4.075	5.545	9.480	30.000	22.000	8.800	2.400	1.318	1.139	15
16	1.140	11.700	12.500	3.900	5.790	6.800	24.000	18.000	8.200	2.200	1.282	1.139	16
17	1.140	9.600	9.970	6.450	7.015	5.550	22.000	15.000	7.750	1.900	1.282	1.139	17
18	1.140	5.750	8.750	5.625	7.260	4.940	21.500	12.100	6.650	1.900	1.258	1.139	18
19	1.220	3.750	25.800	7.300	6.035	7.050	29.000	11.250	5.900	1.900	1.258	1.139	19
20	1.180	3.240	27.150	7.000	5.300	7.800	28.000	10.050	5.600	1.900	1.174	1.139	20
21	1.180	2.900	16.750	4.800	4.440	14.540	27.500	9.500	4.950	1.650	1.174	1.050	21
22	1.260	2.675	14.590	4.800	3.795	11.400	22.350	8.150	4.950	1.800	1.350	1.050	22
23	1.420	2.600	14.590	5.075	3.580	13.920	17.400	7.500	4.600	1.800	1.350	1.050	23
24	1.860	2.675	9.300	5.075	3.365	17.330	14.000	7.200	4.300	1.800	1.350	1.050	24
25	1.950	3.070	9.300	7.000	3.795	14.230	12.200	8.300	4.100	1.800	1.350	1.050	25
26	2.500	3.240	9.300	9.700	5.085	11.150	10.500	15.300	3.800	1.650	1.400	1.050	26
27	2.900	3.240	7.350	19.300	5.545	10.050	17.500	12.250	3.600	1.650	1.426	1.050	27
28	2.700	4.350	6.800	16.850	4.225	8.920	39.500	12.200	4.100	1.650	1.359	1.050	28
29	2.230	4.550	6.600	14.800	3.580	-	40.500	11.850	3.950	1.650	1.359	1.050	29
30	2.600	3.750	5.200	10.930	3.150	-	27.200	12.000	3.350	1.450	1.359	1.050	30
31	-	3.950	-	8.500	3.580	-	24.000	-	3.350	-	1.359	1.050	31
	50.000	127.495	330.360	193.630	207.100	191.440	745.350	517.750	261.150	63.700	43.806	34.239	
	1.661	4.113	11.012	6.246	6.681	6.837	24.044	17.258	8.424	2.123	1.413	1.104	

Annual Total ( ) 2,766.020

STATION 2 Corellama

RIVER, IN THE BASIN OF _____ ELEVATION 2,380 m UNIT Cu. m/sec-day YEAR 1965 - 1966

DATE	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	DATE
1	0.700	2.480	5.500	5.500	56.000	7.900	6.200	4.000	5.500	3.070	1.540	1.000	1
2	0.700	2.700	4.800	5.000	48.000	6.200	8.500	3.800	5.200	2.940	1.780	1.080	2
3	0.800	2.480	4.600	5.000	31.000	6.900	13.500	5.200	7.100	3.070	2.476	1.430	3
4	1.100	2.240	4.200	5.200	20.000	8.500	9.500	5.200	9.500	2.588	1.940	1.360	4
5	1.400	2.000	6.300	5.500	19.000	20.500	9.500	6.300	9.500	2.356	1.700	1.200	5
6	1.220	1.870	9.800	4.800	17.500	15.000	7.000	4.600	9.500	2.100	1.540	1.080	6
7	1.350	1.750	6.000	9.000	16.000	13.200	8.600	3.600	8.700	2.020	1.460	1.280	7
8	1.220	1.610	9.500	8.600	15.000	10.500	8.500	3.400	6.700	1.940	1.380	1.200	8
9	1.870	1.750	14.500	6.000	16.000	10.700	8.650	14.400	5.500	2.020	1.240	1.280	9
10	1.740	1.750	14.600	5.600	25.000	8.500	9.000	15.800	5.500	2.100	1.240	1.200	10
11	2.240	2.400	15.000	4.800	25.500	8.900	9.500	10.820	7.500	2.020	1.240	1.080	11
12	1.870	2.700	16.800	4.000	22.000	6.500	6.500	9.500	6.300	2.228	1.240	1.080	12
13	1.740	4.200	13.500	3.500	19.000	6.700	7.000	8.300	5.500	2.020	1.240	1.280	13
14	1.740	8.600	14.200	5.500	17.000	6.200	5.500	9.100	5.900	1.940	1.240	1.280	14
15	1.740	11.800	15.000	6.500	14.500	6.800	4.800	9.500	6.300	1.860	1.240	1.200	15
16	1.600	11.300	22.500	7.600	13.500	6.500	4.200	8.700	6.700	1.780	1.240	1.080	16
17	1.500	11.600	46.000	6.000	12.000	11.250	3.900	9.100	11.150	1.700	1.240	1.080	17
18	1.350	11.600	52.000	12.200	9.000	9.500	3.750	6.700	9.500	1.620	1.180	1.080	18
19	1.350	10.500	45.000	13.800	8.500	8.500	5.850	5.900	7.100	1.540	1.120	1.080	19
20	1.350	10.700	32.000	9.000	8.000	8.800	9.500	5.900	5.900	1.540	1.120	1.200	20
21	1.350	8.600	27.000	35.000	8.000	8.900	11.750	10.160	5.500	1.540	1.060	1.080	21
22	1.220	40.000	23.000	29.000	21.000	11.100	9.800	6.300	4.900	1.510	1.060	1.080	22
23	1.220	55.000	15.500	23.800	15.000	9.500	8.650	5.500	5.200	1.460	1.060	1.200	23
24	1.220	30.000	13.200	21.600	14.500	6.900	7.750	5.500	1.460	1.460	1.060	1.200	24
25	1.100	15.300	11.000	20.000	14.200	7.500	6.800	6.700	7.100	1.540	1.060	1.080	25
26	1.350	16.000	9.700	16.300	12.100	6.500	7.130	10.160	7.500	1.700	1.120	0.960	26
27	1.870	15.000	8.000	13.000	5.000	6.500	6.800	7.100	6.300	1.860	1.180	0.960	27
28	2.000	19.000	5.600	10.800	8.800	6.300	6.200	4.600	4.900	1.780	1.180	0.960	28
29	2.960	12.900	5.500	10.000	9.500	-	5.500	4.000	4.000	1.700	1.120	0.960	29
30	2.200	10.500	4.500	8.500	7.500	-	4.800	4.300	4.000	1.620	1.180	0.960	30
31	-	9.300	-	10.800	8.500	-	4.500	-	3.000	-	1.240	0.960	31
	45.070	337.030	474.800	331.900	536.600	250.750	229.130	214.140	202.850	58.652	40.716	34.950	
	1.502	10.872	15.827	10.706	17.310	8.955	7.391	7.138	6.543	1.955	1.313	1.127	

Annual Total ( ) 2,756.588

STATION 2 Corellama

RIVER, IN THE BASIN OF _____ ELEVATION 2,380 m UNIT Cu. m/sec-day YEAR 1966 - 1967

DATE	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	DATE
1	1.000	0.920	10.960	10.350	3.400	25.300	37.230	17.800	9.200	4.500	1.600	1.300	1
2	1.080	1.400	9.400	8.020	3.400	18.750	28.100	14.900	8.300	5.108	1.600	1.300	2
3	0.960	3.000	8.500	7.050	6.500	14.360	24.500	15.300	7.650	5.549	1.600	1.300	3
4	1.280	4.000	8.020	7.300	5.500	15.020	20.500	12.000	7.400	5.758	1.530	1.300	4
5	1.280	4.500	7.780	6.500	7.000	12.475	23.700	10.250	6.550	3.679	1.530	1.300	5
6	1.200	5.750	8.500	5.900	7.800	11.740	21.700	9.200	6.550	3.195	1.700	1.300	6
7	1.080	4.000	12.150	5.560	6.400	13.000	22.500	8.500	6.550	3.615	1.700	1.240	7
8	1.080	3.500	10.320	6.100	6.100	25.300	24.100	7.900	6.550	3.717	1.700	1.240	8
9	1.000	3.150	8.800	6.100	4.900	35.000	22.900	7.000	6.350	3.531	1.700	1.240	9
10	1.000	4.850	9.700	5.900	7.200	20.500	19.100	6.800	6.550	3.109	1.700	1.240	10
11	1.000	7.900	11.880	5.560	7.600	15.680	17.350	6.100	6.550	2.887	1.700	1.210	11
12	1.000	8.200	9.400	5.200	7.800	13.565	16.670	5.900	6.350	2.730	1.700	1.210	12
13	1.000	26.500	7.040	4.960	9.000	10.575	24.500	5.450	6.550	2.500	2.110	1.240	13
14	1.080	22.000	5.600	4.600	9.900	10.125	22.500	6.100	8.500	2.500	3.046	1.240	14
15	0.960	14.600	4.900	4.850	8.800	9.450	48.000	6.550	8.500	2.395	3.294	1.240	15
16	0.850	11.800	4.500	4.000	8.200	8.600	60.500	6.350	6.550	2.500	2.554	1.240	16
17	0.850	12.000	4.600	3.880	9.675	8.200	42.500	7.650	9.700	2.500	2.567	1.240	17
18	1.080	11.800	4.600	3.760	10.125	7.400	33.000	9.500	11.700	2.250	2.380	1.240	18
19	2.500	13.400	5.200	3.650	11.985	8.400	27.300	12.300	9.000	2.050	2.050	1.210	19
20	1.890	18.500	5.000	3.650	12.230	8.800	21.700	19.150	7.400	2.050	1.950	1.240	20
21	1.400	20.100	4.900	3.760	10.800	9.000	18.050	13.000	7.200	1.860	2.050	1.240	21
22	1.400	11.200	4.900	3.760	9.225	11.250	15.350	12.350	7.200	1.700	2.942	1.240	22
23	1.490	6.880	6.520	3.650	9.000	15.020	13.455	15.300	7.000	1.700	2.806	1.240	23
24	1.430	6.000	7.040	3.500	8.800	24.500	11.985	15.700	7.000	1.700	2.250	1.240	24
25	1.300	6.450	12.440	3.320	8.200	129.050	11.250	45.650	6.800	1.700	2.050	1.240	25
26	1.280	6.650	12.700	3.240	9.000	95.500	11.025	45.650	6.550	1.530	1.950	1.218	26
27	1.200	6.000	13.000	3.400	9.675	77.500	10.125	25.000	6.550	1.530	1.860	1.582	27
28	1.080	5.500	16.050	3.400	8.800	52.000	15.680	19.150	6.550	1.530	1.700	1.300	28
29	0.960	5.000	16.800	3.500	8.000	-	20.500	14.900	6.550	1.530	1.700	1.300	29
30	0.960	4.750	15.000	3.400	22.500	-	28.500	11.400	6.550	1.530	1.700	1.240	30
31	-	12.000	-	3.320	15.200	-	24.500	-	6.550	-	1.530	1.428	31
	35.670	272.300	266.200	151.220	272.715	706.060	738.770	413.200	226.950	82.433	62.249	39.428	
	1.189	8.784	8.873	4.878	8.797	25.216	23.831	13.773	7.321	2.748	2.008	1.272	

Annual Total ( ) 3,267.195

STATION 2 Corellama

RIVER, IN THE BASIN OF _____ ELEVATION 2,380 m UNIT Cu. m/sec-day YEAR 1967 - 1968

DATE	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	DATE
1	1.250	1.517	8.635	2.250	3.475	7.267	13.396	4.792	19.858	1.650	0.933	0.850	1
2	1.250	1.387	6.140	2.200	3.200	7.242	10.571	4.442	3.842	1.558	0.970	0.800	2
3	1.204	1.833	4.925	2.200	3.650	10.308	20.250	4.012	3.237	1.550	0.992	0.800	3
4	1.146	1.587	4.258	2.200	3.525	6.867	15.000	3.950	3.083	1.550	0.996	0.800	4
5	1.150	1.437	3.750	2.108	3.500	7.000	13.917	4.175	2.900	1.550	1.170	0.800	5
6	1.150	1.371	3.291	2.025	3.500	6.308	19.750	3.992	2.800	1.704	1.288	0.820	6
7	1.050	1.350	3.125	2.058	3.425	7.475	21.458	3.621	2.800	1.650	1.250	1.048	7
8	1.050	1.442	4.133	2.050	3.200	11.783	25.025	3.412	2.689	1.558	1.245	0.950	8
9	1.050	1.421	6.326	2.604	3.200	16.592	39.917	4.133	2.625	1.701	1.225	0.883	9
10	1.050	1.503	4.433	5.788	3.200	22.416	32.500	4.229	2.625	1.716	1.154	0.858	10
11	1.050	2.775	3.472	8.442	3.200	14.225	91.500	4.383	2.606	1.576	1.090	0.867	11
12	1.050	4.167	3.205	8.192	3.200	11.683	43.000	4.094	2.787	1.550	1.118	1.032	12
13	1.133	3.433	2.925	2.533	2.792	14.783	29.709	4.068	3.604	1.550	1.108	1.032	13
14	1.150	3.533	2.805	6.867	2.517	11.433	24.958	4.183	3.596	1.550	1.037	0.979	14
15	1.150	2.833	3.016	5.575	6.417	9.500	22.083	4.054	3.621	1.550	1.035	0.931	15
16	1.150	2.250	4.433	4.175	4.325	13.167	22.500	3.816	3.483	1.550	0.987	0.987	16
17	1.150	2.200	5.620	4.020	3.625	10.567	28.750	3.702	3.712	1.250	0.967	0.925	17
18	1.150	2.283	7.282	6.838	3.225	10.033	22.833	3.310	3.692	1.142	0.996	0.900	18
19	1.150	2.867	10.433	6.792	3.200	17.366	20.567	3.158	3.425	1.250	1.020	0.925	19
20	1.150	2.558	9.426	5.692	3.200	20.516	15.771	3.050	3.683	1.290	1.010	0.975	20
21	1.150	2.592	8.050	4.521	2.908	20.650	12.521	2.808	3.700	1.250	0.971	0.890	21
22	1.104	2.683	7.246	4.450	2.808	15.008	11.312	2.769	3.304	1.257	0.975	0.890	22
23	1.100	3.667	5.685	3.942	3.550	11.158	9.954	2.698	2.867	1.297	0.962	0.890	23
24	1.100	3.483	4.881	4.313	7.725	9.183	9.800	2.752	2.489	1.240	0.958	0.912	24
25	1.100	6.283	4.166	3.733	11.833	7.700	9.200	2.614	2.425	1.106	0.967	0.912	25
26	1.100	14.208	3.296	3.654	17.750	6.733	8.242	2.481	2.327	1.022	0.943	0.987	26
27	1.100	11.541	3.433	4.579	14.667	6.917	7.608	2.400	2.242	0.979	0.915	0.937	27
28	1.100	13.250	3.158	7.675	10.316	11.000	6.950	2.269	2.179	0.975	0.868	0.925	28
29	1.129	15.958	2.883	6.171	10.708	9.583	6.800	2.350	2.071	0.987	0.877	0.912	29
30	1.129	14.333	2.800	4.529	8.000	-	6.700	2.500	1.950	0.992	0.800	0.890	30
31	-	14.417	-	3.800	6.650	-	6.400	-	1.835	-	0.800	0.925	31
	33.745	146.242	147.241	135.985	166.491	334.463	628.942	104.217	108.057	41.552	31.627	28.232	
	1.125	4.717	4.908	4.387	5.371	11.533	20.288	3.474	3.486	1.385	1.020	0.911	

Annual Total ( ) 1,906.794

STATION 2 Corellama

RIVER, IN THE BASIN OF _____ ELEVATION 2,380 m UNIT Cu. m/sec-day YEAR 1968 - 1969

DATE	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	DATE
1	2.025	12.791	6.566	1.950	2.200	2.420	4.779	11.837	5.233	1.590	1.753	0.860	1
2	2.250	7.375	5.689	1.925	2.233	2.300	4.700	11.000	4.725	1.707	1.553	0.860	2
3	3.655	5.974	5.089	1.842	2.200	2.275	8.367	11.241	4.275	1.976	1.472	0.860	3
4	3.368	5.472	4.496	1.750	2.127	2.550	6.792	23.783	4.408	2.242	1.340	0.860	4
5	2.569	10.836	4.240	1.750	2.056	3.654	5.942	21.692	4.491	2.469	1.240	0.793	5
6	1.883	11.625	4.080	1.750	1.820	3.625	8.000	26.341	4.691	2.342	1.220	0.760	6
7	1.607	10.133	4.438	1.750	1.750	26.471	11.975	26.333	4.076	2.490	1.182	0.760	7
8	1.412	11.841	5.953	1.750	1.732	12.708	15.500	20.704	3.761	2.286	1.113	0.776	8
9	1.305	15.500	6.573	1.750	1.130	14.217	15.983	18.104	3.600	2.426	1.169	0.760	9
10	1.310	10.108	5.773	1.750	1.600	20.383	10.167	20.984	3.575	1.762	1.206	0.750	10
11	1.256	8.583	9.025	1.937	1.732	21.450	7.658	23.525	3.450	1.747	1.243	0.750	11
12	1.165	7.258	10.833	2.382	1.805	24.750	6.267	56.208	3.270	2.637	1.160	0.760	12
13	3.142	7.875	7.850	2.703	3.100	29.166	5.508	31.358	3.260	3.228	1.150	0.760	13
14	2.689	4.100	7.633	3.394	4.942	27.666	6.033	23.500	3.260	3.195	1.080	0.760	14
15	1.973	14.266	7.838	8.473	13.958	19.216	8.933	28.183	3.260	3.099	1.005	0.760	15
16	1.553	11.533	6.883	5.303	27.000	15.283	7.308	29.075	3.148	2.671	1.001	0.760	16
17	1.382	8.850	5.510	3.991	32.558	11.983	6.950	20.366	2.984	2.419	0.925	0.750	17
18	1.399	7.600	4.731	3.570	16.683	10.733	6.133	16.565	2.762	2.212	0.926	0.758	18
19	1.922	6.591	4.180	4.374	13.500	9.750	5.575	13.380	2.573	2.710	0.945	0.760	19
20	3.336	5.483	3.858	4.734	7.550	7.800	5.050	11.187	1.693	1.855	0.955	0.750	20
21	3.006	4.800	3.788	3.902	6.266	7.166	6.108	12.883	3.265	1.702	0.965	0.750	21
22	3.078	4.971	3.600	4.783	4.762	6.166	7.258	10.479	2.590	1.602	0.910	0.760	22
23	2.343	4.410	3.208	3.830	4.062	5.350	5.529	9.045	2.283	1.479	0.907	0.872	23
24	2.025	3.985	3.220	3.020	3.525	7.783	4.912	7.733	2.480	1.450	0.880	0.864	24
25	1.709	4.025	3.905	2.603	3.258	9.366	4.600	8.783	2.315	1.469	0.897	0.864	25
26	1.734	5.456	3.273	2.271	3.053	7.400	4.708	7.433	2.300	1.380	0.860	0.826	26
27	2.143	8.963	3.006	2.113	2.783	6.533	4.933	6.500	1.898	1.355	0.876	0.760	27
28	2.671	8.071	2.832	2.060	2.820	5.400	5.683	6.066	2.105	1.355	0.880	0.760	28
29	4.402	8.375	2.675	2.060	2.733	-	10.783	7.216	1.832	1.547	0.910	0.761	29
30	6.408	7.958	2.441	2.252	2.533	-	15.000	6.375	1.650	2.099	0.872	0.710	30
31	-	6.733	-	2.637	2.400	-	14.090	-	1.534	-	0.860	0.750	31
	70.720	251.541	153.186	90.359	179.871	323.564	241.134	527.879	96.747	62.501	33.455	24.284	
	2.357	8.114	5.106	2.915	5.802	11.555	7.779	17.596	3.121	2.083	1.079	0.783	

Annual Total ( ) 2,055.241

STATION 2 Corellama

RIVER, IN THE BASIN OF _____ ELEVATION 2,380 m UNIT Cu. m/sec-day YEAR 1969 - 1970

DATE	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	DATE
1	0.840	0.850	2.300	32.645	7.626	20.698	16.900	4.013	12.082	4.760	3.060	1.410	1
2	0.797	0.850	2.342	32.910	6.236	18.080	15.261	3.860	8.165	4.430	3.060	1.320	2
3	0.750	0.842	2.278	29.600	5.476	13.608	14.785	4.990	7.373	4.160	2.766	1.297	3
4	0.746	0.847	2.420	33.872	5.140	12.302	9.581	6.925	14.955	3.947	2.466	1.237	4
5	0.713	0.850	3.075	26.540	5.185	10.828	8.220	9.803	20.140	3.648	2.140	1.140	5
6	0.712	0.823	2.608	27.068	6.282	8.527	8.638	18.487	13.238	3.420	2.140	1.117	6
7	0.728	0.780	2.275	19.598	9.381	7.500	7.866	21.927	9.440	3.772	2.075	1.110	7
8	0.760	0.935	1.998	23.302	10.125	7.203	8.143	11.665	9.966	4.163	2.054	1.080	8
9	0.758	1.253	1.880	20.408	8.440	9.070	7.686	8.433	12.300	3.960	1.929	1.029	9
10	0.816	1.062	2.256	15.888	7.103	7.380	7.946	8.646	17.611	3.800	2.373	1.032	10
11	0.710	0.965	5.268	13.968	6.450	6.203	21.673	8.806	11.843	3.435	2.420	1.000	11
12	0.740	0.929	5.897	11.276	10.910	5.555	21.501	9.480	9.978	3.300	2.513	1.000	12
13	0.737	1.212	4.175	9.875	18.058	5.230	23.415	9.953	8.613	3.015	2.095	0.957	13
14	0.690	1.667	5.630	8.415	18.415	4.750	31.268	12.588	7.540	3.373	1.862	0.967	14
15	0.700	1.957	19.683	6.903	15.781	4.387	34.698	16.011	7.936	3.150	1.734	0.980	15
16	0.701	4.112	12.317	6.283	12.051	4.585	26.090	16.711	10.858	2.805	1.660	0.960	16
17	0.805	4.213	8.200	5.735	9.336	6.753	19.081	20.750	12.550	2.700	1.660	0.920	17
18	0.810	3.783	7.533	5.095	7.503	6.074	14.658	19.236	11.948	2.745	1.660	0.928	18
19	0.799	2.637	6.350	4.678	7.336	8.918	11.583	19.130	10.633	2.955	1.605	0.890	19
20	0.750	2.042	5.502	5.942	19.510	9.465	9.513	13.675	8.986	2.700	1.450	0.860	20
21	0.743	2.232	5.057	16.077	17.066	11.045	8.328	10.553	9.092	2.630	1.450	0.790	21
22	0.797	2.846	5.433	14.906	16.645	6.920	7.380	8.750	9.665	2.327	1.532	0.860	22
23	0.902	5.473	11.675	13.685	15.255	6.183	6.630	7.750	7.716	2.140	1.587	0.860	23
24	0.895	11.892	20.192	10.975	11.418	10.275	6.303	7.060	6.670	2.562	1.391	0.860	24
25	1.057	8.683	26.650	11.985	11.295	15.159	6.300	7.553	5.933	6.360	1.308	0.860	25
26	1.118	6.908	24.250	13.543	9.800	15.455	5.476	7.633	5.410	8.740	1.408	0.860	26
27	1.324	4.977	27.785	13.248	8.710	14.361	4.810	6.100	4.900	5.510	1.449	0.860	27
28	1.460	3.796	55.583	10.790	10.786	16.755	4.635	9.946	4.665	4.553	1.824	0.895	28
29	1.055	3.060	45.516	9.173	8.733	-	4.333	7.033	4.227	3.661	1.615	1.128	29
30	0.916	2.605	35.683	7.833	13.588	-	4.120	10.460	4.120	3.330	1.450	1.530	30
31	-	2.183	-	6.907	25.341	-	4.496	-	4.120	-	1.450	1.395	31
	25.329	87.264	361.811	469.123	344.767	273.269	381.314	327.927	292.673	112.051	59.186	32.102	
	0.844	2.815	12.060	15.133	11.121	9.769	12.300	10.931	9.441	3.735	1.909	1.035	

Annual Total ( ) 2,766.816

STATION 2 Corellama

RIVER, IN THE BASIN OF _____ ELEVATION 2,380 m UNIT Cu. m/sec-day YEAR 1970 - 1971

DATE	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	DATE
1	1.320	1.538	28.003	55.560	13.014	10.030	19.640	66.616	7.880	6.080	4.350	1.650	1
2	1.535	2.306	22.125	69.833	12.970	9.966	30.330	74.400	7.006	5.920	4.362	1.526	2
3	1.834	3.038	19.632	75.933	10.386	13.231	39.639	60.266	7.240	5.613	4.454	1.499	3
4	1.380	2.785	42.399	77.050	10.504	12.728	38.043	56.083	9.095	5.480	4.330	1.420	4
5	1.147	3.068	33.806	40.980	14.595	9.820	45.175	60.017	10.375	5.640	4.024	1.332	5
6	1.021	2.563	29.027	27.850	20.977	8.373	32.171	43.754	22.670	5.426	3.890	1.396	6
7	1.000	1.801	24.623	23.895	24.523	8.490	22.340	36.137	24.210	6.353	3.832	1.482	7
8	1.000	1.604	24.499	17.310	20.267	9.878	18.500	29.250	22.533	6.553	3.602	1.526	8
9	1.598	1.932	24.289	15.150	15.498	11.461	15.890	28.500	16.340	5.793	3.295	1.658	9
10	1.270	4.948	35.076	16.848	13.340	8.306	14.453	22.185	12.933	7.620	3.185	1.552	10
11	1.133	5.405	44.245	13.740	12.810	7.415	21.218	38.500	11.175	8.215	2.795	1.408	11
12	1.021	6.358	34.350	12.610	11.450	7.100	24.460	33.275	9.671	15.371	2.435	1.897	12
13	1.000	5.330	25.922	11.925	10.403	6.200	58.659	31.516	8.801	16.346	2.300	1.977	13
14	1.083	3.748	20.921	11.820	13.338	6.380	46.412	34.141	7.738	15.550	2.220	1.861	14
15	1.185	2.998	23.214	18.990	20.540	5.880	43.191	43.625	7.690	14.170	1.980	2.017	15
16	1.290	5.270	17.820	18.963	24.154	5.720	40.860	47.225	8.125	10.767	2.060	1.879	16
17	1.117	7.935	13.661	16.360	21.336	8.543	49.621	34.658	8.225	8.705	1.966	1.667	17
18	1.050	6.440	15.337	15.741	15.625	14.683	63.952	28.166	7.200	7.875	2.073	1.526	18
19	1.038	4.508	13.145	14.371	13.010	26.000	64.480	22.625	7.320	7.400	1.926	1.464	19
20	1.000	3.590	14.468	18.423	10.574	28.800	55.769	20.005	6.800	6.780	1.940	1.491	20
21	1.000	3.127	20.687	15.258	9.306	37.605	47.569	17.600	6.720	6.386	1.726	1.364	21
22	1.263	4.187	20.697	12.700	8.514	74.425	56.394	18.025	6.680	6.227	1.660	1.284	22
23	1.245	4.027	16.664	11.153	8.760	49.875	55.148	16.100	8.403	5.813	1.660	1.228	23
24	1.094	4.101	12.777	9.516	10.373	59.175	56.676	15.400	14.136	5.720	1.660	1.204	24
25	1.050	4.217	11.282	8.630	8.700	34.470	57.491	12.759	13.045	5.467	1.561	1.132	25
26	1.004	5.378	19.297	8.606	7.658	28.218	57.143	12.633	10.912	5.173	1.590	1.188	26
27	1.009	10.261	17.588	11.333	7.572	22.066	51.266	11.233	9.575	5.080	1.797	1.228	27
28	1.216	13.617	21.339	10.626	9.957	19.957	48.780	10.300	8.415	4.600	3.124	1.228	28
29	1.380	8.342	26.586	9.073	19.741	-	33.962	10.300	7.635	4.520	2.765	1.204	29
30	1.425	33.233	33.771	9.816	16.190	-	54.264	9.188	7.140	4.440	2.246	1.132	30
31	-	32.042	-	14.140	12.932	-	91.193	-	6.440	-	1.873	1.132	31
	35.708	199.697	707.250	694.203	429.617	546.058	1,354.909	944.482	322.148	225.083	82.678	45.552	
	1.190	6.442	23.575	22.394	13.859	19.502	43.707	31.483	10.392	7.503	2.667	1.469	

Annual Total ( ) 5,587.385

STATION 2 Corellama

RIVER, IN THE BASIN OF _____ ELEVATION 2,380 m UNIT Cu. m/sec-day YEAR 1971 - 1972

DATE	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	DATE
1	1.210	1.145	18.643	33.045	13.512	6.518	16.316	14.866	19.640	7.115	2.621	1.700	1
2	1.304	1.104	15.981	73.102	11.432	5.809	9.366	13.400	15.000	6.542	2.493	1.575	2
3	1.269	1.300	10.970	51.051	10.685	5.330	6.720	11.906	12.767	6.071	2.389	1.533	3
4	1.210	3.802	10.876	31.593	14.406	4.815	7.620	9.924	11.475	5.903	2.162	1.500	4
5	1.210	5.701	9.105	21.522	14.538	4.425	63.943	9.490	10.313	5.549	2.139	1.666	5
6	1.331	4.041	9.170	20.250	13.355	4.620	25.000	8.409	10.025	5.210	1.844	1.758	6
7	1.592	3.216	8.375	21.125	12.903	9.151	21.116	7.420	11.975	4.874	3.058	1.708	7
8	1.574	4.513	22.256	10.977	14.972	15.926	33.291	6.884	17.633	4.608	2.230	1.633	8
9	1.626	7.606	13.466	9.290	12.277	26.760	107.266	9.647	12.203	4.608	2.447	1.575	9
10	1.626	5.761	10.210	8.210	10.052	24.620	53.558	37.323	10.823	4.608	7.063	1.600	10
11	1.626	4.655	9.088	6.812	9.222	14.918	30.925	49.053	12.377	4.664	4.145	1.575	11
12	1.704	5.210	11.493	6.225	10.266	10.711	25.200	36.760	10.169	4.454	3.193	1.583	12
13	1.678	4.385	10.380	4.669	11.630	8.660	21.775	25.510	9.259	4.076	2.750	1.566	13
14	1.522	4.978	5.540	4.639	12.506	7.272	21.450	42.076	8.442	5.197	2.389	1.500	14
15	1.522	5.541	4.940	4.384	9.987	6.346	40.250	40.928	8.023	4.314	2.252	1.475	15
16	1.522	4.325	8.126	4.412	8.047	6.020	75.000	33.708	9.054	3.936	2.162	1.425	16
17	1.444	3.506	6.876	4.370	6.773	5.241	43.000	34.330	8.553	3.782	2.060	1.300	17
18	1.321	3.605	5.933	4.966	6.029	4.848	37.516	29.500	7.802	3.656	1.958	1.300	18
19	1.314	5.008	5.633	11.829	5.620	4.635	44.316	26.645	7.129	3.484	1.901	1.300	19
20	1.217	6.623	6.935	15.260	6.986	4.200	69.700	29.255	9.878	3.383	1.856	1.300	20
21	1.114	4.805	9.210	27.462	6.639	3.990	73.400	25.850	10.886	3.263	1.822	1.300	21
22	1.106	4.671	15.651	21.206	5.948	3.765	57.166	28.100	17.066	3.178	1.776	1.358	22
23	1.097	5.970	11.996	16.716	9.550	3.495	38.933	26.450	35.000	3.026	1.697	1.450	23
24	1.080	6.713	10.358	14.066	7.468	3.315	27.816	27.570	24.120	2.939	1.584	1.400	24
25	1.166	12.025	7.105	17.430	6.734	3.660	30.350	35.560	19.553	3.101	1.584	1.400	25
26	1.235	19.550	8.168	23.770	6.029	4.200	27.790	42.606	15.000	2.841	1.584	1.433	26
27	1.329	13.728	9.101	18.300	5.228	4.320	28.854	37.803	11.941	2.820	1.504	1.425	27
28	1.321	11.131	16.656	17.300	4.610	7.042	36.200	40.583	10.147	2.798	1.527	1.433	28
29	1.556	14.713	14.960	27.609	5.531	21.492	33.000	37.430	9.149	2.603	1.584	1.425	29
30	1.418	16.341	17.245	21.395	7.715	-	24.625	27.180	8.133	2.473	1.584	1.400	30
31	-	15.705	-	16.366	7.384	-	20.091	-	7.603	-	1.584	1.400	31
	41.244	211.377	324.446	569.351	288.034	236.101	1,151.533	806.166	391.138	125.076	70.942	45.996	
	1.375	6.818	10.815	18.366	9.291	8.141	37.146	26.872	12.617	4.169	2.288	1.483	

Annual Total ( ) 4,261.407

STATION 2 Corellama

RIVER, IN THE BASIN OF _____ ELEVATION 2,380 m UNIT Cu. m/sec-day YEAR 1972 - 1973

DATE	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	DATE
1	1.421	1.679	1.424	11.474	3.180	6.798	8.964	56.883	14.045	4.206	4.509	10.888	1
2	1.557	1.987	1.416	10.864	3.135	6.226	10.329	104.125	13.347	3.835	3.642	11.553	2
3	1.974	3.801	1.229	13.982	3.000	5.824	10.206	70.625	11.380	3.601	3.450	11.743	3
4	1.830	4.004	1.177	12.256	3.195	5.854	10.477	40.750	12.317	3.283	3.335	8.366	4
5	1.618	11.242	1.125	10.827	3.255	15.298	9.923	35.667	16.948	3.242	3.356	6.583	5
6	1.512	8.785	1.090	9.579	3.450	19.936	10.937	35.833	11.560	2.992	3.169	5.254	6
7	1.512	5.055	1.183	7.697	3.255	25.451	18.075	40.891	9.927	2.950	3.023	4.489	7
8	1.466	3.794	1.497	8.520	3.645	21.158	19.142	38.833	9.202	2.950	2.877	3.935	8
9	1.330	3.752	1.610	15.123	4.266	16.017	16.191	38.500	8.212	2.762	2.752	3.483	9
10	1.330	3.031	1.699	18.597	12.575	12.749	14.877	36.708	7.777	2.700	2.596	3.240	10
11	1.297	3.290	3.392	28.195	10.394	10.759	11.812	34.042	7.026	2.669	2.439	3.071	11
12	1.276	3.451	5.781	19.404	11.686	8.772	10.483	33.875	8.597	2.502	2.314	2.892	12
13	1.349	3.164	8.477	14.568	12.756	7.145	24.826	39.500	7.112	2.439	2.183	2.892	13
14	1.466	2.870	11.230	16.387	17.329	6.176	26.679	36.792	6.477	2.273	2.200	2.798	14
15	1.587	2.681	7.262	14.537	17.916	5.616	17.912	36.667	6.037	2.408	2.142	2.845	15
16	1.952	2.492	4.883	11.307	13.335	4.900	14.198	45.042	5.725	2.627	2.100	2.845	16
17	2.090	2.418	3.850	11.427	11.837	5.033	13.736	39.583	5.377	3.255	2.100	2.581	17
18	2.975	2.313	3.175	17.517	11.074	4.866	12.780	34.342	4.986	3.342	2.008	2.459	18
19	3.580	2.240	2.962	15.000	16.168	4.683	11.614	29.112	4.687	3.244	2.025	2.318	19
20	5.060	2.240	2.850	10.920	45.475	4.500	10.120	25.925	4.901	2.752	2.100	2.346	20
21	4.396	2.119	2.862	8.609	23.286	4.598	8.637	27.350	5.370	2.804	2.754	2.562	21
22	3.230	2.050	5.337	7.104	17.621	18.727	7.839	27.462	4.602	3.241	2.408	2.412	22
23	2.649	1.883	6.129	6.390	22.062	22.986	9.215	23.263	4.503	4.663	2.133	2.346	23
24	2.257	1.876	5.810	5.474	20.651	17.573	11.216	18.780	4.220	6.499	2.683	2.346	24
25	2.027	1.876	7.917	4.950	16.110	12.379	8.801	16.223	4.177	5.885	3.019	2.336	25
26	1.876	1.853	13.553	4.317	13.643	13.581	9.043	15.600	3.979	5.933	4.179	2.233	26
27	1.694	1.853	11.475	4.167	10.858	12.286	38.269	15.742	3.880	5.939	3.904	2.126	27
28	1.694	1.785	12.961	4.267	10.439	10.765	31.004	17.975	3.639	4.289	3.511	2.050	28
29	1.732	1.717	13.458	3.907	9.776	-	38.477	13.333	3.667	4.234	6.067	2.500	29
30	1.694	1.550	12.196	3.525	8.531	-	33.350	11.250	4.577	4.536	7.730	2.280	30
31	-	1.542	-	3.375	7.988	-	28.755	-	4.942	-	11.180	2.120	31
	61.431	94.393	159.010	334.266	371.191	310.656	507.907	1,040.723	223.196	108.055	103.888	122.024	
	2.047	3.045	5.300	10.782	11.979	11.094	16.384	34.690	7.199	3.601	3.351	3.936	
											Annual Total ( )	3,436.740	

STATION 2 Corellama

RIVER, IN THE BASIN OF _____ ELEVATION 2,380 m UNIT Cu. m/sec-day YEAR 1973 - 1974

DATE	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	DATE
1	2.542												1
2	3.678												2
3	3.344												3
4	3.664												4
5	2.867												5
6	3.602												6
7	5.342												7
8	3.833												8
9	3.068												9
10	2.780												10
11	2.531												11
12	2.397												12
13	2.282												13
14	2.186												14
15	2.452												15
16	5.280												16
17	5.782												17
18	9.966												18
19	6.916												19
20	19.100												20
21	40.472												21
22	25.032												22
23	15.140												23
24	17.952												24
25	17.205												25
26	16.849												26
27	19.385												27
28	13.287												28
29	10.586												29
30	8.414												30
31	-												31
	277.934												
	9.264												
											Annual Total ( )		

Daily Runoff STATION 3 Llaucano Shugar

RIVER, IN THE BASIN OF ELEVATION 2,320 m UNIT Cu. m/sec-day YEAR 1962 - 1963

DATE	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	DATE
1					-	15.650	32.450	24.650	8.395	3.875	1.733	1.793	1
2					-	17.875	34.300	20.600	8.235	3.500	1.981	1.810	2
3					-	18.850	41.450	18.500	8.320	3.500	2.331	1.700	3
4					-	19.850	45.350	51.000	18.600	3.279	2.360	1.650	4
5					-	20.200	33.650	61.000	17.500	3.310	2.459	2.100	5
6					-	16.900	27.050	55.000	16.310	3.241	2.459	1.733	6
7					-	21.250	23.450	94.250	15.000	3.267	2.459	2.105	7
8					-	14.150	24.800	94.250	14.000	3.267	1.805	1.733	8
9					-	12.975	40.150	80.800	12.365	3.267	1.805	2.100	9
10					-	12.975	55.750	72.400	8.800	3.200	1.849	1.733	10
11					-	12.700	102.900	51.000	8.800	3.531	1.715	1.512	11
12					-	14.450	78.200	55.600	8.000	3.437	1.916	1.500	12
13					-	12.150	49.750	54.400	8.800	3.040	2.500	1.500	13
14					-	8.200	38.200	34.500	5.500	3.084	2.350	1.609	14
15					-	6.850	28.600	26.300	6.400	3.084	2.288	1.659	15
16					-	6.850	27.050	24.100	7.500	3.084	2.264	1.623	16
17					-	6.550	24.800	25.750	7.600	2.946	1.943	1.608	17
18					-	6.250	24.800	20.200	6.700	2.946	2.247	1.500	18
19					-	6.700	33.000	20.200	6.200	3.044	1.985	1.500	19
20					-	7.000	36.900	21.000	5.850	3.316	1.805	1.500	20
21					-	9.900	31.900	23.000	4.000	3.284	1.955	2.036	21
22					7.450	7.450	31.900	21.800	4.900	3.100	1.955	2.059	22
23					7.600	6.550	33.650	18.500	4.500	3.000	1.955	2.200	23
24					7.000	6.400	35.600	14.500	5.000	3.000	1.800	2.100	24
25					6.400	7.600	36.250	12.800	4.700	2.921	1.810	1.800	25
26					8.050	28.600	36.250	12.000	4.600	3.034	1.770	1.600	26
27					12.150	34.950	34.300	10.800	4.500	2.739	1.700	1.500	27
28					14.750	48.250	38.200	9.500	4.700	2.348	1.700	1.380	28
29					15.050	-	30.800	8.000	3.800	2.300	1.642	1.400	29
30					12.150	-	32.450	9.000	4.200	2.300	1.642	1.400	30
31					11.050	-	32.450	-	4.200	-	1.600	1.400	31
						408.075	1,176.350	1,045.400	247.975	92.244	61.783	52.843	
						14.574	37.946	34.846	7.999	3.108	1.993	1.704	

Annual Total ( )

Daily Runoff STATION 3 Llaucano Shugar

RIVER, IN THE BASIN OF ELEVATION 2,320 m UNIT Cu. m/sec-day YEAR 1963 - 1964

DATE	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	DATE
1	1.388	2.200	10.100	19.700	49.000	17.580	16.030	41.900	11.580	5.800	1.750	2.090	1
2	1.388	2.400	11.500	22.500	43.400	19.160	18.840	47.000	11.970	5.200	1.750	2.000	2
3	1.443	3.020	19.200	25.600	34.480	19.480	16.960	34.000	12.360	5.200	1.750	1.920	3
4	1.302	2.500	45.000	26.500	30.000	17.890	14.020	28.600	12.360	5.200	1.610	1.750	4
5	1.298	2.000	28.000	29.500	25.400	18.200	13.210	23.300	21.500	5.200	1.610	1.750	5
6	1.316	1.800	17.000	28.500	21.080	26.780	12.940	20.400	18.060	6.775	1.610	1.750	6
7	1.316	1.700	12.700	22.500	19.480	25.400	12.140	17.300	14.700	5.800	1.540	1.610	7
8	1.316	1.700	10.100	20.000	16.960	28.620	11.880	26.200	11.580	5.350	1.470	1.470	8
9	1.388	1.600	8.600	13.400	15.100	25.400	11.360	36.200	10.190	5.500	1.470	1.470	9
10	1.449	1.600	7.100	10.840	13.750	22.200	10.060	32.500	8.665	6.190	1.400	1.470	10
11	1.349	1.500	6.250	9.400	18.200	19.160	10.580	31.000	7.750	6.190	1.400	1.400	11
12	1.399	1.700	5.450	10.840	24.200	16.960	15.100	25.000	7.360	5.500	1.330	1.330	12
13	1.492	2.400	4.950	27.000	22.200	14.830	14.560	22.000	6.970	5.200	1.330	1.330	13
14	1.388	2.700	4.480	32.500	19.480	15.100	16.030	20.000	6.580	5.200	1.330	1.260	14
15	1.388	2.500	4.240	30.500	20.440	15.100	14.290	19.200	5.995	5.200	1.330	1.260	15
16	1.388	4.560	3.740	28.500	16.960	15.720	12.400	20.800	5.800	5.200	1.400	1.330	16
17	1.405	8.100	3.480	47.500	15.410	14.830	12.400	21.200	5.650	4.900	1.330	1.540	17
18	1.285	6.660	3.350	33.400	16.030	16.030	12.400	16.300	5.500	4.020	1.400	1.835	18
19	1.427	4.780	3.500	26.100	18.520	16.650	18.520	14.200	5.350	3.460	1.750	1.835	19
20	1.325	3.680	4.480	28.000	16.340	20.760	19.160	12.500	5.350	3.320	2.260	1.835	20
21	1.325	3.130	5.950	23.000	14.560	28.160	16.960	11.500	6.190	3.010	4.430	1.920	21
22	1.325	3.020	13.500	19.000	13.750	26.320	14.560	11.500	5.800	2.900	6.110	2.260	22
23	1.325	2.800	12.000	15.350	12.400	24.600	12.400	10.600	5.050	2.900	5.750	3.550	23
24	1.421	3.240	9.200	12.500	11.360	32.800	11.880	12.200	5.350	2.340	3.550	8.630	24
25	1.477	3.240	7.500	15.350	12.400	29.080	14.020	12.200	5.800	2.340	2.980	10.400	25
26	1.515	4.560	6.500	22.500	14.020	26.320	14.290	13.500	5.800	2.160	2.790	9.350	26
27	1.359	5.660	6.100	23.500	20.760	21.400	34.480	13.500	5.800	2.160	2.790	14.890	27
28	1.359	5.880	7.500	31.000	17.580	18.840	31.120	12.850	5.800	2.160	3.075	14.890	28
29	1.359	6.380	11.500	72.000	16.960	16.340	49.000	13.500	5.500	1.880	3.075	10.750	29
30	1.421	12.500	15.750	70.500	17.890	-	68.500	13.500	5.200	1.880	2.695	8.630	30
31	-	9.500	-	57.000	18.840	-	42.000	-	5.350	-	2.430	7.910	31
	41.336	119.010	308.720	854.480	626.950	609.710	592.090	634.450	256.910	128.165	70.495	125.415	
	1.377	3.839	10.290	27.563	20.224	21.024	19.099	21.148	8.287	4.272	2.274	4.045	

Annual Total ( ) 4.367.731

Daily Runoff STATION 3 Llaucano Shugar

RIVER, IN THE BASIN OF ELEVATION 2,320 m UNIT Cu. m/sec-day YEAR 1964 - 1965

DATE	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	DATE
1	5.445	9.720	7.800	10.000	8.600	3.400	16.500	42.000	37.500	7.100	4.000	2.800	1
2	4.670	8.600	9.600	8.880	8.600	4.600	15.000	37.400	32.700	6.600	4.000	2.670	2
3	3.790	7.160	14.500	8.320	9.500	4.320	13.250	34.000	28.800	5.900	4.100	2.550	3
4	3.530	5.900	11.750	11.120	10.100	6.400	13.000	52.000	22.500	6.100	4.400	2.400	4
5	3.010	5.060	20.000	10.840	10.100	7.460	23.250	43.000	18.100	5.900	4.900	2.670	5
6	2.750	4.460	18.900	11.120	14.200	7.000	46.000	53.000	17.300	5.800	5.000	2.150	6
7	2.430	3.840	14.250	10.500	27.300	5.400	43.350	56.500	14.500	5.600	4.100	2.150	7
8	2.350	4.100	13.550	9.450	20.680	4.320	151.000	56.500	15.300	6.100	4.250	2.150	8
9	2.190	5.060	15.700	7.480	15.920	5.000	67.500	48.600	15.000	5.400	4.100	2.150	9
10	2.030	12.840	16.300	7.200	14.600	3.600	52.400	41.200	17.000	5.250	4.400	2.055	10
11	1.950	10.840	13.800	6.720	15.920	5.400	50.300	44.000	16.100	5.400	4.400	2.050	11
12	1.950	8.600	16.300	6.250	11.000	5.600	36.300	50.500	24.000	5.000	4.600	2.050	12
13	1.895	8.240	14.250	6.720	8.900	5.000	34.500	35.500	20.000	4.900	4.100	2.050	13
14	1.785	9.720	14.500	6.720	8.300	9.900	59.500	59.000	16.100	4.900	4.400	1.860	14
15	1.730	18.280	14.250	8.050	7.740	36.500	71.250	39.100	14.200	5.100	4.000	2.080	15
16	1.675	16.640	14.250	7.200	7.740	15.500	53.800	34.000	13.600	5.000	3.400	1.860	16
17	1.620	13.560	12.400	10.000	8.300	14.000	44.000	31.100	13.200	5.100	3.400	1.760	17
18	1.620	10.280	11.100	11.120	8.900	10.200	49.500	26.600	12.000	5.000	3.250	1.955	18
19	1.695	7.880	26.480	10.500	7.480	12.700	55.900	21.900	11.400	4.900	3.000	2.150	19
20	1.675	6.500	35.300	12.900	5.920	15.500	52.400	18.700	11.400	4.500	2.800	2.050	20
21	1.675	5.300	24.800	9.150	5.400	47.200	49.500	17.500	11.600	4.400	2.670	2.050	21
22	1.840	4.700	22.500	8.320	5.160	34.800	43.350	22.700	10.500	4.300	2.800	1.955	22
23	1.950	4.220	22.150	8.880	3.960	38.400	35.000	18.300	10.200	4.300	2.800	1.860	23
24	3.790	4.100	21.000	8.600	4.200	45.500	30.440	15.750	9.250	4.600	2.670	1.955	24
25	6.110	5.600	16.300	11.400	5.400	43.750	28.850	14.650	8.500	4.200	2.540	1.860	25
26	7.710	6.200	13.550	14.240	6.440	30.200	27.250	26.000	8.500	4.200	2.540	1.955	26
27	9.750	5.900	11.320	32.000	7.740	23.600	33.300	23.500	7.000	3.850	2.670	1.955	27
28	8.120	6.800	10.440	32.600	5.660	20.000	109.250	25.000	7.000	3.850	2.550	1.900	28
29	6.960	6.980	9.800	29.150	4.200	-	121.000	22.700	8.200	3.700	2.550	1.900	29
30	7.300	6.200	8.000	20.540	3.720	-	69.000	36.500	7.000	3.700	2.400	1.900	30
31	-	6.800	-	14.600	3.720	-	50.300	-	7.000	-	2.280	1.900	31
	104.995	240.100	474.840	370.470	285.400	465.250	1,545.940	1,047.200	465.450	150.650	109.070	64.800	
	3.499	7.745	15.828	11.950	9.206	16.616	49.869	34.906	15.014	5.021	3.518	2.090	

Annual Total ( ) 5,324.165

Daily Runoff STATION 3 Llaucano Shugar

RIVER, IN THE BASIN OF ELEVATION 2,320 m UNIT Cu. m/sec-day YEAR 1965 - 1966

DATE	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	DATE
1	1.780	6.500	12.100	6.650	80.000	16.440	11.000	8.300	15.080	6.972	3.844	1.994	1
2	1.780	6.000	9.380	6.500	60.500	11.720	29.920	9.700	18.800	6.636	6.972	2.100	2
3	1.850	5.500	5.200	6.500	33.000	10.400	26.800	11.500	21.200	5.378	4.770	2.100	3
4	1.890	5.650	7.400	7.500	30.500	32.720	20.480	12.800	28.600	5.050	3.983	2.072	4
5	2.350	5.650	13.500	7.650	33.650	38.200	14.000	12.400	21.800	4.910	3.460	2.018	5
6	2.760	5.400	25.000	7.000	31.500	29.280	11.480	9.400	15.720	4.640	3.040	1.994	6
7	2.760	5.000	15.900	13.500	27.500	25.600	11.240	8.500	17.000	4.400	2.768	2.018	7
8	3.500	4.700	28.400	11.410	29.000	22.600	11.960	12.400	12.880	4.400	2.768	2.044	8
9	4.000	4.000	29.300	8.800	28.500	19.720	13.640	21.200	10.900	4.400	2.360	2.018	9
10	5.400	4.700	36.500	7.000	35.000	16.000	14.800	21.200	10.900	4.640	2.360	1.994	10
11	5.700	5.000	44.000	6.160	38.500	14.400	11.960	20.000	10.900	4.590	2.360	1.994	11
12	5.550	7.600	44.000	6.000	35.000	10.100	9.500	12.800	8.500	4.520	2.496	1.994	12
13	5.200	7.000	33.500	6.300	31.500	8.300	8.600	10.900	7.960	4.520	2.496	2.044	13
14	5.800	14.500	28.400	10.250	26.500	10.100	7.400	10.900	7.780	4.400	2.496	2.044	14
15	5.550	18.500	42.000	12.420	22.800	12.200	7.400	9.700	8.320	3.988	2.360	2.018	15
16	4.500	12.100	47.000	12.420	20.000	16.000	7.400	10.000	11.200	3.844	2.360	2.044	16
17	3.800	16.500	98.400	11.700	17.500	21.240	6.800	10.000	18.200	3.844	2.224	1.970	17
18	3.800	15.700	123.000	21.500	14.700	22.000	6.800	9.100	12.880	3.580	2.088	1.946	18
19	3.500	24.000	107.400	20.500	12.800	18.960	10.400	8.800	10.900	3.460	1.828	1.898	19
20	3.500	27.000	73.700	15.900	12.000	19.720	14.000	12.800	10.000	3.328	1.700	1.922	20
21	3.500	22.300	57.800	51.500	12.000	22.600	17.760	14.400	8.320	3.184	1.700	1.898	21
22	2.900	20.000	32.500	51.000	12.500	22.600	11.960	14.400	7.600	3.040	1.700	1.898	22
23	2.800	75.000	26.000	44.000	11.500	20.480	11.000	12.800	8.320	3.040	1.700	1.874	23
24	3.100	67.000	26.000	46.000	11.000	17.320	10.100	11.500	10.000	3.184	1.828	1.874	24
25	3.200	36.400	20.320	39.000	11.000	16.440	10.100	10.900	10.600	3.460	2.088	1.874	25
26	5.000	31.900	16.320	25.000	11.000	13.280	11.240	10.600	11.200	3.460	2.224	1.898	26
27	5.500	40.000	16.320	17.000	7.000	11.960	11.960	10.900	8.500	3.580	2.224	1.830	27
28	7.250	45.000	10.640	15.100	9.500	10.400	11.000	8.320	7.240	3.580	2.088	1.786	28
29	7.500	22.700	10.480	15.500	13.000	-	10.700	8.140	7.420	3.580	1.956	1.758	29
30	7.500	18.000	8.640	15.500	9.500	-	10.400	7.250	6.880	3.580	1.828	1.730	30
31	-	15.700	-	18.700	8.500	-	10.400	-	6.700	-	2.088	1.730	31
	123.220	595.000	1,052.100	543.960	736.950	510.780	382.200	351.610	372.300	125.118	80.162	60.376	
	4.107	19.193	35.070	27.547	23.772	18.242	12.329	11.720	12.009	4.170	2.585	1.947	

Annual Total ( ) 4,933.176

Daily Runoff STATION 3 Llaucano Shugar

RIVER, IN THE BASIN OF ELEVATION 2,320 m UNIT Cu. m/sec-day YEAR 1966 - 1967

DATE	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	DATE
1	1.750	1.900	28.000	19.200	5.720	57.800	76.900	41.000	21.000	13.083	6.500	2.650	1
2	1.810	2.850	25.600	14.800	5.600	37.260	57.100	34.900	18.300	11.475	6.208	2.733	2
3	1.870	5.500	22.500	12.100	13.100	32.700	49.000	35.800	16.500	10.892	6.292	2.825	3
4	2.030	5.500	19.800	10.900	11.300	32.150	40.500	28.000	16.000	10.800	6.333	2.650	4
5	1.978	5.500	17.400	10.600	16.100	32.150	47.300	23.700	14.000	11.533	6.583	2.650	5
6	1.926	5.900	25.600	10.900	17.150	32.150	43.050	21.000	14.000	13.667	6.292	2.650	6
7	1.870	8.000	26.400	11.500	15.750	39.150	44.750	18.900	14.000	14.317	6.167	2.593	7
8	1.810	10.000	22.200	10.300	14.700	51.160	48.150	17.000	14.000	11.567	6.292	2.565	8
9	1.810	13.600	21.300	10.300	14.700	119.900	45.600	15.000	13.500	11.592	6.792	2.551	9
10	1.870	20.000	21.000	14.800	28.500	71.400	37.700	14.500	14.000	14.267	6.183	2.537	10
11	1.926	24.500	22.200	10.000	22.700	42.300	34.200	13.000	14.000	17.125	3.200	2.508	11
12	1.870	26.800	18.400	8.500	23.500	33.800	32.850	12.600	13.500	19.375	3.029	2.480	12
13	1.926	59.000	16.200	8.800	27.500	28.000	49.000	11.800	14.000	19.209	2.996	2.375	13
14	1.926	63.600	12.400	7.700	27.000	24.700	44.750	13.000	19.000	21.533	3.217	2.360	14
15	1.926	46.500	10.200	7.700	21.900	22.700	110.200	14.000	19.000	15.100	7.317	2.419	15
16	1.870	29.500	8.400	7.500	21.900	20.700	149.050	13.500	14.000	4.958	9.733	2.593	16
17	1.978	23.500	8.000	7.500	21.500	19.500	91.000	16.500	22.300	5.383	9.667	2.650	17
18	2.360	26.500	8.400	7.700	22.700	24.300	67.000	21.700	27.300	5.567	8.992	2.650	18
19	2.760	38.800	10.200	5.850	25.500	23.100	55.300	29.600	20.300	6.292	8.467	2.512	19
20	2.540	38.000	9.800	4.900	28.500	24.700	43.050	43.600	16.000	6.792	8.875	2.300	20
21	2.540	35.000	10.200	4.600	23.500	32.700	35.600	30.400	15.500	7.000	4.279	2.435	21
22	2.680	25.500	11.000	4.400	17.500	35.450	30.250	28.800	15.500	7.000	3.925	2.480	22
23	2.760	19.500	13.200	4.200	17.500	39.780	26.400	35.600	15.000	7.000	7.196	2.375	23
24	2.680	16.000	15.300	4.300	20.300	71.400	22.800	36.800	15.000	7.117	6.842	2.300	24
25	2.540	15.500	19.800	4.600	23.100	271.000	21.000	101.000	14.500	6.367	4.879	2.300	25
26	2.420	12.800	19.800	5.100	26.500	179.700	20.450	101.000	14.000	6.817	4.700	2.360	26
27	2.300	8.800	30.200	4.700	23.300	181.000	18.250	56.200	14.000	6.917	4.650	2.855	27
28	2.300	7.100	35.500	4.600	20.700	211.000	30.900	43.600	14.000	7.000	4.358	3.025	28
29	2.360	9.600	29.400	4.500	44.460	-	40.500	34.900	14.000	6.933	3.821	2.879	29
30	2.360	12.500	22.800	4.400	55.310	-	58.000	26.500	13.500	6.933	3.317	3.096	30
31	-	21.500	-	4.600	68.100	-	49.000	-	13.500	-	3.383	3.200	31
	64.746	639.250	561.200	251.550	724.590	1,791.650	1,519.600	934.100	493.200	313.611	180.485	80.556	
	2.158	20.621	18.706	8.114	23.373	63.987	49.019	31.136	15.909	10.453	5.822	2.598	

Annual Total ( ) 7,554.558

Daily Runoff STATION 3 Llaucano Shugar

RIVER, IN THE BASIN OF ELEVATION 2,320 m UNIT Cu. m/sec-day YEAR 1967 - 1968

DATE	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	DATE
1	2.800	8.875	21.537	5.766	8.500								1
2	2.883	9.000	24.225	6.173	8.500								2
3	2.650	10.000	21.416	6.500	8.500								3
4	2.600	10.917	17.933	5.575	8.500								4
5	2.600	9.958	14.075	5.390	8.292								5
6	2.600	10.025	11.850	5.390	8.458								6
7	2.367	11.208	10.775	5.046	9.500								7
8	2.000	11.208	10.583	5.015	8.583								8
9	2.367	11.542	17.800	5.856	7.395								9
10	2.250	14.225	15.341	12.150	6.750								10
11	2.383	27.042	12.350	19.150	6.542								11
12	2.400	22.083	10.638	20.266	6.250								12
13	2.583	23.875	7.706	19.166	6.250								13
14	2.483	28.833	6.250	13.611	5.625								14
15	2.550	23.542	7.175	11.975	9.792								15
16	2.600	34.750	7.300	9.996	9.687								16
17	2.600	4.300	14.408	9.280	8.542								17
18	2.600	3.246	19.195	13.770	9.000								18
19	2.783	4.371	30.396	16.516	8.083								19
20	2.433	4.342	31.118	13.191	7.604								20
21	2.400	4.508	24.891	11.000	6.875								21
22	2.583	4.800	23.121	10.388	7.500								22
23	2.433	3.858	19.341	9.671	9.520								23
24	2.200	3.600	16.988	9.668	14.042								24
25	2.200	3.600	14.316	9.026	19.500								25
26	2.200	3.600	11.825	8.225	23.750								26
27	2.116	5.908	8.511	9.235	23.917								27
28	2.150	10.350	6.665	11.050	19.917								28
29	2.533	9.100	6.156	12.000	17.167								29
30	2.783	10.925	5.940	12.000	15.167								30
31	-	10.925	-	14.058	13.850								31
	74.130	354.516	457.825	326.103	330.958								
	2.471	11.436	15.260	10.519	10.676								

Annual Total ( )

Daily Runoff STATION 4 Rio Pomagon

RIVER, IN THE BASIN OF ELEVATION 2,520 m UNIT Cu. m/sec-day YEAR 1963

DATE	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	DATE
1	-	2.694	4.655	2.184	1.084	0.300	0.080	0.080	0.080	0.085	0.520	1.850	1
2	-	1.334	3.811	2.032	0.953	0.280	0.085	0.080	0.080	0.085	0.544	4.047	2
3	-	1.733	4.202	2.900	1.158	0.262	0.085	0.080	0.080	0.090	0.544	4.400	3
4	-	2.939	5.633	7.170	2.919	0.249	0.085	0.080	0.080	0.090	2.091	3.000	4
5	-	3.294	4.575	13.865	2.919	0.242	0.085	0.090	0.080	0.090	1.500	4.000	5
6	-	3.294	3.316	8.231	1.518	0.200	0.085	0.090	0.080	0.090	1.410	2.100	6
7	-	3.358	2.869	15.000	1.314	0.134	0.085	0.090	0.080	0.080	1.200	1.600	7
8	-	2.547	3.358	13.080	1.142	0.130	0.085	0.090	0.095	0.075	0.747	1.300	8
9	-	2.016	4.340	9.424	1.153	0.130	0.080	0.090	0.095	0.075	0.620	1.100	9
10	-	1.471	9.154	8.101	1.053	0.157	0.080	0.090	0.090	0.075	0.620	1.100	10
11	-	1.713	19.025	5.896	1.486	0.144	0.080	0.090	0.090	0.075	0.472	0.990	11
12	-	2.064	10.722	5.000	1.053	0.140	0.080	0.097	0.080	0.090	0.500	1.300	12
13	-	1.574	6.278	3.680	0.978	0.120	0.085	0.097	0.080	0.090	0.433	3.837	13
14	-	1.159	4.382	3.200	0.842	0.143	0.090	0.097	0.090	0.080	0.392	6.100	14
15	-	0.927	3.294	2.901	0.802	0.140	0.090	0.097	0.090	0.110	0.336	6.100	15
16	0.743	0.742	2.939	2.445	0.827	0.150	0.090	0.097	0.090	0.269	0.354	4.136	16
17	0.578	0.602	2.510	2.081	0.770	0.145	0.085	0.097	0.090	0.418	0.316	10.000	17
18	0.499	0.629	2.373	2.265	0.711	0.164	0.090	0.090	0.090	0.418	0.354	4.566	18
19	0.424	0.804	3.810	1.756	0.690	0.146	0.080	0.090	0.090	0.418	0.354	3.800	19
20	0.420	1.119	3.816	2.254	0.629	0.140	0.080	0.090	0.090	0.418	0.336	5.859	20
21	0.374	2.086	4.133	2.174	0.536	0.092	0.080	0.090	0.085	0.256	3.800	3.000	21
22	0.642	1.529	4.670	2.174	0.521	0.090	0.080	0.080	0.085	0.225	2.700	2.700	22
23	1.192	1.185	8.335	2.012	0.418	0.080	0.080	0.080	0.085	0.176	1.143	1.975	23
24	1.407	1.126	6.900	1.550	0.418	0.084	0.075	0.080	0.085	0.176	1.000	1.600	24
25	1.405	1.173	8.417	1.491	0.418	0.080	0.075	0.080	0.085	0.347	0.852	1.447	25
26	1.363	7.545	6.779	1.313	0.424	0.080	0.075	0.060	0.085	0.200	0.816	2.400	26
27	2.190	3.783	4.462	1.325	0.424	0.060	0.073	0.060	0.085	0.342	0.554	2.150	27
28	2.220	8.198	4.003	1.200	0.368	0.080	0.073	0.060	0.085	0.342	0.700	2.150	28
29	2.262	-	4.275	1.017	0.340	0.060	0.073	0.060	0.085	0.342	0.816	9.000	29
30	2.213	-	3.633	1.100	0.340	0.060	0.073	0.060	0.090	0.418	1.200	6.244	30
31	2.094	-	2.132	-	0.286	-	0.073	0.060	-	0.418	-	5.280	31
		62.637	162.801	128.821	28.076	4.282	2.515	2.572	2.575	6.463	27.224	109.131	
		2.237	5.252	4.294	0.906	0.143	0.081	0.082	0.085	0.208	0.907	3.520	

Annual Total ( )

Daily Runoff STATION 4 Rio Pomagon

RIVER, IN THE BASIN OF ELEVATION 2,520 m UNIT Cu. m/sec-day YEAR 1964

DATE	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	DATE
1	5.680	2.170	2.440	6.000	1.126	0.452	0.069	Filtra-clones	0.131	0.600	0.448	1.216	1
2	5.400	3.250	2.440	4.000	1.438	0.452	0.069	0.000	0.131	0.790	0.448	0.809	2
3	4.870	1.733	2.170	3.500	1.126	0.452	0.054	"	0.131	0.550	0.463	0.809	3
4	3.790	1.566	1.733	2.750	1.126	0.452	0.054	"	0.131	0.500	0.463	0.982	4
5	2.980	1.399	1.566	2.350	2.750	0.378	0.030	"	0.082	0.421	0.885	0.982	5
6	2.440	1.566	1.566	1.950	1.950	0.378	0.020	"	0.050	0.421	1.250	0.959	6
7	2.440	1.399	1.399	1.950	1.594	0.378	0.020	"	0.044	0.450	1.549	0.959	7
8	1.900	2.170	1.232	2.350	1.438	0.378	0.020	"	0.022	0.550	1.549	0.884	8
9	0.230	2.170	1.065	3.250	1.126	0.452	0.015	"	0.022	0.600	1.862	0.884	9
10	1.399	2.440	1.065	3.500	0.896	0.452	"	"	0.017	0.790	1.590	0.884	10
11	2.710	1.900	1.065	2.750	0.822	0.452	"	"	0.017	0.790	1.590	0.923	11
12	3.790	1.566	1.065	2.350	0.822	0.452	"	"	0.020	0.790	1.590	0.923	12
13	3.520	1.399	1.065	2.150	0.822	0.378	"	"	0.018	0.850	1.868	0.948	13
14	2.440	1.232	1.065	1.950	0.748	0.304	"	"	0.018	0.900	1.660	0.800	14
15	2.440	1.232	0.898	1.950	0.748	0.304	"	"	0.020	1.000	1.312	0.779	15
16	1.900	2.710	0.731	1.750	0.748	0.304	"	"	0.022	1.100	1.312	0.779	16
17	1.900	1.900	1.232	1.750	0.674	0.230	"	"	0.020	1.172	1.300	0.779	17
18	1.900	2.170	1.065	1.470	0.674	0.230	"	"	0.020	1.100	1.312	0.779	18
19	1.900	2.440	3.520	1.470	0.674	0.230	"	"	0.020	0.850	4.000	0.854	19
20	1.900	2.980	3.520	1.150	0.600	0.230	"	"	0.020	0.700	3.400	0.854	20
21	1.733	4.330	2.980	1.050	0.600	0.230	"	"	0.020	0.600	2.747	0.809	21
22	1.566	3.250	2.170	1.050	0.674	0.200	"	"	0.023	0.550	2.747	0.700	22
23	1.399	4.060	1.733	0.940	0.674	0.200	"	0.200	0.023	0.550	2.700	0.700	23
24	1.065	4.870	1.900	0.940	0.600	0.200	"	0.453	0.055	0.500	3.138	0.700	24
25	1.566	3.520	2.980	0.940	0.600	0.200	"	0.453	0.140	0.472	3.138	2.480	25
26	2.710	2.710	2.710	0.940	0.600	0.170	"	0.453	0.500	0.472	1.800	1.800	26
27	2.440	2.170	2.440	0.830	0.600	0.170	"	0.555	0.529	0.472	1.917	3.993	27
28	2.170	1.900	2.440	0.830	0.526	0.170	"	0.311	0.483	0.400	1.917	3.550	28
29	1.900	1.733	2.980	1.150	0.526	0.140	"	0.250	0.483	0.400	1.663	3.590	29
30	1.900	-	2.980	2.350	0.452	0.140	"	0.250	0.529	0.400	1.000	2.600	30
31	2.170	-	2.710	-	0.452	-	"	0.169	-	0.400	-	2.100	31
	76.148	67.935	59.925	61.360	28.206	9.158	0.351	3.094	3.741	20.140	52.618	40.808	
	2.456	2.342	1.933	2.045	0.910	0.305	0.011	0.100	0.125	0.650	1.753	1.316	

Annual Total ( ) 423.484

Daily Runoff STATION 4 Río Pomagon

RIVER, IN THE BASIN OF ELEVATION 2,520 m UNIT Cu. m/sec-day YEAR 1965

DATE	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	DATE
1	1.800	0.650	2.800	8.800	3.000	0.390	0.045	Filtra-ciones	Filtra-ciones	0.140	1.020	0.820	1
2	1.800	0.650	2.125	6.400	2.700	0.390	0.045	0.000	0.000	0.140	0.920	0.820	2
3	2.200	0.500	1.700	5.650	2.400	0.390	0.062	"	"	0.140	0.720	0.820	3
4	2.200	0.500	1.700	3.900	2.160	0.320	0.086	"	"	0.140	0.720	0.820	4
5	2.200	1.000	2.800	3.200	1.950	0.280	0.239	"	"	0.194	0.920	0.820	5
6	2.000	0.900	6.250	3.200	1.700	0.280	0.185	"	"	0.194	0.720	0.820	6
7	4.800	0.800	9.625	6.800	1.225	0.320	0.153	"	"	0.140	0.620	1.800	7
8	3.000	0.500	16.200	5.300	1.225	0.280	0.125	"	"	0.140	0.620	1.496	8
9	2.600	0.500	7.375	4.250	1.225	0.240	0.089	"	"	0.140	0.620	1.308	9
10	2.400	0.500	5.125	3.550	1.225	0.240	0.089	"	"	0.194	0.920	0.920	10
11	5.320	0.800	5.125	3.550	1.255	0.220	0.086	"	0.100	0.242	2.516	0.720	11
12	3.000	0.700	3.625	4.250	1.060	0.220	0.086	"	0.140	0.242	2.060	0.620	12
13	2.000	0.500	2.500	3.550	1.450	0.240	0.089	"	0.140	0.290	2.516	0.620	13
14	1.600	0.700	11.800	8.800	1.240	0.220	0.089	"	0.100	0.356	2.060	0.554	14
15	1.600	1.900	7.000	5.300	1.240	0.220	0.089	"	0.100	1.020	3.200	1.496	15
16	1.400	1.540	5.875	4.250	1.240	0.160	0.089	"	0.080	1.020	3.560	1.496	16
17	1.400	1.360	5.500	3.550	1.240	0.145	0.085	"	0.080	0.920	8.216	1.308	17
18	1.400	1.180	5.500	2.850	0.930	0.160	0.085	"	0.100	0.920	9.700	2.744	18
19	1.400	1.180	8.875	2.500	0.760	0.160	0.080	"	0.100	0.820	6.600	3.560	19
20	1.200	1.000	7.750	2.220	0.760	0.160	Filtraciones	"	0.080	1.020	5.000	2.744	20
21	1.000	3.950	7.750	1.660	0.630	0.160	0.000	"	0.080	0.920	3.920	9.000	21
22	0.890	3.100	5.500	1.660	0.630	0.145	"	"	0.080	4.280	2.744	9.000	22
23	0.890	3.100	4.000	1.380	0.630	0.145	"	"	0.080	9.000	1.308	7.400	23
24	0.780	3.950	3.250	1.100	0.500	0.145	"	"	0.080	2.972	2.060	6.224	24
25	0.780	2.850	2.500	1.380	0.500	0.145	"	"	0.100	1.800	1.800	10.500	25
26	1.000	2.380	1.700	3.550	0.430	0.120	"	"	0.100	2.516	1.496	3.560	26
27	1.200	2.140	4.750	2.220	0.430	0.100	"	"	0.194	2.060	1.308	2.744	27
28	0.890	1.900	15.500	2.220	0.430	0.080	"	"	0.194	3.200	1.020	2.516	28
29	0.780	-	10.250	1.940	0.430	0.060	"	"	0.140	2.060	1.020	2.200	29
30	0.670	-	7.000	1.940	0.360	0.060	"	"	0.140	1.308	0.920	2.060	30
31	0.670	-	5.500	-	0.360	-	"	"	-	1.120	-	2.288	31
	54.870	40.730	186.950	110.920	35.285	6.195	1.896	Filtraciones	2.208	39.648	71.024	83.798	
	1.770	1.455	6.031	3.697	1.138	0.206	0.061	"	0.073	1.279	2.367	2.703	

Annual Total ( ) 633.524

Daily Runoff STATION 4 Río Pomagon

RIVER, IN THE BASIN OF ELEVATION 2,520 m UNIT Cu. m/sec-day YEAR 1966

DATE	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	DATE
1	11.750	0.900	0.800	0.830	0.410	0.322	0.081	0.014	0.022	0.010	1.572	1.572	1
2	13.050	0.800	1.440	0.830	0.455	0.263	0.350	0.014	0.017	0.010	1.368	1.368	2
3	8.500	0.900	1.660	0.830	0.500	0.263	0.332	0.017	0.017	0.132	0.852	1.164	3
4	4.800	1.000	1.660	0.720	0.455	0.263	0.135	0.017	0.022	0.158	0.960	0.960	4
5	5.200	3.780	1.660	0.830	0.455	0.258	0.116	0.019	0.017	0.210	0.636	0.960	5
6	4.800	3.360	1.440	0.720	0.455	0.203	0.081	0.019	0.017	0.210	0.960	0.852	6
7	3.100	3.360	1.440	0.610	0.500	0.153	0.081	0.023	0.022	0.252	1.522	0.960	7
8	3.400	2.940	1.440	0.610	0.410	0.153	0.062	0.023	0.022	0.184	1.572	0.852	8
9	4.000	1.880	1.660	0.940	0.455	0.138	0.051	0.017	0.022	0.132	1.368	0.760	9
10	11.100	1.440	1.440	0.500	0.720	0.138	0.051	0.017	0.022	0.336	1.572	2.164	10
11	8.000	1.440	1.220	0.610	1.050	0.124	0.037	0.018	0.017	0.294	1.980	1.572	11
12	6.000	1.000	0.900	0.500	0.410	0.124	0.037	0.018	0.017	0.336	1.980	1.368	12
13	3.700	0.900	0.800	0.610	0.500	0.203	0.037	0.017	0.017	2.900	1.572	0.852	13
14	3.700	1.000	0.800	0.500	0.610	0.203	0.037	0.017	0.017	2.716	1.368	0.852	14
15	3.100	1.000	0.700	0.500	0.610	0.138	0.016	0.019	0.017	1.776	0.960	0.744	15
16	3.100	1.000	0.700	0.500	1.770	0.084	0.020	0.019	0.022	0.960	0.852	0.636	16
17	2.200	2.100	0.700	0.455	1.580	0.084	0.032	0.021	0.017	0.744	0.636	0.528	17
18	1.600	1.880	0.500	0.500	0.940	0.055	0.020	0.021	0.017	0.636	0.852	0.528	18
19	1.600	1.660	0.700	0.455	1.230	0.055	0.034	0.021	0.030	2.348	0.852	0.420	19
20	1.300	1.660	0.800	0.500	0.500	0.055	0.020	0.021	0.022	1.980	0.744	0.420	20
21	1.300	1.660	2.520	0.610	0.830	0.055	0.020	0.020	0.022	2.348	0.636	0.338	21
22	1.000	2.520	2.100	0.455	0.610	0.055	0.034	0.020	0.017	1.776	0.744	0.338	22
23	1.000	1.880	2.100	0.455	0.720	0.055	0.020	0.020	0.017	1.368	0.744	0.336	23
24	1.000	1.660	1.880	0.455	0.720	0.055	0.020	0.020	0.017	1.368	0.960	0.336	24
25	1.000	1.660	1.660	0.455	0.940	0.055	0.016	0.015	0.022	1.164	1.776	0.378	25
26	0.900	1.220	1.660	0.500	0.720	0.055	0.016	0.015	0.017	0.960	1.368	0.336	26
27	0.800	1.000	1.220	0.455	0.610	0.055	0.016	0.015	0.017	0.744	2.164	0.378	27
28	0.900	1.000	1.000	0.455	0.500	0.116	0.016	0.015	0.017	0.744	2.900	0.744	28
29	1.600	-	0.900	0.410	0.455	0.226	0.013	0.019	0.017	0.852	2.716	0.378	29
30	1.300	-	0.800	0.410	0.500	0.116	0.013	0.019	0.017	0.960	1.980	0.378	30
31	1.000	-	0.800	-	0.410	-	0.013	0.019	-	1.164	-	0.336	31
	115.800	46.600	39.100	17.210	21.030	4.122	1.827	0.569	0.573	29.772	40.216	24.008	
	3.735	1.664	1.261	0.573	0.678	0.137	0.058	0.018	0.019	0.960	1.340	0.774	

Annual Total ( ) 340.827

Daily Runoff STATION 6 Rio Maygasbamba Puente

RIVER, IN THE BASIN OF ELEVATION 2,550 m UNIT cu. m/sec-day YEAR 1973 - 1974

DATE	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	DATE
1	0.843	1.541											1
2	1.046	2.526											2
3	1.286	2.807											3
4	1.636	2.118											4
5	1.130	1.984											5
6	0.990	1.982											6
7	0.944	3.044											7
8	0.880	2.841											8
9	0.816	2.654											9
10	0.777	2.995											10
11	0.690	2.907											11
12	0.673	2.263											12
13	0.638	2.007											13
14	0.591	1.962											14
15	0.621	1.906											15
16	0.810	2.297											16
17	1.124	3.393											17
18	1.563	4.531											18
19	1.239	3.956											19
20	4.073	2.915											20
21	5.441	2.364											21
22	3.037	1.995											22
23	2.096	1.727											23
24	1.884	1.861											24
25	2.149	1.502											25
26	2.984	1.387											26
27	5.235	1.252											27
28	3.043	1.233											28
29	2.185	1.168											29
30	1.727	1.258											30
31	-	2.687											31
Total	52.151	71.063											
Mean	1.738	2.292											

Annual Total ( )

Daily Runoff STATION 4 Rio Pomagon

RIVER, IN THE BASIN OF ELEVATION 2,520 m UNIT Cu. m/sec-day YEAR 1967

DATE	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	DATE
1	0.250	5.500	8.350	2.350	1.800	0.750	0.160	0.140	0.023	0.023	1.220	0.440	1
2	0.380	4.000	5.540	2.350	2.150	0.750	0.160	0.140	0.023	0.023	1.180	0.440	2
3	0.900	3.400	4.750	2.600	1.950	0.925	0.160	0.115	0.023	0.035	1.130	0.376	3
4	1.000	2.750	4.000	2.150	1.600	0.963	0.140	0.115	0.023	0.053	0.875	0.315	4
5	1.000	3.100	4.400	1.950	1.800	0.757	0.140	0.115	0.023	0.087	0.697	0.310	5
6	0.900	3.100	4.100	1.800	1.600	0.757	0.115	0.068	0.023	0.090	0.560	0.310	6
7	0.900	3.100	4.100	1.600	1.950	0.757	0.098	0.098	0.016	0.090	0.560	0.310	7
8	0.900	4.350	4.100	1.450	1.950	0.963	0.080	0.080	0.016	0.040	0.525	0.310	8
9	0.500	8.000	4.750	1.300	1.950	0.963	0.080	0.080	0.016	0.085	1.113	0.310	9
10	0.700	4.900	4.400	1.200	1.600	0.963	0.080	0.080	0.016	0.058	0.743	0.476	10
11	1.130	2.670	3.700	1.100	1.950	0.757	0.080	0.080	0.016	0.055	0.745	0.694	11
12	1.130	2.390	3.700	1.050	1.800	0.757	0.160	0.080	0.016	0.215	0.650	1.430	12
13	1.520	1.680	3.700	1.000	1.800	0.395	0.280	0.080	0.016	0.230	0.560	0.581	13
14	1.650	2.000	3.700	1.000	1.800	0.395	0.400	0.080	0.022	0.138	0.525	0.383	14
15	1.490	1.750	9.500	1.050	2.350	0.489	0.480	0.080	0.033	0.469	0.473	0.508	15
16	1.490	1.750	13.800	1.000	1.800	0.489	0.280	0.080	0.034	0.344	0.420	0.813	16
17	1.360	1.450	9.500	1.000	1.250	0.479	0.240	0.080	0.034	0.376	0.521	0.721	17
18	1.490	2.390	5.950	1.200	5.150	0.479	0.200	0.080	0.034	0.380	0.598	0.710	18
19	2.500	2.100	5.100	2.600	1.800	0.320	0.200	0.080	0.024	0.380	0.263	0.594	19
20	2.330	2.100	3.400	2.350	2.150	0.320	0.240	0.080	0.023	0.380	1.258	0.495	20
21	2.330	2.000	2.980	2.150	1.950	0.320	0.280	0.068	0.023	0.380	1.155	0.376	21
22	1.650	2.000	2.350	2.350	1.600	0.320	0.400	0.068	0.023	0.444	0.918	0.382	22
23	1.820	3.100	2.100	2.600	1.300	0.216	0.340	0.068	0.023	0.450	0.745	0.633	23
24	1.990	2.670	2.300	2.350	1.300	0.216	0.340	0.068	0.023	0.450	0.745	0.470	24
25	1.990	39.500	1.900	7.950	1.300	0.216	0.280	0.068	0.023	3.246	0.650	0.331	25
26	2.160	25.600	1.900	3.350	1.300	0.216	0.280	0.068	0.023	1.896	0.650	0.365	26
27	2.330	30.000	1.770	6.750	1.200	0.216	0.280	0.080	0.023	1.567	0.560	0.801	27
28	1.650	27.000	2.950	4.450	1.200	0.216	0.280	0.098	0.016	1.183	0.560	1.537	28
29	1.490	-	2.950	4.100	1.050	0.216	0.280	0.080	0.016	1.287	0.554	1.389	29
30	3.900	-	3.400	1.800	1.050	0.216	0.200	0.080	0.016	1.300	0.525	1.064	30
31	3.500	-	3.400	-	1.050	-	0.115	0.098	-	1.300	-	0.863	31
	48.330	194.350	138.540	74.950	55.200	15.796	6.848	2.675	0.663	17.054	2.168	18.727	
	1.559	6.941	4.469	2.498	1.781	0.527	0.221	0.086	0.022	0.550	0.723	0.604	

Annual Total ( ) 594.811

Daily Runoff STATION 5 Río Cuñacales

RIVER, IN THE BASIN OF ELEVATION 2,500 m UNIT Cu. m/sec-day YEAR 1963

DATE	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	DATE
1		0.031	0.065	0.070	0.092	Seco	Seco	Seco	Seco	Seco	0.036	0.045	1
2		0.031	0.106	0.068	0.065	0.000	0.000	0.000	0.000	0.000	0.034	0.038	2
3		0.031	0.054	0.069	0.127	"	"	"	"	"	0.038	0.045	3
4		0.031	0.057	0.308	0.167	"	"	"	"	"	0.188	0.045	4
5		0.083	0.057	1.452	0.167	"	"	"	"	"	0.123	0.038	5
6		0.063	0.059	1.623	0.103	"	"	"	"	"	0.036	0.045	6
7		0.275	0.049	5.000	0.088	"	"	"	"	"	0.034	0.038	7
8		0.063	0.588	0.663	0.076	"	"	"	"	"	0.034	0.036	8
9		0.029	0.093	0.403	0.064	"	"	"	"	"	0.034	0.034	9
10		0.023	0.106	0.315	0.063	"	"	"	"	"	0.025	0.031	10
11		0.021	0.587	0.236	0.063	"	"	"	"	"	0.020	0.031	11
12		0.026	1.368	0.156	0.062	"	"	"	"	0.012	0.020	0.038	12
13		0.032	0.360	0.117	0.061	"	"	"	"	0.020	0.022	0.123	13
14		0.024	0.208	0.120	0.061	"	"	"	"	0.020	0.020	0.112	14
15		0.024	0.111	0.150	0.060	"	"	"	"	0.012	0.020	0.112	15
16	0.021	0.022	0.128	0.128	0.061	"	"	"	"	0.072	0.025	0.101	16
17	0.009	0.022	0.092	0.129	0.054	"	"	"	"	0.072	0.022	0.085	17
18	0.010	0.021	0.091	0.175	0.054	"	"	"	"	0.058	0.022	0.064	18
19	0.013	0.021	0.097	0.153	0.054	"	"	"	"	0.072	0.028	0.032	19
20	0.015	0.019	0.080	0.197	0.056	"	"	"	"	0.072	0.025	0.033	20
21	0.011	0.018	0.083	0.120	0.039	"	"	"	"	0.012	0.045	0.032	21
22	0.011	0.024	0.079	0.116	0.017	"	"	"	"	0.012	0.038	0.032	22
23	0.023	0.015	0.104	0.123	Seco	"	"	"	"	0.020	0.036	0.032	23
24	0.018	0.015	0.275	0.116	0.000	"	"	"	"	0.012	0.038	0.027	24
25	0.013	0.015	0.079	0.097	"	"	"	"	"	0.020	0.034	0.027	25
26	0.023	0.182	0.089	0.091	"	"	"	"	"	0.058	0.034	0.032	26
27	0.029	0.063	0.057	0.097	"	"	"	"	"	0.033	0.034	0.034	27
28	0.024	0.105	0.060	0.091	"	"	"	"	"	0.033	0.042	0.010	28
29	0.026	-	0.087	0.097	"	"	"	"	"	0.072	0.033	0.600	29
30	0.033	-	0.093	0.097	"	"	"	"	"	0.080	0.033	0.431	30
31	0.036	-	0.082	-	"	-	"	"	-	0.075	-	0.300	31
		1.329	5.444	12.577	1.654	Seco	Seco	Seco	Seco	0.837	1.173	2.713	
		0.047	0.176	0.419	0.053					0.027	0.039	0.087	
										Annual Total ( )			

Daily Runoff STATION 5 Río Cuñacales

RIVER, IN THE BASIN OF ELEVATION 2,500 m UNIT Cu. m/sec-day YEAR 1964

DATE	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	DATE
1	0.323	0.093	0.115	0.480	0.113	Filtra-ciones	Filtra-ciones	Filtra-ciones	Filtra-ciones	0.026	0.055	0.027	1
2	0.200	0.121	0.115	0.270	0.150	0.000	0.000	0.000	0.000	0.026	0.060	0.021	2
3	0.135	0.121	0.115	0.225	0.102	"	"	"	"	0.033	0.070	0.033	3
4	0.140	0.101	0.104	0.200	0.102	"	"	"	"	0.012	0.070	0.050	4
5	0.140	0.094	0.104	0.175	0.103	"	"	"	"	0.012	0.072	0.077	5
6	0.099	0.094	0.107	0.175	0.103	"	"	"	"	0.012	0.072	0.055	6
7	0.077	0.096	0.107	0.175	0.102	"	"	"	"	0.012	0.042	0.024	7
8	0.077	0.250	0.105	0.225	0.085	"	"	"	"	0.012	0.042	0.021	8
9	0.075	0.250	0.105	0.270	0.085	"	"	"	"	0.012	0.053	0.021	9
10	0.068	0.144	0.105	0.890	0.105	"	"	"	"	0.012	0.050	0.018	10
11	0.200	0.144	0.097	0.620	0.103	"	"	"	"	0.010	0.050	0.012	11
12	0.145	0.140	0.107	0.400	0.050	"	"	"	"	0.012	0.051	0.010	12
13	0.143	0.108	0.143	0.200	0.038	"	"	"	"	0.035	0.051	0.010	13
14	0.077	0.101	0.143	0.175	0.031	"	"	"	"	0.035	0.040	0.008	14
15	0.082	0.094	0.118	0.200	0.031	"	"	"	"	0.035	0.035	0.010	15
16	0.076	0.140	0.118	0.175	0.025	"	"	"	"	0.038	0.035	0.010	16
17	0.076	0.108	0.118	0.175	0.012	"	"	"	"	0.038	0.035	0.032	17
18	0.077	0.108	0.157	0.150	0.010	"	"	"	"	0.035	0.032	0.023	18
19	0.077	0.101	0.165	0.125	0.010	"	"	"	"	0.020	0.091	0.023	19
20	0.105	0.108	0.131	0.125	0.010	"	"	"	"	0.045	0.070	0.023	20
21	0.100	0.144	0.131	0.100	0.012	"	"	"	"	0.045	0.061	0.023	21
22	0.077	0.189	0.131	0.100	0.016	"	"	0.065	"	0.040	0.065	0.024	22
23	0.077	0.340	0.132	0.075	0.016	"	"	0.065	"	0.040	0.073	0.021	23
24	0.076	0.367	0.132	0.075	0.016	"	"	0.065	"	0.045	0.081	0.024	24
25	0.076	0.325	0.200	0.075	0.024	"	"	0.065	0.028	0.045	0.079	0.033	25
26	0.093	0.267	0.165	0.125	0.020	"	"	0.061	0.052	0.045	0.079	0.032	26
27	0.093	0.200	0.144	0.100	0.022	"	"	0.061	0.043	0.045	0.041	0.064	27
28	0.093	0.189	0.144	0.075	0.020	"	"	0.061	0.031	0.045	0.044	0.055	28
29	0.082	0.150	0.165	0.125	0.014	"	"	0.055	0.028	0.032	0.045	0.057	29
30	0.093	-	0.150	0.315	0.016	"	"	0.042	0.028	0.032	0.040	0.050	30
31	0.089	-	0.165	-	0.012	-	"	0.020	-	0.032	-	0.012	31
	3.341	4.687	4.038	6.595	1.558	Filtra-ciones	Filtra-ciones	0.560	0.210	0.918	1.687	0.933	
	0.107	0.162	0.130	0.220	0.050	"	"	0.018	0.007	0.030	0.056	0.030	
										Annual Total ( )		25.527	

Daily Runoff STATION 5 Río Cuñacales

RIVER, IN THE BASIN OF ELEVATION 2,500 m UNIT Cu. m/sec-day YEAR 1965

DATE	Sep.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	DATE
1	0.026	0.010	0.070	0.619	0.260	Filtra-	Filtra-	Filtra-	Filtra-	Filtra-	0.030	0.065	1
2	0.026	0.010	0.070	0.475	0.210	ciones	ciones	ciones	ciones	ciones	0.020	0.060	2
3	0.035	0.010	0.053	0.248	0.230	0.000	0.000	0.000	0.000	0.000	0.020	0.065	3
4	0.032	0.010	0.053	0.235	0.230	"	"	"	"	"	0.015	0.035	4
5	0.029	0.055	0.162	0.355	0.260	"	"	"	"	"	0.060	0.035	5
6	0.026	0.040	0.149	0.312	0.120	"	"	"	"	"	0.030	0.035	6
7	0.120	0.040	0.180	0.825	0.150	"	"	"	"	"	0.035	0.035	7
8	0.041	0.010	0.655	0.672	0.130	"	"	"	"	"	0.030	0.035	8
9	0.035	0.010	0.400	0.340	0.130	"	"	"	"	"	0.045	0.030	9
10	0.032	0.010	0.215	0.285	0.130	"	"	"	"	"	0.030	0.035	10
11	0.047	0.010	0.149	0.235	0.180	"	"	"	"	"	0.020	0.025	11
12	0.029	0.010	0.136	0.312	0.105	"	"	"	"	"	0.070	0.030	12
13	0.020	0.010	0.136	0.260	0.300	"	"	"	"	"	0.045	0.025	13
14	0.018	0.010	0.385	0.248	0.260	"	"	"	"	"	0.035	0.020	14
15	0.016	0.025	0.450	0.248	0.170	"	"	"	"	0.120	0.120	0.025	15
16	0.016	0.010	0.340	0.187	0.130	"	"	"	"	0.115	0.055	0.055	16
17	0.016	0.010	0.310	0.148	0.100	"	"	"	"	0.110	0.195	0.070	17
18	0.015	0.040	0.300	0.135	0.070	"	"	"	"	0.100	0.445	0.035	18
19	0.014	0.150	0.330	0.123	0.055	"	"	"	"	0.090	0.308	0.035	19
20	0.013	0.135	0.357	0.100	0.055	"	"	"	"	0.060	0.365	0.030	20
21	0.012	0.400	0.357	0.087	0.050	"	"	"	"	0.020	0.225	0.032	21
22	0.011	0.330	0.400	0.075	0.045	"	"	"	"	0.060	0.200	0.032	22
23	0.011	0.270	0.280	0.060	0.045	"	"	"	"	0.300	0.075	0.045	23
24	0.010	0.215	0.230	0.060	0.035	"	"	"	"	0.060	0.075	0.035	24
25	0.017	0.165	0.225	0.050	0.035	"	"	"	"	0.045	0.070	0.032	25
26	0.014	0.105	0.215	0.285	0.035	"	"	"	"	0.110	0.060	0.030	26
27	0.013	0.055	0.285	0.200	0.025	"	"	"	"	0.070	0.045	0.030	27
28	0.013	0.040	0.450	0.174	0.020	"	"	"	"	0.090	0.050	0.030	28
29	0.012	-	0.930	0.224	0.010	"	"	"	"	0.045	0.065	0.055	29
30	0.011	-	0.601	0.187	0.010	"	"	"	"	0.026	0.025	0.050	30
31	0.009	-	0.541	-	0.010	-	"	"	-	0.025	-	0.050	31
	0.739	2.195	9.417	7.764	35.950	Filtra-	Filtra-	Filtra-	Filtra-	1.446	2.933	1.201	
	0.027	0.078	0.304	0.259	0.116	ciones	ciones	ciones	ciones	0.047	0.098	0.039	
										Annual Total ( )		61.645	

Daily Runoff STATION 5 Río Cuñacales

RIVER, IN THE BASIN OF ELEVATION 2,500 m UNIT Cu. m/sec-day YEAR 1966

DATE	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	DATE
1	0.790	0.048	0.096	0.033	0.011	Filtra-	Filtra-	Filtra-	Filtra-	Filtra-	0.270		1
2	0.435	0.048	0.128	0.033	0.011	ciones	ciones	ciones	ciones	ciones	0.155		2
3	0.182	0.040	0.152	0.028	0.013	0.000	0.000	0.000	0.000	0.000	0.115		3
4	0.110	0.112	0.080	0.022	0.014	"	"	"	"	0.050	0.066		4
5	0.096	0.192	0.104	0.016	0.014	"	"	"	"	0.010	0.058		5
6	0.082	0.088	0.064	0.016	0.013	"	"	"	"	0.022	0.115		6
7	0.075	0.080	0.056	0.014	0.013	"	"	"	"	0.015	0.247		7
8	0.082	0.080	0.056	0.022	0.013	"	"	"	"	0.015	0.178		8
9	0.103	0.080	0.128	0.090	0.013	"	"	"	"	0.022	0.122		9
10	0.110	0.064	0.104	0.033	0.013	"	"	"	"	0.015	0.155		10
11	0.096	0.056	0.088	0.039	0.013	"	"	"	"	0.043	0.178		11
12	0.110	0.040	0.080	0.028	0.013	"	"	"	"	0.050	0.142		12
13	0.096	0.040	0.056	0.016	0.013	"	"	"	"	0.058	0.098		13
14	0.082	0.040	0.048	0.014	0.014	"	"	"	"	0.629	0.082		14
15	0.075	0.056	0.056	0.016	0.011	"	"	"	"	0.785	0.066		15
16	0.068	0.048	0.056	0.014	0.013	"	"	"	"	0.166	0.058		16
17	0.054	0.056	0.056	0.013	0.011	"	"	"	"	0.082	0.058		17
18	0.054	0.048	0.056	0.013	0.013	"	"	"	"	0.058	0.050		18
19	0.054	0.040	0.048	0.014	0.013	"	"	"	"	0.515	0.050		19
20	0.054	0.040	0.080	0.014	0.013	"	"	"	"	0.259	0.066		20
21	0.054	0.040	0.136	0.014	0.011	"	"	"	"	0.166	0.058		21
22	0.047	0.120	0.120	0.014	0.013	"	"	"	"	0.105	0.050		22
23	0.040	0.080	0.056	0.014	0.011	"	"	"	"	0.066	0.043		23
24	0.040	0.072	0.056	0.014	0.011	"	"	"	"	0.066	0.050		24
25	0.047	0.056	0.048	0.013	0.009	"	"	"	"	0.058	0.050		25
26	0.047	0.056	0.048	0.013	0.013	"	"	"	"	0.050	0.043		26
27	0.047	0.048	0.040	0.014	0.009	"	"	"	"	0.036	0.043		27
28	0.047	0.048	0.040	0.014	0.009	"	"	"	"	0.022	0.050		28
29	0.075	-	0.035	0.013	0.009	"	"	"	"	0.015	0.058		29
30	0.061	-	0.035	0.011	0.009	"	"	"	"	0.015	0.058		30
31	0.054	-	0.035	-	0.009	-	"	"	-	0.036	0.058		31
	3.367	1.816	2.241	0.622	0.368	Filtra-	Filtra-	Filtra-	Filtra-	0.122	-		
	0.109	0.065	0.072	0.021	0.012	ciones	ciones	ciones	ciones	3.551	2.832		
										0.114	0.094		
										Annual Total ( )			

Daily Runoff STATION 6 Rio Maygasbamba Puente

RIVER, IN THE BASIN OF ELEVATION 2,550 m UNIT cu.m/sec-day YEAR 1967 - 1968

DATE	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	DATE
1	-	-	-	-	0.462	0.989	1.105	1.507	1.096	0.405	0.178	0.217	1
2	-	-	-	-	0.447	0.904	1.060	0.915	0.732	0.392	0.183	0.232	2
3	-	-	-	-	0.566	1.008	1.258	0.857	0.660	0.375	0.200	0.225	3
4	-	-	-	-	0.600	0.939	1.383	0.820	0.620	0.375	0.215	0.212	4
5	-	-	-	-	0.590	0.855	1.217	0.925	0.580	0.375	0.236	0.208	5
6	-	-	-	-	0.602	0.858	2.392	0.862	0.544	0.395	0.284	0.196	6
7	-	-	-	-	0.545	0.928	3.996	0.823	0.535	0.436	0.234	0.197	7
8	-	-	-	-	0.500	0.914	2.867	0.820	0.538	0.377	0.229	0.185	8
9	-	-	-	-	0.500	1.821	2.967	0.777	0.524	0.484	0.229	0.195	9
10	-	-	-	-	0.500	2.354	14.021	0.842	0.506	0.476	0.223	0.186	10
11	-	-	-	-	0.500	1.871	29.533	0.855	0.521	0.440	0.247	0.159	11
12	-	-	-	-	0.472	1.617	8.267	0.775	0.564	0.408	0.243	0.187	12
13	-	-	-	-	0.470	2.027	5.032	0.900	0.544	0.405	0.223	0.203	13
14	-	-	-	-	0.475	1.798	3.983	1.165	0.650	0.405	0.225	0.180	14
15	-	-	-	-	0.615	1.481	3.104	1.135	0.620	0.405	0.207	0.195	15
16	-	-	-	-	0.561	1.525	2.487	0.935	0.643	0.392	0.180	0.145	16
17	-	-	-	-	0.592	1.308	2.300	0.818	0.990	0.336	0.190	0.145	17
18	-	-	-	-	0.627	1.175	2.037	0.777	1.352	0.274	0.196	0.143	18
19	-	-	-	-	0.677	1.598	2.270	0.707	0.988	0.290	0.200	0.154	19
20	-	-	-	-	0.600	1.517	1.748	0.660	0.947	0.290	0.195	0.201	20
21	-	-	-	-	0.605	1.427	1.687	0.617	0.850	0.290	0.204	0.205	21
22	-	-	-	-	0.736	1.208	1.590	0.630	0.795	0.290	0.207	0.195	22
23	-	-	-	-	0.862	1.062	1.488	0.620	0.700	0.290	0.202	0.191	23
24	-	-	-	-	1.665	0.988	1.730	0.693	0.633	0.279	0.199	0.207	24
25	-	-	-	-	1.858	0.880	1.768	0.620	0.587	0.265	0.191	0.220	25
26	-	-	-	-	2.121	0.880	1.683	0.563	0.550	0.265	0.195	0.215	26
27	-	-	-	-	1.937	0.880	1.463	0.567	0.535	0.265	0.204	0.191	27
28	-	-	-	-	1.525	1.008	1.347	0.550	0.535	0.265	0.200	0.201	28
29	-	-	-	-	1.504	0.886	1.253	0.499	0.491	0.237	0.188	0.192	29
30	-	-	-	-	1.220	-	1.220	0.589	0.480	0.219	0.226	0.199	30
31	-	-	-	-	1.100	-	1.146	-	0.467	-	0.230	0.209	31
Total	-	-	-	-	26.034	36.706	109.492	23.823	20.777	10.400	6.565	5.990	
Mean	-	-	-	-	0.840	1.266	3.529	0.794	0.670	0.347	0.212	0.193	
									Annual Total ( )				

Daily Runoff STATION 6 Rio Maygasbamba Puente

RIVER, IN THE BASIN OF ELEVATION 2,550 m UNIT cu.m/sec-day YEAR 1968 - 1969

DATE	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	DATE
1	0.397	1.821	1.399	0.285	0.265	0.290	0.684	3.737	1.480	0.485	0.263	0.208	1
2	0.359	1.021	1.113	0.233	0.259	0.282	0.611	3.951	1.249	0.405	0.245	0.202	2
3	0.363	0.925	0.958	0.262	0.235	0.253	1.373	4.176	1.070	0.397	0.257	0.202	3
4	0.387	0.969	0.855	0.255	0.220	0.264	1.080	6.433	0.988	0.369	0.247	0.208	4
5	0.374	2.110	0.785	0.211	0.215	0.460	0.866	6.845	1.058	0.485	0.230	0.202	5
6	0.330	3.718	0.760	0.208	0.196	0.493	0.975	7.416	1.381	0.455	0.228	0.202	6
7	0.303	3.510	0.735	0.248	0.225	1.868	1.206	4.975	0.968	0.522	0.213	0.202	7
8	0.290	2.909	0.730	0.256	0.199	1.745	1.824	4.187	0.781	0.510	0.210	0.182	8
9	0.277	3.957	0.848	0.220	0.181	1.888	1.853	3.533	0.918	0.435	0.207	0.189	9
10	0.247	2.352	0.986	0.328	0.193	3.282	1.470	2.970	0.893	0.425	0.193	0.156	10
11	0.185	2.520	2.100	0.410	0.288	3.448	1.153	3.478	0.746	0.390	0.205	0.168	11
12	0.225	2.053	1.979	0.532	0.372	2.552	1.036	7.670	0.670	0.435	0.214	0.126	12
13	0.365	1.752	1.429	0.441	0.943	2.580	1.175	5.875	0.670	0.625	0.225	0.168	13
14	0.330	2.613	1.160	0.508	0.828	2.643	1.318	5.888	0.670	0.665	0.195	0.182	14
15	0.310	2.123	1.126	0.483	1.183	1.975	2.270	9.429	0.670	0.578	0.210	0.173	15
16	0.280	1.528	1.015	0.404	2.033	1.625	1.903	11.016	0.670	0.723	0.223	0.161	16
17	0.146	1.200	0.865	0.419	2.348	1.307	1.596	6.920	0.614	0.739	0.210	0.192	17
18	0.215	0.990	0.780	0.430	1.405	1.178	1.346	4.177	0.510	0.548	0.197	0.162	18
19	0.267	0.835	0.716	0.492	0.918	1.039	1.195	3.350	0.485	0.485	0.193	0.165	19
20	0.444	0.766	0.654	0.470	0.693	0.930	0.992	2.877	0.651	0.445	0.200	0.197	20
21	0.533	0.733	0.608	0.475	0.580	0.865	1.449	3.621	0.488	0.364	0.203	0.229	21
22	0.435	0.676	0.566	0.420	0.505	0.733	1.765	4.640	0.475	0.313	0.206	0.184	22
23	0.415	0.656	0.550	0.378	0.492	0.608	1.428	3.201	0.500	0.290	0.201	0.247	23
24	0.359	0.620	0.546	0.295	0.439	0.734	1.330	2.580	0.470	0.248	0.210	0.247	24
25	0.343	0.593	0.530	0.245	0.415	0.749	1.224	2.300	0.415	0.250	0.210	0.210	25
26	0.313	0.885	0.490	0.204	0.404	0.946	1.560	2.049	0.415	0.283	0.195	0.229	26
27	0.377	1.033	0.472	0.202	0.367	0.903	1.803	1.895	0.450	0.247	0.210	0.197	27
28	0.470	0.831	0.400	0.195	0.347	0.725	2.251	1.761	0.425	6.510	0.179	0.192	28
29	0.699	0.975	0.377	0.199	0.318	-	4.863	1.695	0.391	0.463	0.174	0.173	29
30	1.090	0.880	0.366	0.322	0.302	-	4.703	1.573	0.397	0.392	0.191	0.156	30
31	-	1.086	-	0.299	0.310	-	4.325	-	0.422	-	0.201	0.120	31
Total	11.128	48.631	25.896	10.329	17.678	36.366	52.627	134.218	21.990	13.481	6.545	5.831	
Mean	0.371	1.569	0.863	0.333	0.570	1.299	1.698	4.474	0.709	0.449	0.211	0.188	
									Annual Total ( )			384.722	

Daily Runoff STATION 6 Rio Maygashamba Puente

RIVER, IN THE BASIN OF ELEVATION 2,550 m UNIT cu.m/sec-day YEAR 1969 - 1970

DATE	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	DATE
1	0.160	0.183	0.545	3.850	3.112	4.610	4.090	2.300	4.496	1.157	0.704	0.514	1
2	0.196	0.183	0.628	3.638	2.810	4.456	3.750	2.300	3.235	1.090	0.784	0.477	2
3	0.160	0.170	0.551	3.793	2.696	4.100	3.466	2.612	3.130	1.090	0.753	0.425	3
4	0.157	0.159	0.795	4.489	2.753	4.632	3.182	4.047	5.030	1.049	0.647	0.418	4
5	0.149	0.167	1.052	4.546	3.009	4.457	3.039	4.661	5.135	0.930	0.680	0.418	5
6	0.135	0.162	0.800	5.329	3.555	3.867	4.755	5.509	3.855	0.975	0.620	0.418	6
7	0.136	0.169	0.721	4.251	4.615	3.550	4.129	4.858	4.360	0.987	0.620	0.373	7
8	0.142	0.175	0.650	4.066	5.353	3.642	3.616	4.069	3.585	1.120	0.576	0.373	8
9	0.161	0.223	0.581	3.792	4.610	4.608	3.400	3.666	4.715	0.981	0.576	0.334	9
10	0.182	0.248	0.513	3.688	3.866	3.700	3.736	4.707	5.040	0.905	0.886	0.328	10
11	0.144	0.237	1.548	3.796	3.915	3.466	5.799	5.467	4.398	0.816	0.886	0.322	11
12	0.141	0.218	1.738	3.734	5.789	3.267	8.830	4.437	3.781	0.728	0.848	0.325	12
13	0.161	0.303	1.354	3.483	7.820	3.107	9.376	4.477	3.375	0.677	0.715	0.328	13
14	0.144	0.518	1.537	3.299	7.260	2.910	9.133	4.533	3.378	0.639	0.598	0.322	14
15	0.146	0.667	3.039	3.050	6.560	2.739	8.616	4.869	6.296	0.626	0.576	0.300	15
16	0.154	3.324	2.851	2.975	5.561	3.197	7.080	4.968	10.213	0.609	0.572	0.304	16
17	0.151	2.378	2.295	2.884	4.828	3.889	5.820	6.360	7.695	0.605	0.546	0.248	17
18	0.152	1.220	1.853	2.800	3.470	3.753	5.050	7.780	5.568	0.640	0.543	0.310	18
19	0.161	0.782	1.526	2.854	3.433	3.843	4.533	7.940	4.207	0.598	0.576	0.269	19
20	0.138	0.644	1.400	3.150	5.597	3.784	4.083	6.280	3.121	0.513	0.572	0.255	20
21	0.155	0.573	1.313	4.776	5.361	3.750	3.821	5.092	2.855	0.510	0.565	0.240	21
22	0.208	0.600	1.538	4.297	4.935	3.550	3.466	4.418	2.658	0.488	0.535	0.230	22
23	0.203	2.850	3.771	4.189	4.725	3.300	3.483	3.950	2.329	0.488	0.532	0.274	23
24	0.177	4.450	5.071	3.671	4.725	4.058	3.583	3.683	2.243	0.551	0.521	0.281	24
25	0.226	3.100	5.292	4.267	4.610	5.877	3.224	3.550	1.710	2.143	0.462	0.265	25
26	0.339	2.353	5.475	4.347	4.150	6.160	2.937	3.617	1.580	1.746	0.562	0.242	26
27	0.339	1.539	6.033	4.417	4.058	5.093	2.810	3.417	1.436	0.980	0.635	0.278	27
28	0.317	1.314	5.633	4.503	3.783	4.495	2.767	3.039	1.303	0.784	0.593	0.329	28
29	0.221	0.950	4.783	3.815	3.700	-	2.585	3.106	1.294	0.677	0.535	0.466	29
30	0.190	0.736	4.322	3.473	3.615	-	2.456	3.890	1.165	0.620	0.532	0.470	30
31	-	0.684	-	3.231	4.955	-	2.420	-	1.120	-	0.557	0.433	31
Total	5.445	31.279	69.208	118.453	139.229	111.860	139.035	133.602	114.306	25.722	19.247	10.569	
Mean	0.181	1.009	2.310	3.821	4.491	3.995	4.485	4.453	3.687	0.857	0.621	0.341	

Annual Total ( ) 917.955

Daily Runoff STATION 6 Rio Maygashamba Puente

RIVER, IN THE BASIN OF ELEVATION 2,550 m UNIT cu.m/sec-day YEAR 1970 - 1971

DATE	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	DATE
1	0.391	0.530	4.132	9.483	2.956	2.328	3.415	14.015	2.100	1.305	0.936	0.518	1
2	0.436	0.551	2.917	13.281	3.492	2.258	5.705	14.005	1.920	1.125	0.936	0.430	2
3	0.506	1.603	2.470	18.170	2.973	2.270	5.482	11.383	2.010	1.291	0.936	0.461	3
4	0.433	0.959	5.887	18.050	3.066	2.107	10.890	11.761	2.010	1.380	0.842	0.384	4
5	0.397	0.723	4.462	10.489	4.602	1.931	10.030	11.281	2.145	1.380	0.842	0.435	5
6	0.364	0.660	3.975	6.691	7.599	1.888	6.624	8.260	3.472	1.350	0.842	0.394	6
7	0.364	0.560	3.195	5.493	9.621	1.888	5.028	6.494	3.945	1.519	1.030	0.451	7
8	0.325	0.493	3.150	4.822	6.286	1.853	4.439	5.491	4.280	1.366	1.124	0.482	8
9	0.369	0.721	2.210	3.860	4.600	1.748	3.993	4.929	3.630	1.312	1.030	0.492	9
10	0.313	1.015	2.372	3.380	3.640	1.624	3.937	4.451	2.955	1.513	0.936	0.420	10
11	0.240	1.611	3.107	3.246	3.313	1.528	9.039	5.172	2.640	1.770	0.842	0.502	11
12	0.229	1.870	3.110	2.831	2.972	1.432	9.755	5.573	2.550	1.965	0.936	0.520	12
13	0.229	1.172	2.502	2.666	2.713	1.416	17.521	5.276	2.145	2.176	0.748	0.502	13
14	0.266	0.907	2.895	2.655	3.201	1.416	14.131	6.716	2.190	2.190	0.748	0.544	14
15	0.395	0.764	3.020	4.317	4.111	1.456		6.724	1.920	2.230	0.654	0.533	15
16	0.370	0.723	2.652	4.361	4.439	1.553	18.270		1.830	1.950	0.657	0.559	16
17	0.361	1.149	2.242	4.235	3.731	2.136	18.430	5.758	1.740	1.758	0.563	0.471	17
18	0.352	0.977	1.895	3.985	3.126	2.616		5.062	1.740	1.700	0.466	0.399	18
19	0.250	0.817	1.812	3.446	2.749	4.466	17.124	4.500	1.740	1.675	0.466	0.430	19
20	0.242	0.696	1.359	3.073	2.387	9.436	15.035	4.084	2.100	1.600	0.466	0.409	20
21	0.233	0.667	1.510	2.843	2.119	9.125	10.910	3.767	1.880	1.575	0.372	0.409	21
22	0.375	0.852	1.400	2.503	1.992	12.440	12.466	3.713	1.920	1.500	0.466	0.394	22
23	0.331	0.794	1.455	2.305	1.931	7.950	11.016	3.856	1.740	1.413	0.372	0.394	23
24	0.328	1.060	1.249	2.200	1.914	7.825	12.642	3.608	2.910	1.343	0.372	0.394	24
25	0.274	1.697	1.271	2.220	1.931	6.892	13.524	3.404	3.375	1.218	0.372	0.451	25
26	0.271	1.813	2.542	2.096	1.862	6.416	9.702	3.279	2.730	1.218	0.372	0.399	26
27	0.292	3.214	3.352	3.173	2.018	5.385	9.590	3.212	2.550	1.178	0.512	0.394	27
28	0.420	3.249	3.817	2.955	1.990	3.985	8.530	3.075	2.280	1.084	0.584	0.394	28
29	0.505	2.115	3.460	2.480	3.673	-	7.580	2.939	2.010	0.975	0.372	0.394	29
30	0.455	8.254	4.455	2.793	3.067	-	9.563	2.860	1.740	0.936	0.466	0.394	30
31	-	7.410	-	3.075	2.480	-	17.038	-	1.650	-	0.466	0.394	31
Total	10.316	49.617	84.273	157.177	106.554	107.368	335.080	182.338	73.847	45.015	20.726	13.747	
Mean	0.344	1.600	2.809	5.070	3.437	3.834	10.809	6.078	2.382	1.500	0.668	0.443	

Annual Total ( ) 1,186.058

Daily Runoff STATION 6 Rio Maygasbamba Puente

RIVER, IN THE BASIN OF ELEVATION 2,550 m UNIT cu.m/sec-day YEAR 1971 - 1972

DATE	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	DATE
1	0.317	0.348	3.758	4.549	3.354	1.152	1.726	2.505	3.015	1.450	0.656	0.465	1
2	0.309	0.278	2.951	6.968	2.950	1.175	1.315	2.343	2.633	1.414	0.669	0.439	2
3	0.329	0.286	2.370	5.624	2.642	1.047	1.163	2.201	2.449	1.378	0.660	0.382	3
4	0.332	0.608	3.291	4.390	3.229	1.010	1.267	2.030	2.292	1.342	0.643	0.386	4
5	0.346	1.449	2.605	3.670	3.940	0.905	9.365	2.022	2.319	1.256	0.669	0.405	5
6	0.337	1.472	3.380	2.990	3.462	0.803	3.621	1.910	2.298	1.184	0.652	0.409	6
7	0.341	0.998	3.780	2.654	3.370	1.543	2.912	1.814	2.937	1.120	0.601	0.397	7
8	0.350	0.771	8.861	2.500	4.156	2.272	4.260	1.710	3.160	1.089	0.601	0.386	8
9	0.364	0.928	4.779	2.360	3.416	3.801	10.896	1.754	2.877	1.053	0.601	0.393	9
10	0.369	1.455	3.504	2.210	2.866	3.421	4.943	3.071	2.538	1.058	0.686	0.397	10
11	0.364	1.124	2.978	2.070	2.715	2.317	4.047	2.780	2.517	1.011	0.669	0.382	11
12	0.376	1.328	3.067	1.958	2.490	1.779	2.922	2.334	2.298	0.960	0.609	0.431	12
13	0.367	1.567	2.805	1.800	2.469	1.550	2.282	2.942	2.210	0.980	0.588	0.454	13
14	0.349	1.602	2.430	1.733	2.090	1.392	2.225	3.938	2.128	1.037	0.554	0.444	14
15	0.336	2.180	2.170	1.658	1.851	1.317	4.707	7.342	2.051	1.053	0.567	0.420	15
16	0.336	1.710	2.005	1.541	1.655	1.197	9.125	4.061	1.989	0.980	0.528	0.420	16
17	0.336	1.351	1.891	1.483	1.497	1.070	5.235	3.761	1.944	0.996	0.486	0.386	17
18	0.330	1.280	1.716	1.460	1.407	0.935	5.167	3.769	1.876	0.923	0.503	0.416	18
19	0.324	1.461	1.600	2.312	1.576	0.890	6.648	3.306	1.836	0.908	0.511	0.337	19
20	0.332	1553	1.853	2.232	1.467	0.748	7.300	3.831	1.808	0.934	0.465	0.345	20
21	0.329	1.335	1.996	2.900	1.362	0.730	7.275	3.306	1.791	0.908	0.482	0.375	21
22	0.323	1.312	2.220	3.131	1.280	0.771	6.128	3.790	1.847	0.908	0.469	0.420	22
23	0.323	1.257	1.900	2.775	1.205	0.722	4.299	3.624	2.053	0.908	0.453	0.393	23
24	0.316	1.748	1.716	2.481	1.160	0.753	3.154	3.269	2.078	0.872	0.435	0.360	24
25	0.332	2.635	1.600	3.275	1.122	0.791	3.007	3.170	2.046	0.851	0.465	0.375	25
26	0.325	2.775	1.839	3.990	1.017	0.942	2.599	3.642	1.949	0.856	0.465	0.375	26
27	0.315	2.521	2.140	3.990	0.890	0.860	2.721	3.761	2.006	0.867	0.423	0.360	27
28	0.332	2.585	2.160	3.990	0.800	1.242	3.159	4.353	1.915	0.851	0.405	0.311	28
29	0.347	3.842	2.951	4.972	1.010	2.334	2.722	5.747	1.825	0.815	0.423	0.364	29
30	0.348	4.036	2.556	4.915	1.182	-	2.493	4.320	1.740	0.768	0.427	0.330	30
31	-	3.804	-	4.314	1.152	-	2.321	-	1.672	-	0.420	0.319	31
Total	10.134	51.599	82.863	96.897	64.782	39.469	131.004	98.406	68.097	30.730	16.785	12.076	
Mean	0.338	1.664	2.762	3.125	2.089	1.361	4.226	3.280	2.196	1.024	0.541	0.389	
									Annual Total ( )			702.842	

Daily Runoff STATION 6 Rio Maygasbamba Puente

RIVER, IN THE BASIN OF ELEVATION 2,550 m UNIT cu.m/sec-day YEAR 1972 - 1973

DATE	Sep.	Oct.	Nov.	Dec.	Jan	Feb.	Mar.	Apr.	May	June	July	Aug.	DATE
1	0.383	0.645	0.401	2.394	0.980	1.649	1.599	14.763	1.845	1.066	1.173	1.569	1
2	0.441	0.672	0.345	2.093	0.970	1.553	0.636	28.283	1.898	1.066	1.029	1.749	2
3	1.040	1.188	0.364	2.282	0.980	1.630	1.549	37.443	1.850	1.050	0.953	1.689	3
4	0.753	1.231	0.373	2.953	1.000	1.573	1.565	11.894	1.834	0.986	0.865	1.439	4
5	0.569	2.004	0.345	2.680	1.000	2.280	1.753	7.505	1.930	0.975	0.869	1.325	5
6	0.498	3.240	0.357	2.498	0.990	2.624	1.763	9.404	1.962	0.965	0.874	1.173	6
7	0.461	2.034	0.407	2.046	0.990	2.722	2.502	10.748	1.727	0.938	0.795	0.991	7
8	0.413	1.500	0.501	2.387	1.037	2.501	3.125	15.096	1.578	0.938	0.826	0.848	8
9	0.386	1.206	0.588	2.973	1.337	2.197	2.859	12.127	1.551	0.933	0.768	0.795	9
10	0.370	1.013	0.517	4.271	2.962	1.973	2.605	8.776	1.514	0.927	0.702	0.764	10
11	0.393	0.943	0.859	5.152	2.005	1.913	2.258	8.490	1.487	0.847	0.755	0.724	11
12	0.426	0.856	1.088	4.202	1.982	1.773	2.059	8.392	1.450	0.810	0.729	0.711	12
13	0.403	0.780	1.112	3.086	1.948	1.627	3.251	9.796	1.450	0.810	0.671	0.742	13
14	0.430	0.726	1.184	3.094	2.163	1.480	3.169	7.812	1.413	0.794	0.680	0.737	14
15	0.403	0.710	0.888	2.485	2.363	1.393	2.547	6.431	1.359	0.746	0.658	0.693	15
16	0.386	0.650	0.689	2.072	2.073	1.356	2.265	5.670	1.322	0.746	0.640	0.653	16
17	0.438	0.748	0.649	2.340	1.873	1.298	2.536	4.910	1.306	0.746	0.631	0.605	17
18	0.585	0.840	0.598	2.695	1.922	1.248	2.989	4.145	1.242	0.709	0.676	0.596	18
19	1.696	0.780	0.537	2.750	2.140	1.211	2.807	3.835	1.215	0.757	0.658	0.578	19
20	1.755	0.737	0.547	2.194	4.690	1.226	2.547	3.061	1.194	0.858	0.658	0.662	20
21	1.533	0.704	0.623	2.331	2.952	1.219	2.310	3.762	1.290	0.938	0.658	0.702	21
22	1.116	0.677	0.903	2.063	2.337	2.713	2.198	4.871	1.322	0.895	0.631	0.689	22
23	0.964	0.645	1.145	1.779	2.303	3.172	2.337	3.524	1.226	0.773	0.676	0.751	23
24	0.823	0.645	1.888	1.572	2.361	2.832	2.678	2.447	1.167	0.815	0.733	0.720	24
25	0.769	0.639	2.619	1.393	1.995	2.259	2.413	2.340	1.130	1.157	0.714	0.658	25
26	0.683	0.986	12.038	1.272	1.777	2.033	2.458	2.241	1.103	1.354	0.910	0.645	26
27	0.645	1.203	5.122	1.246	1.694	1.853	8.566	2.548	1.066	1.247	0.786	0.605	27
28	0.645	0.753	5.353	1.203	1.750	1.720	4.487	2.540	1.082	1.055	0.773	0.574	28
29	0.645	0.661	4.766	1.125	1.750	-	3.585	2.273	1.109	0.997	1.279	0.711	29
30	0.618	0.574	3.538	1.055	1.645	-	7.092	1.900	1.381	1.007	1.386	0.676	30
31	-	0.493	-	1.012	1.503	-	4.900	-	1.183	-	1.507	0.609	31
Total	20.670	30.483	50.344	72.698	57.477	52.989	90.298	247.027	44.186	27.905	25.663	26.376	
Mean	0.689	0.983	1.678	2.345	1.854	1.892	2.912	8.234	1.425	0.930	0.827	0.851	
									Annual Total ( )			746.114	

Daily Runoff STATION 6 Rio Maygashamba Puente

RIVER, IN THE BASIN OF ELEVATION 2,550 m UNIT cu. m/sec-day YEAR 1973 - 1974

DATE	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	DATE
1	0.843	1.541											1
2	1.046	2.526											2
3	1.286	2.807											3
4	1.636	2.118											4
5	1.130	1.984											5
6	0.990	1.982											6
7	0.944	3.044											7
8	0.880	2.841											8
9	0.816	2.654											9
10	0.777	2.995											10
11	0.690	2.907											11
12	0.673	2.263											12
13	0.638	2.007											13
14	0.591	1.962											14
15	0.621	1.906											15
16	0.810	2.297											16
17	1.124	3.393											17
18	1.563	4.531											18
19	1.239	3.956											19
20	4.073	2.915											20
21	5.441	2.364											21
22	3.037	1.995											22
23	2.096	1.727											23
24	1.884	1.861											24
25	2.149	1.502											25
26	2.984	1.387											26
27	5.235	1.252											27
28	3.043	1.233											28
29	2.185	1.168											29
30	1.727	1.258											30
31	-	2.687											31
Total	52.151	71.063											
Mean	1.738	2.292											

Annual Total ( )

Daily Runoff STATION 7 Qda. Shugar

RIVER, IN THE BASIN OF ELEVATION 2,780 m UNIT cu.m/sec-day YRAR 1967 - 1968

DATE	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	DATE
1	-	-	-	-	0.675	0.980	2.711	0.940	2.656	0.220	0.010	0.012	1
2	-	-	-	-	0.595	0.847	4.400	0.795	1.867	0.197	0.010	Filtracion	2
3	-	-	-	-	0.545	1.820	4.400	0.739	0.830	0.180	0.010	0.000	3
4	-	-	-	-	0.520	3.000	4.400	0.710	0.506	0.162	0.010	"	4
5	-	-	-	-	0.474	1.998	4.400	0.710	0.409	0.150	0.027	"	5
6	-	-	-	-	0.699	1.176	3.450	0.550	0.335	0.140	0.054	0.014	6
7	-	-	-	-	1.267	0.847	3.300	0.490	0.301	0.162	0.054	0.018	7
8	-	-	-	-	0.966	1.249	3.300	0.490	0.275	0.156	0.047	0.018	8
9	-	-	-	-	0.716	1.648	3.300	0.490	0.262	0.299	0.047	0.019	9
10	-	-	-	-	0.590	2.619	3.425	0.490	0.245	0.233	0.050	0.018	10
11	-	-	-	-	0.580	2.629	4.054	0.445	0.222	0.183	0.047	0.018	11
12	-	-	-	-	0.533	1.881	3.770	0.412	0.230	0.162	0.038	0.045	12
13	-	-	-	-	0.453	1.416	4.400	0.368	0.572	0.135	0.029	0.033	13
14	-	-	-	-	0.430	1.283	4.300	0.390	0.389	0.114	0.012	0.030	14
15	-	-	-	-	0.704	1.214	3.400	0.410	0.482	0.082	0.013	0.029	15
16	-	-	-	-	0.900	0.987	2.862	0.593	0.515	0.082	0.012	0.022	16
17	-	-	-	-	0.758	1.100	2.696	0.599	0.775	0.082	0.012	0.022	17
18	-	-	-	-	0.875	0.965	3.225	0.499	1.219	0.063	0.010	0.025	18
19	-	-	-	-	0.783	1.169	3.429	0.435	0.840	0.026	0.013	0.024	19
20	-	-	-	-	0.659	2.256	3.050	0.377	0.567	0.037	0.015	0.028	20
21	-	-	-	-	0.580	1.810	2.354	0.358	0.449	0.021	0.018	0.029	21
22	-	-	-	-	0.516	1.485	2.070	0.337	0.378	0.017	0.018	0.028	22
23	-	-	-	-	0.506	1.137	1.702	0.320	0.352	0.017	0.017	0.026	23
24	-	-	-	-	1.242	0.810	1.437	0.312	0.310	0.017	0.015	0.032	24
25	-	-	-	-	1.408	0.602	1.479	0.298	0.278	0.017	0.013	0.031	25
26	-	-	-	-	3.133	0.484	2.444	0.280	0.262	0.017	Filtracion	0.031	26
27	-	-	-	-	3.500	0.421	2.279	0.272	0.245	0.013	"	0.031	27
28	-	-	-	-	3.042	0.518	1.997	0.260	0.230	0.010	0.000	0.033	28
29	-	-	-	-	2.125	1.023	1.552	0.263	0.203	0.008	"	0.033	29
30	-	-	-	-	1.733	-	1.920	0.302	0.227	0.008	"	0.030	30
31	-	-	-	-	1.458	-	1.950	-	0.230	-	"	0.029	31
Total	-	-	-	-	32.956	39.374	93.456	13.934	16.661	3.010	0.601	0.708	
Mean	-	-	-	-	1.063	1.358	3.015	0.464	0.537	0.100	0.019	0.023	

Annual Total ( )

Daily Runoff STATION 7 Qda. Shugar

RIVER, IN THE BASIN OF ELEVATION 2,780 m UNIT cu.m/sec-day YRAR 1968 - 1969

DATE	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	DATE
1	0.040	3.890	1.110	0.160	0.462	0.217	0.802	4.387	0.825	0.137	0.242	0.027	1
2	0.035	2.820	1.175	0.148	0.363	0.183	0.760	3.950	0.698	0.111	0.220	0.023	2
3	0.035	1.757	0.873	0.143	0.297	0.175	1.373	4.237	0.597	0.106	0.230	0.029	3
4	0.041	1.607	0.698	0.130	0.259	0.175	2.112	5.241	0.573	0.134	0.205	0.034	4
5	0.044	3.790	0.585	0.110	0.229	0.186	1.305	5.362	0.522	0.160	0.171	0.035	5
6	0.041	8.260	0.522	0.110	0.186	0.388	0.805	4.433	0.597	0.160	0.149	0.035	6
7	0.037	8.665	0.514	0.110	0.178	2.942	1.898	4.312	0.490	0.162	0.132	0.035	7
8	0.037	8.495	0.585	0.110	0.168	6.050	3.192	5.154	0.398	0.173	0.100	0.035	8
9	0.036	9.825	0.923	0.110	0.151	4.867	3.417	4.233	0.360	0.136	0.058	0.035	9
10	0.032	7.453	0.933	0.115	0.125	6.050	2.925	3.520	0.360	0.100	0.058	0.035	10
11	0.032	4.439	1.521	0.126	0.100	4.692	1.825	3.420	0.314	0.077	0.058	0.032	11
12	0.034	3.748	3.025	0.118	0.116	4.092	1.010	4.525	0.281	0.098	0.078	0.025	12
13	0.052	2.850	2.708	0.116	0.459	5.850	0.653	5.025	0.277	0.165	0.078	0.024	13
14	0.044	2.489	3.108	0.220	1.418	5.475	0.506	3.820	0.260	0.191	0.058	0.028	14
15	0.044	3.320	2.708	0.566	2.313	4.008	0.571	2.962	0.237	0.228	0.058	0.030	15
16	0.042	3.289	2.141	0.464	5.800	2.654	0.970	3.070	0.220	0.178	0.058	0.028	16
17	0.037	2.350	1.443	0.342	5.750	1.476	0.778	3.262	0.220	0.205	0.058	0.024	17
18	0.037	2.025	0.970	0.366	4.950	1.030	0.556	2.579	0.193	0.203	0.058	0.024	18
19	0.038	1.683	0.708	0.437	3.442	0.980	0.455	1.865	0.190	0.156	0.050	0.023	19
20	0.101	1.007	0.575	0.387	2.087	0.828	0.384	1.319	0.178	0.135	0.043	0.022	20
21	0.127	0.788	0.493	0.345	1.346	0.687	0.595	1.010	0.160	0.120	0.043	0.022	21
22	0.178	0.622	0.442	0.363	0.760	0.587	2.441	1.030	0.158	0.106	0.032	0.025	22
23	0.090	0.560	0.403	0.620	0.615	0.491	1.875	1.060	0.150	0.100	0.032	0.028	23
24	0.065	0.537	0.340	0.461	0.518	0.653	1.258	1.001	0.135	0.106	0.037	0.028	24
25	0.057	0.485	0.275	0.339	0.397	1.062	0.890	0.827	0.158	0.084	0.032	0.028	25
26	0.067	0.629	0.275	0.256	0.340	1.607	0.785	0.701	0.160	0.081	0.037	0.032	26
27	0.116	0.890	0.225	0.193	0.300	2.083	0.832	0.615	0.154	0.072	0.043	0.028	27
28	0.064	1.644	0.159	0.170	0.287	1.165	1.351	0.545	0.158	0.072	0.043	0.032	28
29	0.104	1.245	0.127	0.185	0.270	-	4.846	0.520	0.135	0.074	0.043	0.032	29
30	0.324	0.811	0.096	0.673	0.255	-	6.250	0.718	0.127	0.307	0.032	0.030	30
31	-	0.765	-	0.672	0.245	-	6.109	-	0.115	-	0.024	0.028	31
Total	2.031	92.738	29.669	8.665	34.186	60.653	53.520	84.703	9.400	4.137	2.560	0.896	
Mean	0.068	2.992	0.989	0.279	1.103	2.166	1.726	2.823	0.303	0.138	0.083	0.029	

Annual Total ( ) 383.149

Daily Runoff STATION 7 Qda. Shugar

RIVER, IN THE BASIN OF ELEVATION 2,780 m UNIT cu.m/sec-day YEAR 1969 - 1970

DATE	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	DATE
1	0.028	0.032	0.081	5.700	0.953	4.183	1.658	0.570	2.225	1.200	0.326	0.126	1
2	0.025	0.032	0.071	4.933	0.841	4.433	1.675	0.523	1.883	1.200	0.326	0.126	2
3	0.023	0.029	0.065	4.008	0.685	2.775	1.165	0.652	2.058	1.200	0.326	0.126	3
4	0.022	0.024	0.373	4.250	0.553	2.092	0.610	3.761	2.350	1.320	0.326	0.028	4
5	0.022	0.023	1.274	5.450	0.890	1.395	0.745	6.212	4.698	1.260	0.326	0.006	5
6	0.022	0.021	1.350	4.900	1.702	0.938	0.665	7.520	3.292	0.733	0.326	0.005	6
7	0.022	0.019	0.565	4.859	5.475	0.919	0.614	8.806	2.425	0.376	0.326	0.005	7
8	0.022	0.022	0.278	3.500	5.500	0.665	1.755	8.373	1.850	0.360	0.300	0.005	8
9	0.022	0.026	0.185	2.866	5.159	1.192	2.000	6.868	1.550	0.360	0.292	0.006	9
10	0.022	0.024	0.165	2.150	4.050	1.978	1.598	5.691	3.717	0.424	0.292	0.005	10
11	0.022	0.024	1.346	1.617	2.716	0.791	2.703	5.016	5.200	0.424	0.300	0.005	11
12	0.019	0.024	3.533	2.283	2.650	0.614	5.577	3.825	4.400	0.375	0.326	0.005	12
13	0.019	0.024	1.690	2.675	5.050	0.506	6.408	2.766	3.225	0.424	0.326	0.005	13
14	0.019	0.025	1.095	2.825	5.300	0.430	6.502	3.241	2.575	0.392	0.326	0.005	14
15	0.019	0.031	3.975	2.566	4.567	0.362	6.295	5.750	2.450	0.326	0.326	0.005	15
16	0.017	0.067	3.458	3.400	2.817	0.329	6.334	5.216	5.540	0.309	0.326	0.005	16
17	0.017	0.056	1.883	4.375	2.016	0.316	5.751	5.816	6.466	0.326	0.326	0.005	17
18	0.017	0.060	0.987	6.370	1.208	0.900	4.600	6.025	6.613	0.326	0.326	0.006	18
19	0.017	0.049	0.516	6.640	0.862	2.046	3.441	6.125	6.015	0.292	0.317	0.006	19
20	0.017	0.045	0.363	6.246	4.525	3.284	2.275	5.588	5.158	0.292	0.292	0.006	20
21	0.017	0.045	0.280	5.716	5.425	1.991	1.566	4.683	3.358	0.292	0.292	0.006	21
22	0.017	0.322	0.295	5.298	4.483	2.200	1.150	3.416	2.225	0.266	0.292	0.006	22
23	0.017	0.985	2.653	5.000	2.984	2.450	0.918	2.725	1.850	0.292	0.292	0.006	23
24	0.019	1.798	5.183	4.316	2.300	2.250	1.172	2.275	1.717	0.292	0.292	0.006	24
25	0.045	1.484	5.391	4.283	1.700	1.809	2.108	2.250	1.417	0.275	0.292	0.007	25
26	0.028	0.786	5.516	5.183	1.483	2.800	2.005	2.916	1.271	0.326	0.317	0.009	26
27	0.028	0.357	5.225	5.150	1.096	2.650	1.773	4.016	1.078	0.351	0.326	0.014	27
28	0.028	0.151	5.200	4.366	0.858	2.450	0.848	3.291	1.006	0.360	0.215	0.007	28
29	0.028	0.149	5.475	2.792	0.693	-	0.728	2.600	0.910	0.360	0.190	0.012	29
30	0.028	0.116	5.500	1.775	0.779	-	0.622	2.100	0.815	0.360	0.173	0.018	30
31	-	0.095	-	1.144	1.775	-	0.570	-	0.518	-	0.156	0.011	31
Total	0.668	6.945	63.971	126.627	80.995	47.848	75.831	128.586	90.065	15.093	9.194	0.593	
Mean	0.022	0.224	2.132	4.085	2.613	1.709	2.446	8.572	2.905	0.503	0.296	0.019	
										Annual Total ( )		646.416	

Daily Runoff STATION 7 Qda. Shugar

RIVER, IN THE BASIN OF ELEVATION 2,780 m UNIT cu.m/sec-day YEAR 1970 - 1971

DATE	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	DATE
1	0.013	0.134	2.570	-	4.355	0.765	2.380	6.736	0.854	0.674	0.337	0.158	1
2	0.033	0.122	2.226	-	5.698	0.685	2.110	5.880	0.854	0.674	0.360	0.142	2
3	0.036	0.211	1.825	-	7.020	0.745	2.886	5.613	0.854	0.536	0.360	0.125	3
4	0.032	0.230	2.402	-	6.673	0.786	4.041	5.746	0.876	0.630	0.342	0.105	4
5	0.032	0.198	2.800	-	5.503	0.721	5.400	6.520	0.854	0.609	0.322	0.104	5
6	0.028	0.170	2.690	-	4.073	0.650	5.791	6.386	2.185	0.600	0.320	0.104	6
7	0.024	0.150	2.560	-	3.225	0.610	4.450	5.720	3.188	0.659	0.312	0.104	7
8	0.024	0.150	2.260	-	2.294	0.546	2.800	3.960	3.597	0.677	0.292	0.104	8
9	0.022	0.182	2.058	-	1.963	0.871	2.335	3.100	3.030	0.685	0.272	0.104	9
10	0.017	0.623	2.241	-	1.808	0.948	2.320	2.440	2.295	0.721	0.264	0.104	10
11	0.017	0.906	3.357	-	1.609	0.690	4.221	2.760	1.821	0.747	0.241	0.095	11
12	0.013	1.282	3.080	-	1.342	0.590	5.909	2.640	1.456	1.327	0.324	0.093	12
13	0.007	1.065	2.670	-	1.050	0.546	6.665	3.420	1.262	1.885	0.226	0.069	13
14	0.012	0.646	2.307	-	0.936	0.492	7.386	4.413	1.161	1.799	0.215	0.057	14
15	0.017	0.469	2.573	-	0.866	0.480	8.903	5.453	1.045	1.758	0.215	0.050	15
16	0.023	0.372	2.325	-	0.865	0.480	9.975	5.746	0.945	1.632	0.215	0.041	16
17	0.017	0.605	2.000	-	0.930	0.734	9.975	5.533	0.920	1.276	0.215	0.035	17
18	0.019	1.216	1.758	-	0.866	1.191	9.695	4.013	0.832	1.055	0.215	0.034	18
19	0.017	0.914	1.487	-	0.831	2.725	8.678	2.980	0.788	0.934	0.215	0.034	19
20	0.013	0.611	1.388	-	0.831	3.040	7.070	2.400	0.929	0.864	0.215	0.034	20
21	0.014	0.468	1.232	-	1.093	3.145	6.306	7.915	0.962	0.784	0.215	0.027	21
22	0.025	0.393	1.431	-	0.969	5.269	5.950	1.585	0.920	0.728	0.215	0.027	22
23	0.019	0.360	1.681	-	0.737	5.506	6.836	1.480	0.870	0.685	0.215	0.034	23
24	0.020	0.549	1.406	-	0.656	4.956	7.801	1.480	0.932	0.648	0.200	0.042	24
25	0.020	0.728	1.275	-	0.685	4.578	8.486	1.480	1.120	0.621	0.200	0.033	25
26	0.017	0.760	1.874	-	0.650	3.785	7.735	1.315	1.061	0.585	0.180	0.030	26
27	0.017	1.119	2.412	-	0.837	2.987	6.811	1.190	1.020	0.558	0.170	0.026	27
28	0.020	1.949	2.430	-	1.409	2.280	5.500	1.070	0.962	0.525	0.180	0.026	28
29	0.024	1.570	2.490	-	1.325	-	5.275	0.839	0.920	0.489	0.185	0.027	29
30	0.040	1.722	2.963	-	1.691	-	5.275	0.609	0.881	0.486	0.176	0.035	30
31	-	2.166	-	-	3.735	-	7.165	-	0.788	-	0.155	0.045	31
Total	0.632	22.040	65.771	-	66.521	50.692	185.211	110.404	40.182	25.851	7.478	2.048	
Mean	0.021	0.711	2.192	-	2.146	1.810	5.974	3.680	1.296	0.862	0.241	0.066	
										Annual Total ( )			

Daily Runoff STATION 7 Qda. Shugar

RIVER, IN THE BASIN OF ELEVATION 2,780 m UNIT cu.m/sec-day YEAR 1971 - 1972

DATE	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	DATE
1	0.048	0.086	2.012	1.513	1.284	1.113	5.593	3.118	1.913	0.806	0.110	0.052	1
2	0.035	0.086	1.852	1.800	1.233	1.076	4.806	2.583	1.704	0.729	0.099	0.047	2
3	0.032	0.204	1.490	1.916	1.204	1.044	3.483	2.054	1.433	0.679	0.099	0.045	3
4	0.030	0.460	1.776	1.660	1.305	0.921	3.303	1.487	1.280	0.632	0.099	0.053	4
5	0.033	0.833	2.393	1.514	1.401	0.841	6.526	1.400	1.185	0.591	0.093	0.065	5
6	0.026	1.150	2.406	1.353	1.334	0.780	6.130	1.350	1.074	0.556	0.083	0.070	6
7	0.026	1.150	2.873	1.238	1.284	0.772	5.710	1.162	1.121	0.528	0.079	0.081	7
8	0.053	1.379	3.513	1.164	1.233	0.982	5.756	1.009	1.543	0.503	0.079	0.069	8
9	0.068	1.379	3.486	1.108	1.196	1.268	6.036	1.037	1.666	0.483	0.079	0.068	9
10	0.068	1.558	2.966	1.022	1.161	1.546	5.966	3.720	1.495	0.453	0.397	0.059	10
11	0.075	1.456	2.025	0.934	1.054	1.525	5.036	4.653	1.520	0.436	0.717	0.054	11
12	0.086	1.354	1.294	0.868	0.990	1.312	3.566	4.980	1.590	0.428	0.488	0.057	12
13	0.062	1.377	1.091	0.777	1.014	1.201	3.850	6.358	1.476	0.411	0.183	0.063	13
14	0.063	1.254	0.940	0.742	1.044	1.086	3.833	6.725	1.416	0.411	0.123	0.061	14
15	0.052	1.150	0.870	0.712	0.977	0.916	5.903	6.775	1.245	0.393	0.119	0.055	15
16	0.061	1.080	0.870	0.684	0.894	0.798	6.526	6.250	1.125	0.376	0.114	0.052	16
17	0.084	1.080	0.799	0.663	0.830	0.753	5.943	5.145	1.095	0.363	0.103	0.052	17
18	0.075	0.992	0.692	0.663	0.780	0.714	5.056	4.746	1.048	0.346	0.096	0.053	18
19	0.048	0.870	0.638	0.766	0.753	0.723	4.660	4.816	0.970	0.346	0.082	0.051	19
20	0.037	0.835	0.651	1.113	0.714	0.660	4.683	4.212	0.961	0.323	0.089	0.049	20
21	0.026	0.800	1.551	1.318	0.700	0.644	6.060	3.601	1.097	0.296	0.079	0.063	21
22	0.026	1.150	1.786	1.369	0.684	0.628	6.410	3.349	1.410	0.294	0.065	0.063	22
23	0.033	1.532	2.044	1.241	0.686	0.609	5.966	3.433	2.761	0.294	0.061	0.068	23
24	0.028	0.990	1.873	1.204	0.712	0.600	5.266	3.559	3.110	0.286	0.074	0.060	24
25	0.047	2.172	1.490	1.233	0.700	0.607	4.110	3.748	2.980	0.294	0.079	0.057	25
26	0.050	2.044	0.940	1.412	0.651	0.718	3.700	4.011	2.485	0.294	0.074	0.052	26
27	0.050	2.044	0.936	1.444	0.611	1.033	3.500	4.142	2.039	0.285	0.059	0.052	27
28	0.066	2.044	1.607	1.404	0.593	1.166	3.316	3.559	1.906	0.272	0.062	0.055	28
29	0.131	2.044	1.926	1.364	0.619	1.436	3.840	3.916	1.697	0.266	0.054	0.052	29
30	0.123	2.108	2.172	1.438	1.086	-	4.380	3.790	1.400	0.250	0.049	0.052	30
31	-	2.044	-	1.366	1.145	-	3.966	-	1.200	-	0.041	0.059	31
Total	1.642	38.705	50.962	37.003	29.872	27.463	152.879	110.688	48.945	12.624	4.028	1.789	
Mean	0.055	1.248	1.699	1.193	0.963	0.947	4.931	3.689	1.578	0.420	0.129	0.057	

Annual Total ( ) 516.600

Daily Runoff STATION 7 Qda. Shugar

RIVER, IN THE BASIN OF ELEVATION 2,780 m UNIT cu.m/sec-day YEAR 1972 - 1973

DATE	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	DATE
1	0.046	0.323	0.125	3.401	0.476	1.613	1.720	7.260	0.864	0.637	0.409	1.720	1
2	0.080	0.306	0.125	3.196	0.473	1.284	1.160	8.137	0.901	0.707	0.409	1.726	2
3	0.133	0.416	0.115	3.802	0.473	1.112	2.252	8.040	1.005	0.720	0.395	1.445	3
4	0.097	3.195	0.091	4.667	0.437	1.006	2.755	7.552	0.968	0.691	0.357	1.190	4
5	0.112	3.401	0.074	5.396	0.453	1.923	3.561	6.350	2.348	0.620	0.368	0.963	5
6	0.106	5.223	0.074	5.921	0.492	2.703	3.912	5.486	1.933	0.557	0.376	0.696	6
7	0.088	5.841	0.074	5.454	0.492	4.763	5.388	5.453	1.363	0.520	0.357	0.608	7
8	0.063	4.209	0.097	3.849	0.747	4.965	5.757	6.057	1.131	0.484	0.335	0.538	8
9	0.067	3.095	0.074	3.308	2.020	4.461	5.044	6.545	0.975	0.428	0.273	0.423	9
10	0.070	3.197	0.077	3.919	6.204	3.476	3.733	6.870	0.849	0.424	0.163	0.356	10
11	0.070	3.124	0.119	7.825	6.853	2.689	2.982	6.675	0.805	0.424	0.167	0.288	11
12	0.070	2.497	1.989	9.000	5.092	2.205	2.415	6.772	0.775	0.404	0.167	0.278	12
13	0.074	2.085	3.312	7.212	4.435	1.631	2.255	6.415	0.671	0.376	0.156	0.290	13
14	0.088	1.655	5.150	6.650	4.688	1.106	4.443	6.480	0.627	0.372	0.141	0.290	14
15	0.080	1.142	4.825	6.417	4.410	0.911	5.047	6.252	0.597	0.328	0.120	0.278	15
16	0.070	0.851	2.852	4.900	3.425	0.787	3.435	5.677	0.544	0.328	0.080	0.220	16
17	0.268	0.735	1.364	3.465	3.198	0.724	3.105	4.536	0.508	0.316	0.029	0.169	17
18	1.270	0.609	0.815	5.425	4.562	0.635	3.140	4.230	0.490	0.280	0.061	0.164	18
19	1.436	0.548	0.583	6.125	3.627	0.603	3.140	3.903	0.479	0.260	0.028	0.162	19
20	4.006	0.482	0.435	4.696	6.633	0.570	3.122	2.957	0.465	0.280	0.047	0.185	20
21	3.575	0.427	0.372	3.401	6.351	0.557	2.807	2.472	0.479	0.280	0.067	0.199	21
22	2.900	0.361	0.906	2.828	4.915	1.286	2.360	2.243	0.479	0.280	0.079	0.176	22
23	2.900	0.323	2.025	1.996	4.233	3.551	1.640	2.179	0.459	0.280	0.058	0.164	23
24	2.108	0.282	3.537	1.316	4.688	5.269	1.500	2.026	0.452	0.225	0.036	0.148	24
25	1.093	0.224	5.046	1.092	3.779	4.208	1.360	1.653	0.427	0.239	0.074	0.143	25
26	0.678	0.232	8.350	0.851	2.640	2.810	1.660	1.528	0.425	0.559	0.090	0.106	26
27	0.532	0.227	8.670	0.661	2.266	2.519	4.248	1.745	0.425	0.691	0.154	0.097	27
28	0.440	0.224	7.424	0.554	2.024	2.169	6.600	1.645	0.409	0.628	0.281	0.058	28
29	0.378	0.205	7.337	0.529	2.362	-	5.652	1.424	0.398	0.500	0.500	0.096	29
30	0.334	0.172	5.577	0.479	2.423	-	4.825	1.224	0.418	0.428	0.557	0.111	30
31	-	0.144	-	0.437	2.181	-	5.107	-	0.490	-	0.981	0.143	31
Total	23.232	45.755	71.614	118.772	97.052	61.536	106.125	139.786	23.159	13.266	7.315	13.430	
Mean	0.774	1.476	2.387	3.831	3.130	2.197	3.423	4.659	0.747	0.442	0.236	0.433	

Annual Total ( ) 721.042

Daily Runoff STATION 7 Qda. Shugar

RIVER, IN THE BASIN OF ELEVATION 2,780 m UNIT cu.m/sec-day YEAR 1973 - 1974

DATE	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	DATE
1	0.166	0.762											1
2	0.220	0.706											2
3	0.232	0.729											3
4	0.178	0.715											4
5	0.143	0.601											5
6	0.134	0.545											6
7	0.122	0.619											7
8	0.117	0.782											8
9	0.117	1.333											9
10	0.122	1.764											10
11	0.122	1.852											11
12	0.103	1.814											12
13	0.106	1.440											13
14	0.131	1.185											14
15	0.134	1.004											15
16	0.173	0.875											16
17	0.230	0.870											17
18	0.313	1.097											18
19	0.398	1.722											19
20	0.424	2.948											20
21	2.063	1.643											21
22	1.534	1.268											22
23	1.108	1.020											23
24	1.129	0.979											24
25	1.401	0.958											25
26	1.495	0.917											26
27	1.814	0.813											27
28	1.638	0.711											28
29	1.181	0.626											29
30	0.901	0.643											30
31	-	0.796											31
Total	17.949	33.737											
Mean	0.598	1.088											

海業特 3－1 A4 トレ

Annual Total ( )

44.3 100×1×30

Daily Runoff STATION 8 Qda. Chonta

RIVER, IN THE BASIN OF ELEVATION UNIT cu.m/sec-day YEAR 1963

DATE	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	DATE
1	-	0.500	3.700	2.200	1.100	0.700	0.363	0.314	0.254	0.328	0.490	0.895	1
2	-	0.700	1.700	1.850	1.200	0.700	0.331	0.314	0.254	0.328	0.690	1.030	2
3	-	0.764	0.860	1.700	1.500	0.700	0.331	0.314	0.273	0.389	1.320	1.540	3
4	-	0.890	1.700	1.550	1.600	0.700	0.331	0.327	0.273	0.389	1.650	1.750	4
5	-	0.980	2.200	1.700	1.600	0.700	0.331	0.327	0.273	0.342	1.540	1.650	5
6	-	0.890	2.950	4.000	1.500	0.690	0.331	0.327	0.292	0.328	1.030	1.430	6
7	-	0.800	2.700	4.700	1.300	0.690	0.331	0.327	0.292	0.328	0.690	1.100	7
8	-	0.665	2.200	6.400	1.200	0.690	0.331	0.327	0.292	0.328	0.625	0.965	8
9	-	0.530	2.950	5.400	1.100	0.550	0.345	0.327	0.273	0.328	0.490	0.830	9
10	-	0.498	2.850	4.700	1.100	0.700	0.345	0.327	0.273	0.328	0.490	0.760	10
11	-	0.800	6.459	4.400	1.100	0.600	0.345	0.344	0.292	0.328	0.420	0.690	11
12	-	0.710	6.200	4.200	1.225	0.600	0.395	0.344	0.328	0.328	0.420	0.895	12
13	-	0.620	5.450	3.200	1.250	0.600	0.395	0.344	0.328	0.389	0.420	1.850	13
14	-	0.530	4.200	2.580	1.250	0.900	0.363	0.344	0.328	0.342	0.370	2.300	14
15	-	0.485	3.770	1.850	1.220	0.900	0.339	0.344	0.263	0.389	0.370	2.400	15
16	-	0.440	3.450	1.700	1.000	0.900	0.339	0.344	0.283	0.425	0.370	2.300	16
17	-	0.410	3.200	1.620	1.000	0.900	0.339	0.319	0.281	0.410	0.315	2.050	17
18	-	0.395	2.700	1.620	1.000	0.800	0.339	0.319	0.328	0.389	0.315	1.850	18
19	-	0.350	2.700	1.550	0.750	0.800	0.345	0.319	0.328	0.342	0.315	1.750	19
20	-	0.395	2.200	3.700	0.750	0.600	0.345	0.319	0.328	0.335	0.490	1.950	20
21	-	0.440	2.200	3.050	0.750	0.500	0.345	0.319	0.328	0.328	1.030	1.850	21
22	-	0.485	3.950	4.200	0.750	0.400	0.345	0.319	0.328	0.328	1.650	1.650	22
23	-	0.395	1.950	3.400	0.750	0.400	0.345	0.319	0.328	0.328	1.540	1.430	23
24	-	0.342	2.200	2.900	0.750	0.370	0.338	0.340	0.281	0.342	0.965	1.200	24
25	-	0.485	4.310	2.200	0.800	0.370	0.316	0.340	0.281	0.342	0.760	1.320	25
26	-	1.520	7.200	1.850	0.800	0.370	0.316	0.340	0.281	0.389	0.625	1.430	26
27	-	1.950	5.200	1.600	0.800	0.370	0.316	0.300	0.281	0.389	0.625	1.850	27
28	-	2.700	4.700	1.510	0.800	0.370	0.316	0.300	0.281	0.342	0.625	2.500	28
29	-	-	4.450	1.350	0.800	0.370	0.316	0.300	0.261	0.389	1.100	4.500	29
30	-	-	2.950	1.200	0.800	0.370	0.316	0.300	0.273	0.411	0.895	4.070	30
31	-	-	2.580	-	0.800	-	0.316	0.300	-	0.400	-	3.630	31
Total	-	20.669	105.820	83.880	32.345	18.310	10.499	10.048	8.799	11.081	22.635	55.415	
Mean	-	0.738	3.413	2.796	1.043	0.610	0.338	0.324	0.293	0.357	0.754	1.787	

Annual Total ( )

Daily Runoff STATION 8 Qda. Chonta

RIVER, IN THE BASIN OF ELEVATION UNIT cu.m/sec-day YEAR 1964

DATE	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	DATE
1	3.250	1.350	1.140	4.130	1.500	0.770	0.453	0.475	0.710	1.770	1.088	0.870	1
2	3.000	1.490	1.140	4.550	1.620	0.770	0.453	0.475	0.710	1.496	1.296	0.800	2
3	2.870	1.490	1.140	4.340	1.500	0.770	0.453	0.475	0.630	1.344	1.950	0.800	3
4	2.610	1.490	1.140	3.920	1.500	0.770	0.500	0.475	0.630	1.192	2.170	0.800	4
5	2.350	1.630	1.140	3.160	1.860	0.770	0.500	0.475	0.630	1.116	2.170	1.240	5
6	1.960	2.090	1.070	2.530	2.220	0.830	0.500	0.475	0.550	1.040	2.390	1.025	6
7	1.560	2.090	1.070	2.290	2.580	0.890	0.500	0.457	0.550	1.040	2.280	1.240	7
8	1.420	2.090	1.070	2.400	2.460	0.890	0.500	0.457	0.550	0.994	2.170	1.025	8
9	1.280	2.220	1.000	2.170	2.100	0.890	0.500	0.457	0.550	1.192	2.390	0.870	9
10	1.210	2.090	0.930	2.050	1.860	0.890	0.500	0.457	0.550	1.770	2.280	0.800	10
11	2.090	1.700	1.000	1.965	1.620	0.890	0.500	0.457	0.470	1.420	2.060	0.720	11
12	2.220	1.490	1.210	1.880	1.390	0.830	0.453	0.457	0.470	1.268	2.060	0.720	12
13	2.090	1.350	1.070	1.880	1.280	0.830	0.453	0.457	0.470	1.116	1.950	0.660	13
14	1.830	1.210	1.000	1.880	1.280	0.830	0.650	0.457	0.470	1.040	1.730	0.660	14
15	1.490	1.210	0.930	1.715	1.170	0.830	0.650	0.457	0.470	1.040	1.730	0.720	15
16	1.350	1.210	0.930	1.800	1.170	0.830	0.725	0.457	0.470	0.994	1.840	0.720	16
17	1.350	1.210	1.140	1.800	1.170	0.770	0.650	0.457	0.470	0.994	1.840	0.660	17
18	1.350	1.210	2.350	1.630	1.060	0.770	0.550	0.457	0.420	0.948	1.730	0.660	18
19	1.350	1.210	2.090	1.515	1.060	0.770	0.550	0.457	0.420	0.948	3.700	0.600	19
20	1.350	1.350	1.830	1.515	1.060	0.770	0.500	0.475	0.420	0.902	4.180	0.600	20
21	1.350	1.700	1.630	1.515	0.950	0.770	0.550	0.475	1.045	0.902	3.700	0.600	21
22	1.350	1.960	1.490	1.515	0.950	0.770	0.500	0.500	1.700	0.902	3.220	0.600	22
23	1.350	1.960	1.350	1.515	0.950	0.770	0.500	0.650	1.525	0.902	2.980	0.600	23
24	1.420	2.090	1.350	1.515	0.890	0.770	0.500	0.700	1.525	0.994	2.740	0.600	24
25	1.350	2.090	1.630	1.570	0.890	0.710	0.500	0.850	1.430	0.948	2.170	0.660	25
26	1.350	2.090	1.560	1.400	0.890	0.710	0.500	0.725	1.335	0.902	1.840	0.720	26
27	1.280	1.830	1.490	1.340	0.890	0.710	0.500	1.000	1.430	0.902	1.620	1.100	27
28	1.280	1.560	1.490	1.340	0.890	1.710	0.453	0.850	1.525	0.856	1.510	1.520	28
29	1.280	1.490	1.420	1.340	0.830	0.710	0.453	0.700	2.000	0.948	1.348	1.520	29
30	1.280	-	1.830	1.570	0.830	0.710	0.453	0.675	1.815	0.948	1.348	1.240	30
31	1.280	-	2.350	-	0.830		0.453	0.650	-	0.948	-	0.870	31
Total	52.550	47.950	41.980	63.740	41.250	23.700	15.902	17.041	25.940	33.776	65.480	26.220	
Mean	1.695	1.653	1.354	2.124	1.331	0.790	0.513	0.550	0.865	1.090	2.182	0.846	

Annual Total ( ) 455.529

Daily Runoff STATION 8 Oda. Chonta

RIVER, IN THE BASIN OF ELEVATION UNIT cu.m/sec-day YEAR 1965

DATE	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	DATE
1	0.750	0.592	2.215	4.150	2.000	0.950	0.590	0.532	0.400	1.780	1.120	0.900	1
2	0.810	0.592	2.120	4.020	2.000	0.950	0.590	0.532	0.400	0.900	0.900	0.820	2
3	0.870	0.592	2.055	3.750	1.850	0.950	0.666	0.532	0.400	0.909	0.820	0.740	3
4	0.810	0.640	1.990	3.240	1.600	0.950	0.700	0.532	0.400	1.560	0.740	0.740	4
5	0.810	0.624	1.990	3.350	1.400	0.950	0.666	0.532	0.450	1.340	0.740	0.740	5
6	0.930	0.608	2.120	3.350	1.200	0.800	0.628	0.532	0.450	0.900	0.660	0.740	6
7	1.116	0.608	2.600	3.350	1.150	0.700	0.628	0.515	0.420	0.820	0.660	0.740	7
8	0.990	0.608	3.520	3.240	1.150	0.700	0.628	0.515	0.450	0.740	0.580	0.740	8
9	0.990	0.592	5.050	3.000	1.050	0.700	0.628	0.515	0.450	0.740	0.740	0.660	9
10	1.050	0.592	4.400	3.000	1.050	0.700	0.590	0.515	0.470	0.740	0.900	0.580	10
11	0.990	0.608	3.960	3.000	1.050	0.700	0.590	0.515	0.740	0.820	1.120	0.580	11
12	0.870	0.592	3.520	2.795	0.990	0.700	0.590	0.515	0.900	1.560	2.180	0.580	12
13	0.810	0.624	3.300	2.390	0.990	0.700	0.590	0.487	0.580	1.780	2.000	0.500	13
14	0.750	0.800	3.150	2.185	0.990	0.800	0.500	0.487	0.580	1.340	1.340	0.500	14
15	0.750	0.960	4.620	1.980	0.990	0.800	0.500	0.487	0.740	0.900	2.000	0.740	15
16	0.750	0.960	3.520	2.185	1.050	0.800	0.500	0.487	0.660	1.340	2.920	0.740	16
17	0.810	0.960	3.520	2.185	1.050	0.800	0.489	0.487	0.580	2.900	3.740	0.740	17
18	0.750	0.880	3.150	1.980	1.050	0.700	0.489	0.444	0.500	2.960	4.620	1.120	18
19	0.750	1.040	3.520	1.845	0.990	0.700	0.500	0.438	0.470	2.980	4.620	1.560	19
20	0.702	1.528	4.180	1.700	0.990	0.550	0.500	0.444	0.450	3.080	4.400	1.560	20
21	0.702	2.820	4.180	1.435	1.050	0.550	0.489	0.444	0.450	3.020	3.520	1.780	21
22	0.702	2.950	3.520	1.435	0.990	0.550	0.489	0.444	0.450	3.300	3.180	2.920	22
23	0.654	3.100	3.020	1.435	0.990	0.550	0.489	0.444	0.450	3.740	3.000	2.940	23
24	0.654	3.100	2.740	1.301	0.990	0.550	0.496	0.444	0.450	3.240	2.940	2.900	24
25	0.654	2.690	2.400	1.100	0.990	0.550	0.496	0.444	0.450	3.000	2.720	2.720	25
26	0.702	2.170	2.120	1.200	0.990	0.550	0.496	0.450	0.450	3.000	2.180	2.180	26
27	0.990	2.040	2.120	1.700	0.990	0.550	0.500	0.450	0.450	3.060	2.000	2.180	27
28	0.810	1.800	2.400	1.570	0.990	0.550	0.500	0.450	0.470	3.000	1.560	0.780	28
29	0.702	-	3.740	1.435	0.990	0.550	0.500	0.400	0.580	2.720	1.340	1.560	29
30	0.654	-	5.280	1.435	0.990	0.550	0.500	0.400	1.340	2.000	1.120	1.340	30
31	0.558	-	4.620	-	0.990		0.500	0.400	-	1.340	-	1.340	31
Total	24.840	35.670	100.640	70.740	35.540	21.100	17.017	14.813	16.030	61.700	60.360	39.660	
Mean	0.803	1.274	3.246	2.358	1.146	0.703	0.549	0.478	0.534	1.990	2.012	1.279	

Annual Total ( ) 498.110

Daily Runoff STATION 8 Oda. Chonta

RIVER, IN THE BASIN OF ELEVATION UNIT cu.m/sec-day YEAR 1966

DATE	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	DATE
1	2.240	1.514	1.202	0.630	0.565	0.675	0.434	0.400	0.350	0.370	3.300	2.000	1
2	3.750	1.514	1.678	0.695	0.630	0.675	0.434	0.450	0.350	0.430	2.520	1.240	2
3	4.350	1.350	2.826	0.760	0.825	0.623	0.434	0.450	0.400	0.400	1.320	1.090	3
4	4.350	2.498	2.170	0.695	1.075	0.571	0.434	0.400	0.350	0.430	1.090	0.980	4
5	3.900	2.662	1.842	0.630	1.200	0.571	0.434	0.400	0.350	0.600	0.980	0.900	5
6	3.600	3.154	1.514	0.630	1.075	0.571	0.434	0.400	0.350	1.100	2.220	0.850	6
7	3.280	2.990	1.276	0.630	1.075	0.571	0.434	0.400	0.350	0.600	1.450	0.780	7
8	3.440	2.334	1.276	0.630	1.200	0.571	0.390	0.400	0.350	0.550	1.240	0.780	8
9	3.900	2.170	1.276	0.630	0.950	0.571	0.390	0.400	0.350	1.400	1.090	0.850	9
10	4.500	2.006	1.276	0.630	0.825	0.571	0.390	0.400	0.350	2.400	1.240	0.780	10
11	4.800	1.678	1.128	0.630	0.760	0.519	0.390	0.400	0.350	4.400	1.320	0.740	11
12	4.800	1.514	1.128	0.630	0.760	0.519	0.390	0.400	0.350	3.600	1.240	0.700	12
13	4.500	1.350	1.054	0.565	0.760	0.571	0.381	0.400	0.350	6.750	1.090	0.700	13
14	4.200	1.276	1.054	0.565	0.695	0.519	0.381	0.400	0.300	7.450	0.980	0.650	14
15	3.900	1.276	1.128	0.500	0.695	0.519	0.381	0.400	0.250	6.150	0.940	0.620	15
16	3.280	1.128	1.054	0.500	0.695	0.519	0.381	0.350	0.225	5.250	0.900	0.620	16
17	2.880	1.128	1.054	0.500	0.825	0.467	0.381	0.350	0.225	4.000	0.780	0.620	17
18	2.380	1.128	0.980	0.435	0.825	0.467	0.381	0.350	0.225	3.600	0.940	0.620	18
19	1.960	0.980	0.980	0.565	1.075	0.467	0.381	0.350	0.225	5.050	1.450	0.580	19
20	1.680	0.906	1.276	0.565	0.950	0.467	0.381	0.350	0.225	5.050	1.240	0.580	20
21	1.540	1.054	1.202	0.565	0.825	0.467	0.340	0.350	0.225	5.050	1.040	0.580	21
22	1.400	1.350	1.202	0.500	0.760	0.467	0.340	0.400	0.225	5.250	1.090	0.580	22
23	1.290	1.678	1.128	0.500	0.760	0.467	0.340	0.350	0.225	5.250	1.040	0.620	23
24	1.180	1.514	0.980	0.500	0.950	0.467	0.340	0.350	0.225	4.850	1.450	0.700	24
25	1.070	1.276	0.980	0.500	1.075	0.467	0.345	0.350	0.225	4.400	1.450	1.040	25
26	0.960	1.128	0.906	0.565	1.075	0.467	0.345	0.350	0.225	3.200	1.150	1.040	26
27	0.850	1.054	0.906	0.500	1.075	0.467	0.345	0.350	0.225	2.800	1.450	1.040	27
28	0.850	1.054	0.906	0.500	0.825	0.467	0.345	0.350	0.225	2.250	2.080	1.040	28
29	1.180	-	0.832	0.500	0.825	0.467	0.345	0.350	0.225	1.750	2.900	1.040	29
30	1.540	-	0.832	0.565	0.760	0.467	0.345	0.350	0.225	1.400	2.220	1.040	30
31	1.540	-	0.758	-	0.760	-	0.345	0.350	-	0.959	-	1.040	31
Total	85.010	44.664	37.804	17.210	27.150	15.674	11.811	11.750	8.525	96.730	43.120	26.440	
Mean	2.742	1.595	1.219	0.574	0.876	0.522	0.381	0.379	0.284	3.120	1.437	0.853	

Annual Total ( ) 425.888

Daily Runoff STATION 8 Qila. Chonta

RIVER, IN THE BASIN OF ELEVATION UNIT cu.m/sec-day YEAR 1967

DATE	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	DATE
1	0.500	1.600	8.500	0.755	1.055	0.603	0.390	0.330	0.310	0.340	2.388	0.550	1
2	0.500	1.250	6.300	0.755	0.900	0.510	0.390	0.330	0.310	0.340	1.758	0.550	2
3	0.550	1.200	5.100	0.690	0.825	0.510	0.390	0.330	0.310	0.340	1.096	0.550	3
4	0.600	1.000	5.100	0.630	0.825	0.510	0.390	0.330	0.310	0.340	0.781	0.550	4
5	0.750	1.100	5.750	0.630	0.755	0.510	0.390	0.330	0.310	0.340	0.643	0.550	5
6	1.000	1.450	5.100	0.575	0.755	0.474	0.390	0.330	0.310	0.340	0.555	0.550	6
7	0.850	3.000	4.600	0.575	0.690	0.470	0.390	0.330	0.310	0.340	0.555	0.550	7
8	0.800	8.500	4.000	0.575	0.630	0.470	0.390	0.330	0.310	0.340	0.529	0.550	8
9	0.800	8.000	2.650	0.575	0.630	0.470	0.390	0.330	0.310	0.340	0.558	0.550	9
10	0.950	7.450	1.800	0.525	0.630	0.460	0.390	0.330	0.310	0.340	0.529	0.563	10
11	1.450	6.300	1.450	0.525	0.630	0.460	0.390	0.330	0.310	0.340	0.500	1.015	11
12	2.650	4.000	1.250	0.525	0.575	0.460	0.405	0.330	0.310	0.340	0.500	1.528	12
13	3.150	2.100	1.200	0.525	0.639	0.460	0.575	0.330	0.310	0.435	0.500	1.135	13
14	2.650	1.600	2.000	0.525	0.690	0.486	0.390	0.330	0.310	0.413	0.500	0.767	14
15	1.600	1.200	5.100	0.630	0.755	0.460	0.390	0.330	0.310	0.423	0.500	0.642	15
16	1.000	1.100	9.100	0.755	0.755	0.460	0.390	0.330	0.310	0.420	0.645	0.600	16
17	0.850	1.100	8.500	0.755	0.825	0.460	0.390	0.273	0.310	0.420	0.801	0.600	17
18	0.850	1.450	7.450	0.755	1.210	0.460	0.390	0.273	0.310	1.024	0.802	0.767	18
19	0.950	1.200	6.900	0.975	1.210	0.459	0.390	0.273	0.310	0.649	1.538	0.800	19
20	1.100	1.600	5.100	1.210	1.210	0.459	0.390	0.273	0.310	0.502	1.492	0.708	20
21	1.000	1.600	3.600	0.975	1.055	0.459	0.390	0.273	0.310	0.600	1.213	0.608	21
22	0.850	1.800	2.100	1.055	0.900	0.459	0.390	0.273	0.310	0.727	0.950	0.600	22
23	1.000	3.600	1.800	0.975	0.900	0.459	0.390	0.273	0.310	0.849	0.803	0.579	23
24	1.100	6.900	1.450	0.975	0.900	0.570	0.393	0.273	0.310	0.727	0.741	0.596	24
25	0.950	11.900	1.250	1.920	0.825	0.570	0.390	0.273	0.310	1.730	0.648	0.600	25
26	0.950	15.200	1.200	2.155	0.755	0.570	0.393	0.273	0.310	4.650	0.610	0.625	26
27	0.950	16.300	1.900	2.075	0.755	0.570	0.390	0.273	0.310	3.387	0.585	1.525	27
28	0.800	13.000	1.000	1.840	0.755	0.592	0.390	0.273	0.310	2.121	0.550	4.575	28
29	0.750	-	1.100	1.525	0.690	0.405	0.390	0.273	0.310	1.933	0.550	3.400	29
30	1.000	-	1.100	1.365	0.690	0.405	0.390	0.273	0.310	1.975	0.550	2.350	30
31	1.800	-	0.800	-	0.690	-	0.390	0.273	-	3.850	-	1.500	31
Total	34.700	126.500	113.350	28.325	25.100	14.580	12.290	9.375	9.300	30.915	24.370	31.033	
Mean	1.119	4.518	3.656	9.442	0.810	0.486	0.396	0.302	0.310	0.997	0.812	1.001	
										Annual Total ( )		459.838	

Daily Runoff STATION 9 Jadibamba

RIVER, IN THE BASIN OF ELEVATION 3,550 m UNIT cu.m/sec-day YEAR 1966 - 1967

DATE	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	DATE
1	0.026	0.034	0.940	-	0.240	2.450	1.726	-	-	0.149	0.055	0.050	1
2	0.026	0.052	1.025	-	0.270	1.820	1.632	-	-	0.203	0.070	0.044	2
3	0.026	0.016	0.980	-	0.865	1.225	1.350	-	-	0.257	0.083	0.044	3
4	0.026	0.175	1.100	-	0.580	1.040	0.952	-	-	0.243	0.055	0.044	4
5	0.026	0.175	1.190	-	0.900	0.865	0.820	-	-	0.240	0.055	0.044	5
6	0.026	0.320	1.025	-	0.995	0.820	0.748	-	-	0.193	0.055	0.044	6
7	0.026	0.380	1.470	-	1.040	0.580	1.226	-	-	0.170	0.055	0.044	7
8	0.026	0.485	1.290	-	0.950	1.280	2.616	-	-	0.149	0.055	0.035	8
9	0.026	0.550	1.290	-	0.820	1.820	2.616	-	-	0.193	0.055	0.035	9
10	0.026	0.750	1.330	-	0.865	1.280	1.040	-	-	0.193	0.055	0.035	10
11	0.026	0.860	1.378	-	0.700	0.995	0.952	-	-	0.193	0.055	0.035	11
12	0.026	0.860	1.520	-	0.700	0.745	1.164	-	-	0.149	0.055	0.035	12
13	0.026	0.860	1.420	-	0.745	0.640	1.632	-	-	0.125	0.070	0.035	13
14	0.029	0.860	1.715	-	0.820	1.040	2.036	-	-	0.125	0.105	0.028	14
15	0.029	0.900	1.760	-	0.820	0.600	8.000	-	-	0.105	0.105	0.030	15
16	0.050	0.940	1.900	-	0.865	0.675	8.300	-	-	0.149	0.083	0.035	16
17	0.050	1.025	1.670	-	0.900	0.580	6.300	-	-	0.149	0.070	0.044	17
18	0.080	0.980	1.620	-	3.200	0.700	3.120	-	-	0.125	0.070	0.044	18
19	0.105	0.940	1.420	0.300	2.800	0.580	2.144	-	-	0.125	0.070	0.044	19
20	0.080	0.980	1.330	0.240	3.450	0.745	1.164	-	-	0.105	0.055	0.044	20
21	0.050	1.150	1.190	0.215	1.920	0.640	0.952	-	-	0.105	0.070	0.044	21
22	0.029	1.290	1.100	0.185	1.280	0.640	0.712	-	-	0.083	0.105	0.044	22
23	0.029	1.290	1.070	0.130	1.100	0.950	0.612	-	-	0.083	0.105	0.044	23
24	0.029	1.290	1.190	0.185	0.950	1.160	1.584	-	-	0.070	0.083	0.044	24
25	0.029	1.290	1.190	0.185	0.950	12.000	0.528	-	-	0.070	0.070	0.035	25
26	0.026	1.420	1.190	0.185	1.820	5.900	0.272	-	-	0.070	0.055	0.035	26
27	0.026	1.560	1.190	0.130	1.280	7.600	0.612	-	-	0.070	0.055	0.035	27
28	0.026	1.378	1.240	0.240	1.040	4.000	0.712	-	-	0.055	0.055	0.035	28
29	0.026	1.330	1.240	0.240	0.900	-	1.147	-	-	0.055	0.055	0.035	29
30	0.029	0.825	1.240	0.240	4.450	-	1.147	-	-	0.055	0.036	0.035	30
31	-	1.378	-	0.240	3.300	-	1.100	-	-	-	0.036	0.035	31
Total	1.060	26.343	39.213	-	41.515	53.370	57.916	-	-	4.056	2.056	1.214	
Mean	0.035	0.850	1.308	-	1.339	1.906	1.868	-	-	0.135	0.066	0.039	

Annual Total ( )

Daily Runoff STATION 9 Jadibamba

RIVER, IN THE BASIN OF ELEVATION 3,550 m UNIT cu.m/sec-day YEAR 1967 - 1968

DATE	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	DATE
1	0.140	0.180	0.523	0.120	0.500	0.697	0.499	0.620	1.179	0.061	0.029	0.029	1
2	0.140	0.193	0.650	0.120	0.500	2.608	0.440	0.546	0.402	0.061	0.029	0.029	2
3	0.140	0.375	0.463	0.120	0.500	2.208	1.348	0.526	0.311	0.061	0.029	0.029	3
4	0.140	0.388	0.382	0.120	0.459	1.462	1.421	0.480	0.272	0.061	0.032	0.029	4
5	0.130	0.353	0.967	0.114	0.430	1.086	1.056	0.517	0.246	0.061	0.033	0.029	5
6	0.130	0.317	0.293	0.096	0.574	0.876	1.712	0.522	0.282	0.061	0.033	0.029	6
7	0.120	0.300	0.265	0.080	0.607	0.819	2.273	0.403	0.210	0.061	0.033	0.029	7
8	0.120	0.337	0.244	0.078	0.532	1.043	2.638	0.379	0.210	0.061	0.033	0.029	8
9	0.120	0.395	0.247	0.078	0.477	1.992	4.275	0.362	0.208	0.061	0.033	0.029	9
10	0.120	0.683	0.265	0.086	0.443	3.354	3.125	0.312	0.195	0.061	0.031	0.025	10
11	0.120	0.638	0.252	0.223	0.415	1.804	11.367	0.290	0.115	0.061	0.029	0.025	11
12	0.130	0.758	0.231	0.296	0.380	1.846	4.525	0.280	0.115	0.061	0.029	0.025	12
13	0.140	0.621	0.210	0.238	0.378	2.804	2.660	0.262	0.115	0.061	0.029	0.024	13
14	0.157	0.850	0.203	0.173	0.364	1.458	2.241	0.250	0.115	0.061	0.029	0.024	14
15	0.144	0.588	0.195	0.170	1.223	1.025	1.748	0.250	0.115	0.061	0.029	0.028	15
16	0.140	0.439	0.186	0.253	0.923	1.323	1.792	0.239	0.115	0.061	0.029	0.029	16
17	0.140	0.370	0.237	0.370	0.702	1.120	3.938	0.235	0.115	0.061	0.029	0.025	17
18	0.133	0.370	0.294	1.005	0.567	0.908	2.870	0.224	0.109	0.061	0.029	0.025	18
19	0.130	0.343	0.808	1.023	0.518	1.876	2.460	0.204	0.092	0.049	0.029	0.025	19
20	0.130	0.298	0.531	0.738	0.474	1.617	1.800	0.195	0.100	0.049	0.029	0.025	20
21	0.130	0.288	0.413	0.697	0.413	1.400	1.290	0.195	0.092	0.049	0.029	0.025	21
22	0.130	0.368	0.424	0.744	0.418	1.075	1.034	0.186	0.092	0.059	0.029	0.025	22
23	0.140	0.332	0.428	0.667	0.530	0.907	0.855	0.175	0.092	0.073	0.029	0.025	23
24	0.140	0.282	0.379	0.787	0.475	0.641	0.895	0.175	0.084	0.061	0.025	0.025	24
25	0.140	0.280	0.323	0.833	0.694	0.533	0.832	0.175	0.074	0.061	0.025	0.025	25
26	0.140	0.828	0.308	0.818	2.154	0.465	0.708	0.175	0.074	0.061	0.025	0.025	26
27	0.136	0.631	0.264	1.767	2.767	0.528	0.609	0.174	0.074	0.050	0.025	0.025	27
28	0.136	0.558	0.240	2.113	1.470	1.019	0.534	0.160	0.074	0.049	0.025	0.025	28
29	0.136	2.410	0.230	1.292	1.108	0.811	0.512	0.161	0.074	0.049	0.025	0.025	29
30	0.180	1.958	0.222	0.943	1.092	-	0.683	0.204	0.074	0.049	0.029	0.025	30
31	-	3.225	-	0.705	1.096	-	0.696	-	0.074	-	0.027	0.025	31
Total	4.072	19.956	10.681	16.867	23.685	39.305	62.836	8.876	5.499	1.757	0.898	0.816	
Mean	0.136	0.643	0.356	0.544	0.764	1.355	2.027	0.296	0.177	0.059	0.029	0.026	

Annual Total ( ) 195.248

Daily Runoff STATION 9 Jadibamba

RIVER, IN THE BASIN OF ELEVATION 3,550 m UNIT cu. m/sec-day YEAR 1968 - 1969

DATE	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	DATE
1	0.037	0.675	1.215	0.125	0.147	0.138	0.240	0.270	0.210	0.072	0.068	0.020	1
2	0.033	0.314	1.030	0.123	0.170	0.138	0.243	0.373	0.187	0.072	0.060	0.031	2
3	0.137	0.386	0.879	0.105	0.170	0.138	0.644	0.405	0.170	0.072	0.060	0.039	3
4	0.106	0.423	0.791	0.105	0.170	0.138	0.484	0.891	0.170	0.104	0.037	0.035	4
5	0.070	0.416	0.737	0.105	0.143	0.169	0.389	1.025	0.170	0.086	0.035	0.031	5
6	0.051	0.630	0.700	0.105	0.140	0.180	0.344	1.019	0.170	0.086	0.035	0.020	6
7	0.037	0.564	0.638	0.105	0.140	1.296	0.631	1.115	0.153	0.086	0.035	0.020	7
8	0.037	0.691	0.625	0.105	0.140	1.219	0.567	1.021	0.136	0.086	0.035	0.031	8
9	0.037	0.805	0.842	0.105	0.135	2.572	0.693	0.923	0.120	0.086	0.035	0.035	9
10	0.028	0.522	0.795	0.106	0.120	2.151	0.556	0.913	0.111	0.098	0.035	0.035	10
11	0.025	0.450	0.851	0.147	0.120	1.588	0.422	1.444	0.100	0.087	0.035	0.035	11
12	0.026	0.446	1.191	0.154	0.120	1.786	0.339	3.803	0.100	0.086	0.027	0.035	12
13	0.062	0.403	0.904	0.125	0.206	3.343	0.293	2.442	0.100	0.098	0.021	0.035	13
14	0.062	0.482	0.833	0.197	0.209	3.923	0.273	1.675	0.100	0.096	0.020	0.035	14
15	0.042	1.195	0.829	0.923	1.042	2.438	0.310	1.985	0.100	0.086	0.020	0.035	15
16	0.037	1.343	0.908	0.397	1.643	1.488	0.367	2.174	0.100	0.125	0.020	0.035	16
17	0.033	0.760	0.688	0.263	2.470	1.087	0.539	1.489	0.094	0.167	0.020	0.040	17
18	0.033	0.735	0.527	0.190	1.319	0.935	0.536	1.198	0.086	0.125	0.020	0.020	18
19	0.039	0.604	0.430	0.392	0.898	0.916	0.398	1.026	0.086	0.111	0.020	0.020	19
20	0.078	0.455	0.346	0.420	0.559	0.675	0.339	0.940	0.086	0.098	0.020	0.020	20
21	0.080	0.372	0.260	0.405	0.425	0.600	0.356	0.841	0.073	0.086	0.020	0.020	21
22	0.165	0.328	0.201	0.447	0.335	0.451	0.458	0.751	0.072	0.086	0.020	0.020	22
23	0.111	0.309	0.200	0.351	0.272	0.368	0.360	0.606	0.084	0.086	0.020	0.052	23
24	0.080	0.276	0.200	0.249	0.230	0.323	0.360	0.573	0.091	0.073	0.020	0.035	24
25	0.074	0.259	0.200	0.198	0.205	0.360	0.331	0.484	0.100	0.065	0.020	0.035	25
26	0.056	0.471	0.175	0.155	0.170	0.348	0.310	0.410	0.091	0.061	0.020	0.035	26
27	0.110	1.621	0.150	0.152	0.170	0.293	0.310	0.351	0.086	0.061	0.020	0.035	27
28	0.080	2.776	0.127	0.125	0.170	0.270	0.310	0.310	0.086	0.061	0.020	0.028	28
29	0.084	3.036	0.120	0.125	0.170	-	0.376	0.310	0.086	0.065	0.018	0.020	29
30	0.332	1.786	0.120	0.125	0.170	-	0.381	0.310	0.086	0.072	0.020	0.020	30
31	-	1.320	-	0.125	0.170	-	0.389	-	0.086	-	0.920	0.052	31
Total	2.182	24.853	17.512	6.754	12.548	29.331	12.548	31.077	3.490	2.641	0.876	0.959	
Mean	0.073	0.802	0.584	0.218	0.405	0.108	0.405	1.036	0.112	0.088	0.028	0.031	

Annual Total ( ) 144.771

Daily Runoff STATION 9 Jadibamba

RIVER, IN THE BASIN OF ELEVATION 3,550 m UNIT cu. m/sec-day YEAR 1969 - 1970

DATE	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	DATE
1	0.027	0.118	0.158	1.785	0.790	2.299	1.337	0.812	0.590	0.479	0.489	0.100	1
2	0.035	0.118	0.140	1.227	0.717	2.385	1.242	0.812	0.590	0.426	0.426	0.093	2
3	0.035	0.110	0.140	1.124	0.634	1.716	1.284	0.812	0.585	0.482	0.394	0.072	3
4	0.035	0.110	0.296	1.441	0.626	1.800	1.002	1.246	0.894	0.426	0.357	0.072	4
5	0.035	0.110	0.597	1.496	0.703	1.918	0.872	1.258	0.870	0.408	0.298	0.072	5
6	0.035	0.110	0.582	1.550	0.708	1.396	0.807	2.347	0.713	0.371	0.294	0.072	6
7	0.035	0.110	0.508	1.238	0.769	1.133	0.789	3.519	0.612	0.338	0.290	0.065	7
8	0.035	0.120	0.345	1.085	0.925	0.994	0.864	2.665	0.727	0.444	0.250	0.060	8
9	0.035	0.157	0.273	0.939	0.916	1.333	0.790	2.001	0.647	0.408	0.250	0.059	9
10	0.035	0.140	0.239	1.082	0.846	6.973	0.747	1.656	0.746	0.371	0.290	0.050	10
11	0.035	0.126	0.863	1.903	0.773	1.004	1.522	1.781	0.650	0.338	0.294	0.050	11
12	0.035	0.118	0.943	1.543	0.911	0.937	1.815	1.452	0.650	0.334	0.294	0.050	12
13	0.035	0.118	0.632	1.017	1.792	0.869	2.325	1.465	0.650	0.290	0.268	0.044	13
14	0.035	0.133	0.605	0.798	2.802	0.820	2.792	1.635	0.590	0.250	0.217	0.036	14
15	0.035	0.143	1.786	0.683	2.532	0.739	3.430	1.623	0.590	0.250	0.206	0.040	15
16	0.035	0.226	1.088	0.650	1.795	0.747	2.577	1.689	0.620	0.213	0.166	0.040	16
17	0.035	0.243	0.670	0.621	1.315	0.846	1.807	1.880	0.680	0.162	0.162	0.040	17
18	0.035	0.252	0.530	0.530	0.985	0.864	1.403	1.768	0.859	0.290	0.162	0.040	18
19	0.035	0.215	0.484	0.458	1.043	1.071	1.150	1.840	1.098	0.397	0.162	0.033	19
20	0.035	0.193	0.450	0.535	2.625	1.224	0.776	1.715	0.965	0.305	0.162	0.032	20
21	0.035	0.173	0.436	1.482	2.122	0.974	0.903	1.491	0.797	0.268	0.162	0.032	21
22	0.035	0.182	0.531	1.312	3.689	0.864	0.842	1.292	0.856	0.250	0.261	0.032	22
23	0.035	0.511	1.143	1.136	3.932	0.764	0.812	1.320	0.902	0.354	0.252	0.032	23
24	0.058	1.752	1.679	0.992	2.530	0.847	0.833	1.292	0.782	1.048	0.250	0.032	24
25	0.062	0.690	2.259	1.000	2.079	1.108	0.864	1.384	0.673	1.821	0.184	0.038	25
26	0.056	0.387	2.171	1.199	1.431	1.334	0.842	1.360	0.582	1.495	0.162	0.036	26
27	0.077	0.285	3.001	1.434	1.201	1.517	0.790	1.360	0.542	0.972	0.162	0.032	27
28	0.077	0.235	3.040	1.388	1.147	1.518	0.760	1.269	0.505	0.701	0.162	0.032	28
29	0.035	0.208	2.475	1.045	1.002	-	0.738	1.224	0.470	0.596	0.162	0.032	29
30	0.035	0.193	1.900	0.866	1.303	-	0.734	1.207	0.470	0.342	0.162	0.032	30
31	-	0.173	-	0.752	1.586	-	0.895	-	0.470	-	0.162	0.032	31
Total	1.197	7.759	29.964	34.311	46.229	39.994	38.344	47.175	21.375	14.829	7.512	1.482	
Mean	0.040	0.250	0.999	1.107	1.491	1.428	1.237	1.572	0.689	0.494	0.242	0.048	

Annual Total ( ) 290.171

Daily Runoff STATION 9 Jadikamba

RIVER, IN THE BASIN OF ELEVATION 3,550 m UNIT cu.m/sec-day YEAR 1970 - 1971

DATE	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	DATE
1	0.032	0.023	2.060	1.435	0.650	0.894	1.314	3.220	1.096	0.668	0.217	0.055	1
2	0.046	0.023	0.949	1.860	0.824	0.998	1.499	3.086	0.948	0.668	0.217	0.059	2
3	0.050	0.048	0.779	2.378	0.778	1.335	2.233	3.419	1.068	0.668	0.217	0.060	3
4	0.046	0.076	3.458	4.522	0.863	1.535	1.922	3.801	1.235	2.006	0.214	0.060	4
5	0.040	0.105	2.728	2.535	1.019	1.175	2.295	3.827	1.428	1.879	0.206	0.060	5
6	0.040	0.067	1.436	1.833	1.619	0.965	2.163	2.880	2.080	0.431	0.206	0.060	6
7	0.033	0.046	1.059	1.886	2.402	0.876	1.764	2.271	2.272	2.353	0.231	0.060	7
8	0.033	0.029	1.081	1.410	1.940	1.043	1.558	2.037	2.032	0.492	0.217	0.060	8
9	0.040	0.025	1.289	1.080	1.467	1.200	1.400	1.973	1.744	0.420	0.205	0.074	9
10	0.040	0.204	4.297	0.936	1.044	0.895	1.337	1.784	1.471	0.563	0.194	0.068	10
11	0.040	0.196	4.018	0.796	1.147	0.736	1.369	2.883	1.471	1.095	0.185	0.060	11
12	0.040	0.275	1.887	0.723	0.910	0.657	1.332	2.518	1.320	2.636	0.180	0.055	12
13	0.040	0.263	0.966	0.637	1.915	0.611	1.403	2.571	1.176	2.160	0.170	0.050	13
14	0.040	0.168	0.706	0.618	1.342	0.611	1.490	2.265	1.022	2.240	0.165	0.054	14
15	0.040	0.106	0.547	0.907	1.713	0.542	1.422	3.539	0.800	1.968	0.165	0.055	15
16	0.040	0.103	0.489	1.051	2.420	0.496	1.536	5.112	0.800	1.626	0.165	0.055	16
17	0.040	0.105	0.387	0.913	2.685	0.790	1.996	3.365	0.800	1.392	0.155	0.049	17
18	0.035	0.102	0.322	1.562	2.075	1.031	3.627	2.680	0.685	1.202	0.152	0.050	18
19	0.032	0.075	0.388	2.652	1.600	1.710	3.910	2.305	0.800	1.034	0.145	0.049	19
20	0.032	0.075	0.421	2.655	2.217	2.451	3.809	2.059	0.717	0.905	0.145	0.045	20
21	0.034	0.075	0.392	1.588	0.977	3.213	3.208	1.836	0.911	0.806	0.145	0.045	21
22	0.084	0.071	0.516	1.164	1.036	6.113	3.120	1.836	0.751	0.734	0.147	0.045	22
23	0.060	0.052	0.538	0.916	0.947	4.176	2.753	2.097	0.948	0.668	0.152	0.045	23
24	0.045	0.063	0.464	0.754	0.904	3.812	3.143	2.228	1.179	0.618	0.145	0.045	24
25	0.040	0.075	0.362	0.649	0.782	2.430	3.416	2.248	1.077	0.563	0.145	0.049	25
26	0.040	0.075	0.495	0.657	0.667	1.975	3.220	1.957	1.192	0.475	0.144	0.050	26
27	0.040	0.295	0.652	1.066	0.615	1.546	3.040	1.761	1.194	0.470	0.151	0.047	27
28	0.044	0.872	0.695	0.824	0.770	1.270	3.013	1.612	1.170	0.431	0.154	0.042	28
29	0.041	0.350	0.664	0.691	1.284	-	2.416	1.401	0.985	0.343	0.155	0.038	29
30	0.047	2.112	0.731	0.645	1.097	-	2.670	1.257	0.874	0.321	0.145	0.035	30
31	-	1.862	-	0.726	1.073	-	3.687	-	0.668	-	0.145	0.035	31
Total	1.254	8.016	34.776	42.069	39.882	45.086	73.065	75.828	35.914	31.835	5.379	1.614	
Mean	0.042	0.258	1.159	1.357	1.286	1.610	2.357	2.528	1.159	1.061	0.173	0.052	
										Annual Total ( )		394.718	

Daily Runoff STATION 9 Jadibamba

RIVER, IN THE BASIN OF ELEVATION 3,550 m UNIT cu.m/sec-day YEAR 1971 - 1972

DATE	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	DATE
1	0.040	0.030	0.639	2.359	1.067	0.401	0.604	1.166	1.204	0.475	0.136	0.095	1
2	0.040	0.030	0.433	3.671	1.166	0.382	0.532	1.050	1.068	0.358	0.131	0.095	2
3	0.040	0.032	0.326	3.612	1.125	0.375	0.545	0.959	0.957	0.294	0.125	0.095	3
4	0.035	0.074	0.287	2.581	1.314	0.354	0.609	0.888	0.872	0.270	0.125	0.095	4
5	0.035	0.260	0.255	1.771	1.194	0.324	1.180	0.869	0.806	0.252	0.125	0.095	5
6	0.035	0.403	0.290	1.108	1.586	0.309	1.046	0.818	0.771	0.252	0.125	0.098	6
7	0.038	0.532	0.262	0.798	1.827	0.309	1.057	0.790	0.745	0.252	0.120	0.100	7
8	0.047	0.536	0.161	0.679	2.765	0.332	1.205	0.755	1.495	0.246	0.114	0.095	8
9	0.048	0.635	0.940	0.521	2.221	0.581	4.719	0.860	1.153	0.222	0.125	0.094	9
10	0.050	0.422	0.656	0.422	1.782	0.731	2.281	2.470	0.979	0.204	0.266	0.089	10
11	0.050	0.305	0.561	0.394	1.512	0.433	1.430	4.125	1.061	0.198	0.254	0.085	11
12	0.071	0.483	0.502	0.290	1.362	0.326	1.198	2.969	1.061	0.180	0.195	0.083	12
13	0.080	0.571	0.460	0.262	1.330	0.287	0.916	2.705	0.993	0.179	0.168	0.080	13
14	0.062	0.552	0.399	0.227	1.083	0.235	0.844	3.670	0.953	0.169	0.155	0.080	14
15	0.060	0.605	0.333	0.207	0.764	0.202	1.498	3.177	0.875	0.169	0.142	0.080	15
16	0.055	0.422	0.397	0.180	0.550	0.178	3.048	2.081	0.821	0.169	0.147	0.078	16
17	0.054	0.295	0.512	0.174	0.422	0.150	3.014	1.708	0.771	0.169	0.147	0.075	17
18	0.050	0.245	0.349	0.156	0.349	0.132	2.436	1.810	0.745	0.169	0.136	0.075	18
19	0.045	0.270	0.285	0.264	0.323	0.126	1.783	1.526	0.698	0.177	0.136	0.075	19
20	0.045	0.242	0.729	0.341	0.312	0.108	3.937	1.507	0.672	0.177	0.136	0.075	20
21	0.042	0.227	0.867	0.567	0.307	0.108	3.845	1.335	0.640	0.166	0.126	0.075	21
22	0.040	0.262	1.299	0.395	0.593	0.106	2.337	1.474	0.672	0.158	0.125	0.075	22
23	0.040	0.299	1.557	0.624	0.752	0.084	1.658	1.687	1.040	0.158	0.125	0.075	23
24	0.040	0.277	1.387	0.661	0.673	0.084	1.324	1.757	1.134	0.155	0.125	0.075	24
25	0.040	0.357	1.557	1.928	0.582	0.092	1.184	1.516	1.115	0.147	0.125	0.075	25
26	0.045	0.697	1.289	1.738	0.468	0.124	1.123	1.708	0.968	0.147	0.125	0.075	26
27	0.050	0.628	1.591	0.985	0.376	0.128	1.008	1.605	0.882	0.147	0.122	0.075	27
28	0.050	0.533	2.727	0.959	0.320	0.140	1.000	1.876	0.818	0.147	0.114	0.070	28
29	0.050	0.832	1.940	2.268	0.372	0.234	1.175	2.242	0.800	0.147	0.114	0.070	29
30	0.053	0.908	1.771	1.393	0.364	-	1.230	1.771	0.771	0.144	0.114	0.075	30
31	-	0.838	-	1.225	0.317	-	1.115	-	0.745	-	0.114	0.075	31
Total	1.430	12.802	24.761	32.660	29.177	7.375	50.881	52.874	28.285	6.093	4.342	2.552	
Mean	0.048	0.413	0.825	1.053	0.941	0.254	1.641	1.762	0.912	0.203	0.140	0.082	
										Annual Total ( )		253.236	

Daily Runoff STATION 9 Jadibamba

RIVER, IN THE BASIN OF ELEVATION 3,550 m UNIT cu.m/sec-day YEAR 1972 - 1973

DATE	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	DATE
1	0.074	0.183	0.126	1.332	0.477	0.819	0.956	2.031	0.648	0.247	0.161	0.778	1
2	0.082	0.248	0.096	2.949	0.458	0.722	0.994	5.683	0.675	0.222	0.161	0.886	2
3	0.106	0.401	0.093	1.896	0.458	0.748	1.075	5.010	0.639	0.221	0.161	0.622	3
4	0.092	1.009	0.093	1.295	0.458	0.673	1.025	3.033	0.663	0.207	0.173	0.493	4
5	0.077	1.078	0.093	1.063	0.423	0.974	0.912	2.723	0.865	0.197	0.193	0.422	5
6	0.074	0.947	0.126	0.863	0.385	1.137	0.837	3.076	0.712	0.187	0.217	0.352	6
7	0.074	0.774	0.129	0.708	0.531	1.906	1.554	3.929	0.648	0.176	0.197	0.289	7
8	0.074	0.644	0.151	0.742	0.638	1.839	1.904	3.788	0.611	0.167	0.187	0.249	8
9	0.069	0.607	0.181	1.393	0.841	1.675	1.662	2.935	0.547	0.161	0.167	0.235	9
10	0.062	0.537	0.696	2.113	1.120	1.273	1.388	2.478	0.515	0.161	0.157	0.212	10
11	0.062	0.475	1.239	3.149	1.019	1.043	1.144	2.769	0.501	0.157	0.140	0.187	11
12	0.062	0.454	2.058	2.404	1.070	0.837	1.000	2.489	1.488	0.150	0.130	0.185	12
13	0.062	0.515	1.451	1.812	1.164	0.669	2.356	3.227	0.946	0.147	0.116	0.185	13
14	0.071	0.362	1.354	1.763	1.719	0.604	2.810	4.021	0.765	0.146	0.112	0.174	14
15	0.104	0.344	1.455	1.316	2.097	0.523	1.834	2.724	0.689	0.146	0.101	0.164	15
16	0.096	0.475	1.290	1.048	1.447	0.485	1.456	2.875	0.579	0.135	0.101	0.154	16
17	0.173	0.429	0.960	1.063	1.084	0.458	1.387	3.726	0.501	0.131	0.101	0.135	17
18	0.227	0.353	0.805	1.721	0.823	0.458	1.225	3.240	0.437	0.131	0.101	0.135	18
19	0.662	0.337	0.773	1.420	1.321	0.458	1.306	2.227	0.391	0.131	0.101	0.135	19
20	0.593	0.337	0.810	1.041	3.927	0.458	1.219	1.719	0.327	0.131	0.100	0.135	20
21	0.527	0.325	0.768	0.767	1.995	0.416	1.037	1.639	0.295	0.131	0.086	0.135	21
22	0.478	0.283	1.930	0.634	1.984	1.720	0.937	1.381	0.295	0.125	0.082	0.135	22
23	0.436	0.274	1.226	0.573	2.966	4.196	0.994	1.281	0.281	0.116	0.071	0.141	23
24	0.309	0.246	1.033	0.550	2.714	2.577	1.094	1.081	0.227	0.116	0.071	0.160	24
25	0.253	0.225	1.033	0.515	1.702	1.492	0.912	0.937	0.210	0.145	0.071	0.160	25
26	0.222	0.209	1.046	0.504	1.215	1.490	1.025	0.899	0.210	0.192	0.085	0.145	26
27	0.190	0.197	0.913	0.538	0.954	1.324	4.522	1.401	0.197	0.221	0.090	0.135	27
28	0.169	0.185	0.966	0.559	1.606	1.034	2.649	1.019	0.192	0.177	0.101	0.124	28
29	0.169	0.169	1.251	0.550	1.403	-	2.365	0.869	0.192	0.162	0.156	0.181	29
30	0.169	0.143	1.008	0.531	1.280	-	2.236	0.856	0.246	0.161	0.167	0.137	30
31	-	0.141	-	0.504	1.019	-	1.771	-	0.318	-	0.259	0.133	31
Total	5.818	12.906	25.153	37.302	40.298	32.013	47.586	75.046	15.810	4.897	4.116	7.713	
Mean	0.193	0.416	0.838	1.203	1.300	1.143	1.535	2.501	0.510	0.163	0.132	0.249	
										Annual Total ( )		308.658	

Daily Runoff STATION 9 Jadibamba

RIVER, IN THE BASIN OF ELEVATION 3,550 m UNIT cu.m/sec-day YEAR 1973 - 1974

DATE	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	DATE
1	0.362	0.310											1
2	0.243	0.310											2
3	0.231	0.289											3
4	0.295	0.260											4
5	0.224	0.260											5
6	0.187	0.285											6
7	0.191	0.331											7
8	0.210	0.258											8
9	0.191	0.354											9
10	0.185	0.372											10
11	0.185	0.335											11
12	0.174	0.310											12
13	0.160	0.249											13
14	0.160	0.237											14
15	0.154	0.245											15
16	0.212	0.241											16
17	0.364	0.327											17
18	0.887	0.672											18
19	0.585	1.462											19
20	1.372	1.187											20
21	2.290	0.748											21
22	1.761	0.627											22
23	1.012	0.885											23
24	0.753	0.705											24
25	0.677	0.518											25
26	0.631	0.422											26
27	0.622	0.441											27
28	0.560	0.706											28
29	0.443	0.899											29
30	0.335	0.677											30
31	-	1.160											31
Total	15.659	16.082											
Mean	0.521	0.519											
										Annual Total ( )			

Monthly Precipitation STATION (11) Gelendin CATCHMENT AREA ____ sq.km

RIVER, IN THE BASIN OF ____ ELEVATION 2,620 m UNIT mm S 6°52' W 78°09'

YEAR	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	ANNUAL
1961	-	-	-	-	-	-	-	-	-	-	-	-	-
1962	-	-	-	-	-	-	-	-	-	-	-	-	-
1963	-	-	-	-	-	-	-	-	-	-	-	-	-
1964				109.7	28.8	-	9.8	95.4	55.0	66.8	148.5	53.9	
1965	56.1	76.4	217.5	116.6	14.5	0.6	8.4	4.7	84.3	97.9	142.4	103.9	923.3
1966	163.5	62.7	33.3	60.6	55.1	21.1	0.0	6.4	5.8	138.4	100.6	43.1	690.6
1967	47.7	103.0	96.5	107.3	41.4	12.5	30.7	2.4	13.5	124.3	103.4	97.5	780.2
1968	98.3	144.0	135.4	38.5	17.6	6.5	4.2	3.3	158.8	76.4	78.4	84.0	845.4
1969	15.3	126.3	134.9	185.3	4.7	86.8	1.6	7.5	56.6	213.3	308.6	197.9	1,338.8
1970	147.6	51.1	113.6	96.7	42.4	20.4	11.0	2.8	18.3	93.1	99.3	126.0	822.3
1971	125.1	120.2	144.1	116.6	44.3	16.4	5.1	16.8	17.9	131.3	171.4	131.5	1,040.7
1972	41.8	63.7	196.3	184.1	58.4	0.0	0.0	21.4	66.2	31.8	181.4	89.3	934.4
1973	75.5	49.1	104.7	163.1	28.5	8.7	29.0	6.4					

Monthly Precipitation STATION (12) Hda. Negritos CATCHMENT AREA ____ sq.km

RIVER, IN THE BASIN OF ____ ELEVATION 3,500 m UNIT mm S 6°54' W 78°33'

YEAR	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	ANNUAL
1961	-	-	-	-	-	-	7.4	0.7	30.6	161.0	66.8	133.3	
1962	112.5	177.3	193.7	115.5	-	34.0	4.0	0.6	2.4	39.5	80.0	56.5	
1963	77.5	101.5	180.0	123.5	55.0	9.5	13.0	24.5	18.5	136.0	157.5	149.6	1,046.1
1964	109.0	71.0	82.0	92.5	92.0	40.0	35.0	22.5	32.8	115.0	141.0	42.0	874.8
1965	41.3	77.5	150.4	138.4	78.2	-	-	-	-	-	114.0	95.5	
1966	97.6	60.3	86.0	159.6	74.1	6.5	21.1	21.8	47.1	223.0	67.1	35.4	899.6
1967	135.7	156.3	193.6	90.9	35.6	27.1	50.5	39.2	16.3	199.6	73.8	100.3	1,118.9
1968	54.8	108.4	165.3	54.9	64.5	9.0	8.5	21.2	122.9	126.5	49.5	44.8	830.3
1969	84.7	123.2	192.1	21.1	3.7	37.2	3.9	6.6	37.0	136.5	161.9	114.6	922.5
1970	140.2	64.2	88.5	109.6	67.2	61.8	7.3	27.3	32.0	147.5	96.9	51.8	894.3
1971	219.1	120.7	268.6	163.4	118.1	69.5	7.3	7.3	21.7	198.0	135.1	105.6	1,434.4
1972	69.6	119.7	206.3	245.6	81.4	15.1	58.0	17.5	62.3	53.3	77.7	51.1	1,057.6
1973	118.9	87.0	116.2	248.3	82.7	68.0	59.2	-	213.6	184.3	-	-	

Monthly Precipitation STATION (13) La Llica CATCHMENT AREA ____ sq.km

RIVER, IN THE BASIN OF ____ ELEVATION 2,800 m UNIT mm S 6°43' W 78°31'

YEAR	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	ANNUAL
1961													
1962													
1963	106.3	71.2	120.9	103.4	44.8	12.5	12.0	18.8	9.6	147.4	109.5	103.4	859.8
1964	83.4	71.7	85.6	88.7	28.3	29.0	46.5	74.7	49.8	78.2	99.8	81.4	817.1
1965	39.2	79.6	158.4	108.0	24.7	3.0	18.1	11.9	94.4	173.7	119.0	117.7	947.7
1966	46.4	72.6	55.5	58.7	55.0	20.0	4.8	10.9	42.6	229.0	111.4	31.2	738.1
1967	137.6	145.7	124.1	85.6	24.4	15.0	37.7	24.7	31.1	152.1	61.1	80.2	919.3
1968	92.9	89.5	125.5	63.4	32.5	16.9	16.4	43.3	113.8	103.7	83.2	36.8	817.9
1969	51.9	106.0	93.5	102.3	13.4	62.5	2.7	10.0	58.1	108.5	136.9	64.8	810.6
1970	89.0	46.7	65.5	139.9	65.4	45.6	18.2	13.8	42.5	117.3	160.2	72.3	876.4
1971	67.4	115.7	257.5	95.9	90.4	29.1	13.2	10.0	25.1	-	129.7	88.0	
1972	70.2	91.3	166.7	132.5	67.0	7.2	13.2	11.5	92.3	47.6	119.4	124.1	943.0
1973	98.1	63.3	112.2	131.1	30.5	46.4	45.9	35.7	142.5	206.9	-	-	

Monthly Precipitation STATION (14) Hualgayoc CATCHMENT AREA ____ sq.km

RIVER, IN THE BASIN OF ____ ELEVATION 3,510 m UNIT mm S 6°45' W 78°37'

YEAR	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	ANNUAL
1961	-	-	-	-	-	-	26.1	13.2	44.7	150.0	86.3	-	
1962	178.1	203.0	189.1	245.2	38.2	22.0	2.8	3.4	45.7	76.5	113.2	90.9	1,208.1
1963	173.0	109.0	230.6	146.8	56.2	19.0	30.8	22.1	33.4	166.4	143.7	214.5	1,345.5
1964	113.1	163.2	153.2	144.8	82.6	52.6	57.5	101.7	78.7	103.0	120.5	126.0	1,296.9
1965	84.3	162.3	252.0	134.1	47.6	10.5	68.6	30.6	-	3.6	158.0	156.6	
1966	126.9	142.5	65.9	140.4	87.1	39.2	-	-	95.1	112.1	67.9	44.1	
1967	200.1	199.1	207.2	124.3	64.5	19.1	64.5	22.6	41.9	191.4	74.5	120.1	1,329.3
1968	115.6	131.6	178.4	84.8	45.7	46.3	28.1	101.6	197.7	201.8	80.0	99.6	1,311.2
1969	128.9	178.0	144.2	160.4	27.3	73.9	4.4	31.4	55.8	142.0	178.7	190.2	1,315.2
1970	146.0	150.1	110.4	180.7	-	73.6	34.3	25.1	88.1	241.1	232.4	183.9	
1971	139.5	193.9	346.1	123.9	105.5	70.2	26.5	33.8	56.0	227.1	182.8	140.3	1,645.6
1972	92.7	105.8	264.6	174.4	126.5	22.3	20.2	34.2	112.7	121.9	174.8	126.8	1,376.9
1973	177.7	125.4	192.1	238.7	38.9	92.1	85.3	59.8	147.8	-	-	-	

Monthly Precipitation STATION (15) Hda. Jaucan CATCHMENT AREA sq.km

RIVER, IN THE BASIN OF ELEVATION 2,650 m UNIT mm S 6° 45' W 78° 32'

YEAR	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	ANNUAL
1961													
1962													
1963	-	-	-	-	-	-	-	-	-	109.7	90.8	79.3	
1964	47.1	85.7	73.7	63.8	33.0	34.5	4.5	43.1	56.0	80.5	52.8	69.0	643.7
1965	14.9	71.9	186.2	87.9	33.3	45.2	24.3	5.2	88.4	62.0	49.0	24.0	692.3
1966	67.3	78.5	25.4	26.0	31.7	14.5	6.8	2.0	2.5	42.3	68.0	8.0	373.0
1967	58.5	90.0	83.9	68.4	22.6	2.8	27.4	5.4	42.9	122.4	41.3	56.1	621.7
1968	60.1	98.9	100.2	59.5	29.0	22.0	18.1	23.3	94.2	90.0	31.8	30.9	658.0
1969	24.1	47.0	83.2	81.2	9.0	21.5	0.0	0.7	1.5	52.4	140.9	55.5	517.0
1970	80.4	33.6	59.3	103.3	46.7	38.1	52.4	16.7	46.7	120.2	170.1	105.7	873.2
1971	70.1	96.8	239.8	87.3	61.7	19.8	72.7	3.6	36.0	147.3	83.8	64.8	983.7
1972	52.7	84.7	122.6	127.0	46.9	6.0	7.7	9.2	59.5	60.3	102.5	59.0	738.1
1973	85.6	63.9	101.5	121.6	29.0	24.0	52.1	28.0	109.1	106.4	59.7	-	

Monthly Precipitation STATION (16) Bambamarca CATCHMENT AREA sq.km

RIVER, IN THE BASIN OF ELEVATION 2,500 m UNIT mm S 6° 40' W 78° 32'

YEAR	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	ANNUAL
1961	-	-	-	-	-	-	2.5	14.8	11.5	90.1	26.2	96.0	
1962	80.4	88.9	79.5	81.7	14.7	16.5	0.8	3.7	6.0	-	40.9	42.5	
1963	118.1	91.9	109.9	103.2	20.8	5.7	16.6	7.5	1.7	-	64.6	119.4	
1964	38.6	59.6	48.2	60.4	17.2	5.1	18.2	60.8	49.4	24.9	70.6	74.0	527.0
1965	65.7	47.2	103.2	611.5	15.9	8.1	23.3	-	58.4	66.6	112.0	49.4	
1966	51.1	41.6	35.2	35.8	38.5	15.9	1.2	-	-	213.6	61.8	11.3	
1967	86.0	165.0	70.1	64.8	34.1	2.7	51.0	6.7	37.6	117.5	44.1	68.6	748.2
1968	41.2	94.2	96.8	85.0	34.5	9.5	11.3	23.3	113.6	86.9	32.8	20.5	649.6
1969	59.2	85.6	66.7	104.0	20.6	41.7	6.5	13.2	66.2	93.0	119.1	62.6	738.4
1970	62.3	42.2	48.9	65.8	48.8	24.6	33.6	13.6	29.6	128.6	145.1	84.9	728.0
1971	70.3	63.6	195.5	86.0	62.5	43.7	25.4	11.0	29.5	123.4	78.6	63.1	852.6
1972	38.4	66.7	141.5	-	59.1	12.6	4.9	10.1	80.8	67.7	105.6	50.3	
1973	68.2	68.2	86.1	126.3	18.7	28.6	48.7	-	87.0	78.4	-	-	

Monthly Precipitation STATION (17) San Juan de Lacamaca CATCHMENT AREA ____ sq.km

RIVER, IN THE BASIN OF ____ ELEVATION 2,700 m UNIT mm S 6°38' W 78°32'

YEAR	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	ANNUAL
1961	-	-	-	-	-	-	5.3	11.9	12.2	90.7	92.1	150.1	
1962	106.7	133.6	141.7	138.7	27.8	18.1	7.8	3.3	9.3	53.8	46.8	50.9	738.5
1963	97.0	76.2	201.7	99.9	23.5	15.2	24.7	11.1	15.8	111.4	117.5	239.4	1,033.4
1964	83.5	70.6	82.5	65.0	24.3	20.9	35.2	64.1	49.2	27.0	139.4	78.2	739.9
1965	38.2	69.0	164.7	72.0	31.7	2.1	37.1	8.0	64.9	100.0	130.7	51.7	770.1
1966	78.6	58.1	100.8	48.9	63.4	14.4	5.0	7.8	38.0	202.0	75.6	22.7	715.3
1967	122.8	189.7	125.8	80.1	72.1	8.4	66.3	9.7	19.6	148.3	66.8	59.1	968.7
1968	46.4	67.0	117.9	81.5	46.8	16.3	26.6	20.0	124.1	98.7	82.2	40.5	768.0
1969	87.4	75.8	97.8	115.2	16.8	59.8	6.5	27.4	72.0	97.3	178.9	101.4	936.3
1970	88.7	69.8	89.1	88.3	88.9	28.8	35.4	14.3	44.5	123.5	150.6	120.5	942.4
1971	77.8	131.9	266.9	119.7	70.5	80.3	44.1	9.9	33.8	-	103.3	98.7	
1972	60.9	102.6	200.5	144.4	106.5	18.0	8.2	27.9	59.7	-	158.7	71.9	
1973	91.3	86.2	92.5	170.6	19.0	-	-	-	-	-	-	-	

Monthly Precipitation STATION (18) Qda. Shugar CATCHMENT AREA ____ sq.km

RIVER, IN THE BASIN OF ____ ELEVATION 3,030 m UNIT mm S 6°42' W 78°26'

YEAR	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	ANNUAL
1961	-	-	-	-	-	-	42.8	9.4	21.9	107.3	108.1	143.2	
1962	188.8	209.5	171.4	144.0	54.5	40.0	6.6	2.4	16.2	67.0	77.3	71.9	1,049.6
1963	107.8	96.4	167.5	167.6	50.5	24.6	31.9	9.2	10.0	146.6	127.4	150.4	1,089.9
1964	89.6	127.0	138.2	99.5	46.1	18.0	69.0	85.1	69.1	85.9	150.9	79.7	1,058.1
1965	50.3	123.0	210.4	105.2	33.8	3.7	28.9	8.7	121.9	115.8	138.3	128.6	1,068.6
1966	78.2	88.8	65.0	55.8	62.1	34.8	1.8	17.0	47.5	213.7	109.5	28.2	802.4
1967	140.9	135.7	96.7	91.3	42.8	16.0	43.3	9.1	62.6	154.7	64.0	81.9	939.0
1968	70.1	96.8	138.2	65.7	46.7	38.1	41.1	11.8	120.4	153.0	61.6	95.0	938.5
1969	67.1	94.7	151.9	110.3	31.4	53.5	3.8	11.9	57.1	107.9	192.2	102.2	984.0
1970	120.7	46.9	114.2	125.9	76.2	45.4	46.4	11.5	75.3	208.0	212.9	140.9	1,224.3
1971	117.7	101.6	288.0	114.5	106.7	66.5	17.1	8.0	43.5	188.3	129.3	118.3	1,299.5
1972	60.4	119.5	202.4	212.2	93.4	1.2	17.2	41.8	77.2	85.5	130.6	107.1	1,148.5
1973	99.4	80.1	197.9	146.3	46.2	57.3	53.2	44.3	-	-	-	-	

Monthly Precipitation STATION (19) Conchan CATCHMENT AREA ____ sq.km

RIVER, IN THE BASIN OF ____ ELEVATION 2,400 m UNIT ____ S 6°26' W 78°39'

YEAR	Jan.	Feb.	Mar.	Apr.	June	July	Aug.	Sep.	Oct.	Nov.	Dec.		ANNUAL
1961													
1962													
1963													
1964													
1965	241.0	107.4	97.0	94.4	50.9	5.7	0.9	13.5	56.0	198.6	305.8	93.2	
1966	73.0	37.4	96.0	84.8	64.1	26.5	5.2	11.9	50.7	198.1	131.2	55.8	
1967	111.7	168.7	153.0	33.1	50.0	11.5	47.3	12.0	44.9	184.7	67.0	63.1	
1968	83.7	83.4	85.4	68.2	0.0	0.8	17.3	50.5	225.1	198.1	78.0	17.1	
1969	36.1	22.8	107.5	162.3	19.0	30.9	10.0	28.4	73.8	149.2	164.0	117.3	
1970	83.6	69.0	45.8	52.4	51.9	29.9	22.2	5.2	9.0	17.1	20.6	13.5	
1971	91.3	59.0	241.1	130.5	139.0	55.5	55.0	7.6	73.3	240.1	64.0	116.0	
1972	136.9	109.7	242.3	241.5	81.4	28.0	23.1	26.6	65.1	46.3	216.9	74.5	
1973	113.3	49.7	91.2	187.6	26.3	47.3	35.8	38.3	-	-	-	-	

Monthly Precipitation STATION (20) Tacabamba CATCHMENT AREA ____ sq.km

RIVER, IN THE BASIN OF ____ ELEVATION 1,200 m UNIT ____ S 6°26' W 78°37'

YEAR	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	ANNUAL
1961													
1962													
1963	-	-	-	-	-	-	-	-	-	154.1	73.4	87.3	
1964	78.8	36.9	69.9	107.1	54.8	22.0	21.3	80.7	55.1	78.0	165.7	-	
1965	76.5	107.2	83.4	120.5	44.3	10.3	17.3	20.9	117.0	53.1	21.8	162.0	
1966	62.0	43.0	104.0	79.0	64.0	24.2	9.4	14.2	56.6	267.9	82.8	62.8	
1967	221.2	127.0	161.0	96.7	68.5	19.0	29.4	11.0	59.8	202.4	52.6	97.5	
1968	150.1	138.6	94.8	52.8	42.6	11.0	60.3	104.0	225.5	182.3	27.7	20.1	
1969	76.3	206.7	199.7	168.4	39.4	25.7	12.4	36.9	145.0	206.9	234.6	204.2	
1970	90.2	68.5	164.6	214.3	137.8	57.4	56.9	18.0	60.1	148.5	108.9	136.4	
1971	98.1	133.6	351.5	185.9	119.2	97.1	43.1	17.5	70.6	225.8	95.0	69.5	
1972	80.0	112.1	227.9	251.4	37.3	10.3	7.0	34.3	75.7	62.1	154.5	62.5	
1973	85.4	55.4	88.3	242.7	56.0	56.1	123.9	47.3	126.9	116.9	98.9	105.9	
Mean													

Monthly Precipitation STATION (21) Cutervo CATCHMENT AREA ____ sq.km

RIVER, IN THE BASIN OF ____ ELEVATION 2,450 m UNIT ____ S 6°23' W 78°52'

YEAR	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	ANNUAL
1961	-	-											
1962													
1963	-	-	-	-	-	-	-	-	-	130.5	84.0	102.0	
1964	82.0	26.0	43.1	155.0	53.0	-	23.0	45.0	27.5	37.6	111.0	52.0	
1965	64.0	42.5	95.5	141.5	21.0	15.0	57.5	13.0	79.5	97.5	170.5	88.5	
1966	62.0	52.0	68.0	66.0	64.1	-	27.5	22.5	86.0	181.0	-	-	
1967	114.0	40.5	176.1	53.0	46.0	37.5	33.5	8.0	17.2	119.0	44.2	83.5	
1968	42.5	56.5	98.0	72.0	24.5	11.5	9.0	45.0	149.5	117.0	73.0	59.5	
1969	60.0	135.0	95.5	220.0	9.0	3.6	9.5	22.0	57.0	61.5	172.0	111.0	
1970	57.2	80.5	104.5	113.5	97.0	41.0	11.0	14.5	18.0	139.1	49.2	130.5	
1971	150.5	162.5	337.5	65.3	158.0	94.0	36.5	20.5	42.5	193.0	119.5	113.0	
1972	85.5	84.0	179.0	130.2	79.5	63.0	23.0	34.5	68.4	27.8	102.0	65.0	
1973	63.0	129.5	96.5	228.5	56.0	68.0	34.8	57.5	-	85.5	68.5	-	
Mean													

Monthly Precipitation STATION (22) Cajamarca CATCHMENT AREA ____ sq.km

RIVER, IN THE BASIN OF ____ ELEVATION 2,621 m UNIT mm S 7°08' W 78°28'

YEAR	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	ANNUAL
1958	-	-	-	-	-	0.0	1.0	2.0	0.0	52.0	6.0	82.0	
1959	56.0	69.0	235.5	212.0	16.0	25.0	4.0	7.0	12.0	75.0	40.0	173.0	924.5
1960	50.0	141.0	110.0	77.0	72.0	1.0	2.0	27.1	26.8	35.5	143.4	52.2	738.0
1961	145.5	65.0	98.0	113.0	21.9	3.0	0.0	0.0	8.0	90.0	78.2	120.7	743.3
1962	137.1	144.0	168.0	101.0	23.3	2.0	0.0	1.0	12.0	22.5	44.7	34.2	689.8
1963	114.5	113.5	179.0	123.3	11.0	16.0	1.0	4.5	23.0	64.0	90.2	105.5	845.5
1964	86.0	85.0	104.5	119.3	42.5	4.0	19.0	44.2	35.0	121.3	89.7	58.1	808.6
1965	67.5	64.5	144.1	92.3	27.0	4.0	0.0	0.0	41.0	103.5	90.0	93.5	727.4
1966	88.0	76.0	66.2	69.9	53.0	0.0	0.0	3.0	3.0	112.6	94.7	21.8	588.2
1967	165.5	182.6	145.9	49.0	53.2	8.0	25.6	5.8	25.8	126.1	20.0	39.8	847.3
1968	48.5	45.0	42.6	15.0	1.0	0.0	4.0	24.0	65.2	72.3	53.0	70.6	441.2
1969	32.9	75.7	59.4	96.2	3.0	17.0	1.0	13.0	15.0	92.6	141.2	176.3	723.3
1970	72.5	4.0	16.3	81.6	59.9	14.3	2.0	8.2	37.2	107.1	66.7	49.1	518.9
1971	76.9	108.2	136.2	130.9	40.1	2.5	31.3	13.7	65.9	120.2	67.1	131.4	924.4
1972	37.7	60.2	104.9	115.9	39.8	5.0	8.0	22.2	52.8	25.2	71.1	77.5	620.3
1973	76.8	88.9	93.8	142.3	47.3	19.4	4.2	0.0	90.7	59.6	112.8	-	

Monthly Precipitation STATION (23) Matara CATCHMENT AREA sq.km

RIVER IN THE BASIN OF ELEVATION 2,624 m UNIT mm S 7° 15' W 78° 16'

YEAR	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	ANNUAL
1961													
1962													
1963	-	-	-	-	-	-	-	-	38.3	128.8	92.2	180.0	
1964	114.4	65.4	131.4	115.7	14.0	5.2	71.4	33.2	9.7	91.1	74.0	29.0	754.5
1965	30.9	73.4	161.7	107.8	27.8	1.5	16.5	-	75.3	100.7	52.9	122.9	
1966	119.5	39.4	72.5	34.4	20.9	3.1	16.0	0.5	11.5	141.2	39.7	50.3	549.0
1967	120.6	135.7	87.5	54.8	18.3	-	13.1	-	44.2	126.7	28.2	44.4	
1968	51.2	118.7	75.5	80.7	22.0	-	-	18.1	30.9	97.0	19.4	115.1	
1969	32.5	91.5	82.6	103.0	0.0	26.4	0.0	0.0	34.0	86.1	116.9	108.2	681.2
1970	106.9	50.6	51.0	89.0	42.5	21.4	0.4	5.5	35.3	104.2	69.4	114.8	691.0
1971	69.9	121.3	257.2	146.7	29.2	9.0	5.8	4.2	28.6	82.9	81.5	78.7	915.0
1972	68.5	62.7	175.7	95.1	39.5	7.7	0.0	0.0	25.7	19.5	64.6	48.5	607.5
1973	130.2	135.6	100.5	175.3	40.1	36.8	10.2	15.3	72.4	77.6	83.1	109.1	986.2
1974	98.8												

Monthly Precipitation STATION (24) San Marcos CATCHMENT AREA sq.km

RIVER IN THE BASIN OF ELEVATION 2,254 m UNIT mm S 7° 20' W 78° 11'

YEAR	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	ANNUAL
1961													
1962													
1963													
1964													
1965	0.0	44.0	469.3	103.0	0.0	-	-	0.0	489.5	71.2	78.5	90.0	
1966	106.5	33.0	102.4	7.0	12.2	1.8	9.2	0.0	0.0	108.1	57.6	38.2	476.0
1967	82.3	141.5	102.1	42.4	6.6	5.7	19.6	0.4	13.6	108.6	22.3	38.8	583.9
1968	33.3	115.6	96.6	36.5	17.9	0.0	0.8	9.1	54.0	98.4	20.6	65.1	547.9
1969	37.9	111.6	85.7	83.5	0.0	14.8	0.0	1.8	30.2	68.8	136.5	106.9	677.7
1970	23.2	37.2	82.8	88.9	27.4	18.9	3.4	3.6	29.9	119.2	105.1	79.3	618.9
1971	75.2	167.1	208.9	98.8	25.3	17.2	7.2	0.8	9.2	72.0	69.3	82.5	833.5
1972	56.9	63.0	218.2	182.8	17.6	6.9	0.0	24.7	32.7	28.4	54.6	138.4	824.2
1973	169.9	78.5	136.7	213.0	35.6	23.6	5.8	5.6	-	108.8	-	-	

Monthly Precipitation STATION (25) Cachachi CATCHMENT AREA ... sq.km

RIVER, IN THE BASIN OF ... ELEVATION 2,400 m UNIT mm S 7° 27' W 78° 16'

YEAR	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	ANNUAL
1961													
1962													
1963	73.0	194.0	498.6	323.9	-	-	-	-	-	-	-	-	
1964	-	-	-	-	-	41.0	23.6	22.9	33.3	126.2	75.0	36.4	
1965	65.8	-	-	-	-	-	-	11.7	64.6	271.0	160.8	116.8	
1966	135.8	181.3	208.5	221.9	26.7	4.2	17.7	13.8	12.3	172.1	100.7	6.2	1,101.2
1967	111.7	-	-	12.2	31.3	0.0	8.1	18.2	8.0	145.4	97.2	30.2	
1968	27.6	28.6	57.7	43.1	7.3	4.0	5.2	14.2	8.3	85.8	4.0	37.5	323.3
1969	15.2	51.7	53.7	1,418.9	399.2	238.2	0.0	0.0	13.9	182.2	255.6	160.0	2 788.6
1970	98.0	9.3	61.5	62.5	264.7	39.2	3.9	5.6	43.5	164.1	137.2	-	
1971	103.2	40.5	343.3	255.2	23.0	1.8	20.3	18.0	7.3	36.1	33.8	207.2	1,089.7
1972	0.1	28.4	312.9	174.5	26.5	1.2	0.0	4.2	45.8	152.6	66.9	113.0	926.1
1973	341.7	95.1	123.2	319.8	35.3	0.0	46.2	0.0	-	162.7	116.0	-	
1974	107.1	-	-	-	-	-	-	-	-	-	-	-	

Monthly Precipitation STATION (26) Hda. Jocos CATCHMENT AREA ... sq.km

RIVER, IN THE BASIN OF ... ELEVATION 2,630 m UNIT mm S 7° 31' W 78° 00'

YEAR	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	ANNUAL
1961													
1962													
1963													
1964	-	-	-	-	-	-	2.8	45.4	49.2	118.2	85.0	83.8	
1965	51.0	132.4	91.5	95.9	5.5	0.8	7.6	5.9	90.6	120.1	85.1	169.7	856.1
1966	134.4	96.2	36.8	35.0	50.2	5.8	8.7	0.0	0.7	169.4	105.5	34.9	677.6
1967	101.8	165.1	129.9	100.6	28.2	0.9	46.3	0.0	21.1	143.8	12.1	90.1	839.9
1968	57.1	163.6	109.7	51.6	20.0	0.2	4.9	7.6	71.8	129.7	46.0	167.5	829.7
1969	40.9	124.2	192.7	222.8	0.0	32.2	0.2	7.8	20.4	118.8	171.1	173.9	1,105.0
1970	105.6	61.9	74.5	100.2	66.8	23.4	1.3	7.0	30.5	115.8	180.0	134.1	901.1
1971	161.5	161.8	298.5	133.8	37.8	63.1	18.6	0.5	27.0	137.5	119.0	97.4	1,256.5
1972	77.4	99.7	292.0	230.0	70.0	7.1	0.2	8.5	53.6	27.4	83.2	117.8	1,066.9
1973	208.4	104.4	160.8	294.8	31.3	-	9.2	0.0	-	-	-	-	

Monthly Precipitation STATION (27) Cajabamba CATCHMENT AREA ____ sq.Km

RIVER IN THE BASIN OF ____ ELEVATION 2,787 m UNIT mm S 7°37' W 78°03'

YEAR	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	ANNUAL
1961													
1962													
1963	-	-	-	-	-	-	-	-	-	93.3	136.9	125.7	
1964	74.6	80.6	108.3	85.9	42.2	3.5	18.0	32.2	36.9	77.7	102.6	71.5	734.0
1965	-	-	-	-	-	-	-	-	-	-	-	-	
1966	103.6	76.7	64.4	42.7	64.3	2.0	6.6	3.0	1.0	155.3	97.7	29.9	647.2
1967	108.3	164.2	183.2	84.2	29.5	2.6	32.7	13.0	11.5	164.5	36.1	91.8	921.6
1968	108.4	109.3	87.6	9.0	21.1	3.9	3.6	18.5	80.5	143.3	24.0	139.4	748.6
1969	36.4	116.3	144.4	78.8	7.3	40.2	3.9	12.1	5.2	65.7	211.8	138.4	860.5
1970	77.8	59.8	97.8	123.0	95.3	13.0	4.0	3.8	35.0	101.6	147.0	111.2	869.3
1971	128.9	136.0	266.1	148.5	57.6	28.0	12.5	8.3	33.8	120.4	105.9	77.8	1,123.8
1972	111.9	77.2	249.5	142.6	100.9	16.0	41.5	19.4	70.8	50.9	136.1	66.2	1,083.0
1973	73.7	141.9	142.2	200.8	13.2	37.3	39.4	13.8	-	150.2	-	-	

Monthly Precipitation STATION (28) Huamachuco CATCHMENT AREA ____ sq.Km

RIVER IN THE BASIN OF ____ ELEVATION 3,260 m UNIT mm S 7°49' W 78°03'

YEAR	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	ANNUAL
1961													
1962	-	-	-	-	-	-	-	-	-	-	-	77.8	
1963	119.7	140.5	262.0	171.4	28.3	-	-	-	-	135.5	98.4	133.5	
1964	128.2	105.8	147.9	110.9	-	0.0	6.6	20.3	30.0	106.2	112.9	63.6	
1965	103.4	102.5	184.5	91.0	25.9	0.0	14.6	24.4	86.9	68.1	79.4	160.4	941.1
1966	153.0	97.4	86.7	63.6	71.0	4.1	0.0	0.1	0.5	172.8	69.4	38.9	757.5
1967	114.1	189.6	133.0	28.0	29.0	4.0	36.2	13.5	2.5	118.2	32.4	79.9	780.4
1968	90.9	139.1	141.1	54.2	30.0	6.0	8.3	54.7	60.3	113.0	26.6	127.9	852.1
1969	85.4	129.9	130.7	94.1	2.9	31.0	6.5	4.5	10.0	119.5	144.4	157.8	916.7
1970	111.6	46.1	102.1	94.2	52.2	16.0	14.7	5.0	36.2	107.9	88.5	75.2	749.7
1971	71.2	130.5	227.0	102.4	59.2	40.1	47.4	14.6	11.7	98.7	100.2	88.5	991.5
1972	75.1	134.7	270.0	107.9	38.7	-	-	-	-	-	-	-	
1973													

Monthly Precipitation STATION (29) Brittantana CATCHMENT AREA ____ sq.km

RIVER, IN THE BASIN OF ____ ELEVATION 3,904.5 m UNIT mm S 7°01' W 78°19'

YEAR	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	ANNUAL
1961													
1962													
1963													
1964													
1965	-	-	-	-	-	-	-	20.1	106.3	177.8	156.0	147.3	
1966	109.0	105.7	132.1	125.7	47.8	21.3	11.9	9.9	56.9	180.1	81.8	53.1	935.3
1967	163.3	189.0	143.3	148.8	30.5	23.6	27.7	24.6	52.3	208.9	63.0	68.1	1,143.1
1968	102.1	162.6	148.3	51.6	50.8	7.1	22.4	27.9	106.2	124.5	81.0	86.4	970.9
1969	78.7	173.0	111.8	172.0	20.1	56.4	5.6	35.6	52.1	150.1	210.1	110.0	1,175.5
1970	156.2	119.4	107.7	129.5	82.3	52.6	24.1	34.8	47.8	212.3	174.0	170.0	1,310.7
1971	130.0	145.8	293.4	146.1	68.1	57.4	34.5	34.3	44.7	133.6	132.1	141.0	1,361.0
1972	159.0	100.8	273.6	94.2	73.4	19.1	22.1	45.5	63.0	79.3	105.2	125.0	1,160.2
1973	180.3	99.1	153.9	179.1	63.8	73.7	-	-	-	-	-	-	

Monthly Precipitation STATION (30) Campo Michiquillay CATCHMENT AREA ____ sq.km

RIVER, IN THE BASIN OF ____ ELEVATION 3,430 m UNIT mm S 7°02' W 78°20'

YEAR	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	ANNUAL
1961													
1962													
1963	-	-	-	-	-	-	-	14.0	122.0	136.5	135.9	115.8	
1964	85.5	85.0	59.5	127.3	46.3	15.5	11.0	53.5	25.0	132.0	73.8	58.2	772.6
1965	79.0	68.0	168.1	140.7	39.5	5.8	17.0	13.0	91.7	150.9	144.0	113.5	1,031.2
1966	87.6	102.1	104.6	110.2	46.5	31.8	7.4	13.2	32.0	169.9	103.9	42.4	851.6
1967	163.3	193.8	144.8	135.1	18.0	11.4	39.6	12.7	32.3	155.7	72.6	82.6	1,061.9
1968	89.7	147.6	145.5	32.3	39.9	8.1	11.9	19.3	69.9	176.0	80.3	73.9	894.4
1969	92.2	134.4	111.8	192.3	7.4	60.2	4.3	15.7	34.8	129.0	160.0	115.8	1,057.9
1970	128.5	81.5	87.1	120.1	62.5	40.1	12.2	19.3	35.8	167.1	188.7	138.4	1,081.3
1971	110.2	103.4	285.8	146.1	56.4	40.1	19.8	13.2	26.9	115.6	126.7	96.0	1,140.2
1972	111.5	87.1	213.6	96.5	69.3	11.9	15.4	21.3	51.1	66.8	117.3	100.3	962.1
1973	167.4	87.6	110.0	220.7	41.4	49.0	-	-	-	-	-	-	

APPENDIX C

CALCULATION OF RUN-OFF AT YANGAS SITE

MANTHLY STREAMFLOW

		LLAUCANC DERIVACION G.S.			YANGAS DAM SITE		
		AREA PREC. (MM/KM2)	RUNOFF (M3/S-DAY)	RUNOFF COEFF.	AREA PREC. (MM/KM2)	RUNOFF (M3/S-DAY)	MASSCURVE (M3/S-DAY)
1963	SEP.	79.0	19.39	0.116	55.0	25.35	4715.18
1963	OCT.	146.7	46.51	0.202	145.1	85.10	4479.78
1963	NOV.	152.7	168.30	0.245	139.6	285.38	4454.99
1963	DEC.	144.7	381.94	0.504	145.5	710.17	4844.66
1964	JAN.	102.1	239.09	0.376	93.2	405.43	4929.59
1964	FEB.	89.3	205.49	0.506	88.7	377.65	5017.76
1964	MAR.	84.8	188.27	0.547	85.7	352.79	5050.05
1964	APR.	114.1	217.83	0.923	104.6	369.97	5109.85
1964	MAY	69.1	101.81	0.495	58.6	161.93	4951.28
1964	JUNE	27.1	62.70	0.215	23.1	100.12	4741.23
1964	JULY	28.3	40.36	0.300	29.0	76.77	4497.50
1964	AUG.	50.3	45.73	0.445	49.1	83.37	4260.37
	TOTAL (AVE.)	1088.3	(143.12)	(0.376)	1017.4	(252.83)	
1964	SEP.	36.0	32.04	0.116	37.8	62.15	4012.37
1964	OCT.	124.2	106.31	0.202	105.7	168.25	3860.12
1964	NOV.	121.4	259.13	0.245	120.6	477.17	4027.13
1964	DEC.	57.8	149.24	0.504	63.1	300.19	4006.82
1965	JAN.	62.3	137.97	0.376	61.7	252.08	3928.40
1965	FEB.	84.2	127.03	0.506	83.3	232.79	3881.71
1965	MAR.	175.5	487.98	0.547	169.0	870.29	4431.50
1965	APR.	155.9	359.80	0.923	234.8	988.00	5109.34
1965	MAY	58.3	208.95	0.495	49.2	331.06	5119.90
1965	JUNE	7.3	58.45	0.215	6.8	100.40	4910.14
1965	JULY	23.4	41.38	0.300	22.6	73.86	4663.51
1965	AUG.	18.9	24.78	0.445	15.4	37.93	4380.94
	TOTAL (AVE.)	925.2	(166.09)	(0.566)	969.9	(324.52)	

MANTHLY STREAMFLOW

		LLAUCANO DERIVACION G.S.			YANGAS DAM SITE		
		AREA PREC. (MM/KM2)	RUNOFF (M3/S-DAY)	RUNOFF COEFF.	AREA PREC. (MM/KM2)	RUNOFF (M3/S-DAY)	MASSCURVE (M3/S-DAY)
1965	SEP.	122.2	32.63	0.116	108.1	53.96	4124.74
1965	OCT.	156.3	203.05	0.202	140.1	337.61	4141.85
1965	NOV.	137.0	310.60	0.245	134.7	564.44	4396.13
1965	DEC.	122.0	207.05	0.504	111.0	349.40	4425.03
1966	JAN.	101.1	358.30	0.376	92.7	608.90	4713.43
1966	FEB.	83.3	143.59	0.506	76.8	245.45	4669.40
1966	MAR.	102.5	131.78	0.547	88.5	211.19	4560.09
1966	APR.	133.8	132.83	0.923	115.1	212.47	4462.40
1966	MAY	61.4	117.55	0.495	55.9	199.61	4341.51
1966	JUNE	17.4	45.41	0.215	16.7	81.62	4112.96
1966	JULY	14.7	33.76	0.300	11.7	50.45	3842.92
1966	AUG.	15.7	23.08	0.445	13.7	37.74	3560.16
	TOTAL (AVE.)	1067.4	(144.97)	(0.414)	964.9	(246.07)	
1966	SEP.	52.9	26.27	0.116	42.8	40.11	3290.11
1966	OCT.	211.2	181.68	0.202	219.1	348.30	3317.91
1966	NOV.	80.4	149.89	0.245	81.1	279.52	3287.37
1966	DEC.	41.8	74.91	0.504	35.7	118.97	3085.84
1967	JAN.	149.9	182.60	0.376	140.9	317.81	3083.15
1967	FEB.	171.0	550.90	0.506	170.3	1012.89	3806.56
1967	MAR.	163.3	499.90	0.547	147.8	840.02	4326.09
1967	APR.	115.6	271.95	0.923	105.5	459.41	4475.33
1967	MAY	35.0	131.20	0.495	33.4	232.84	4387.68
1967	JUNE	24.6	57.95	0.215	20.0	88.70	4166.21
1967	JULY	39.9	41.20	0.300	39.9	75.94	3921.66
1967	AUG.	29.3	29.52	0.445	24.0	45.37	3646.53
	TOTAL (AVE.)	1115.0	(183.16)	(0.447)	1060.6	(321.66)	

MANTHLY STREAMFLOW

		LLAUCANO DERIVACION G.S.			YANGAS DAM SITE		
		AREA PREC. (MM/KM2)	RUNOFF (M3/S-DAY)	RUNOFF COEFF.	AREA PREC. (MM/KM2)	RUNOFF (M3/S-DAY)	MASSCURVE (M3/S-DAY)
1967	SEP.	40.4	31.11	0.116	37.5	54.10	3390.47
1967	OCT.	200.9	108.42	0.202	187.5	187.41	3257.39
1967	NOV.	69.7	128.26	0.245	67.0	228.53	3175.76
1967	DEC.	87.3	127.87	0.504	87.2	236.35	3091.61
1968	JAN.	76.7	115.37	0.376	70.1	195.24	2966.35
1968	FEB.	130.9	199.15	0.506	122.9	346.04	3022.91
1968	MAR.	158.1	409.61	0.547	150.6	722.89	3425.30
1968	APR.	57.4	81.74	0.923	64.6	169.36	3284.51
1968	MAY	57.3	69.56	0.495	50.8	115.15	3079.16
1968	JUNE	11.5	37.45	0.215	12.5	75.30	2844.30
1968	JULY	10.1	23.11	0.300	18.1	40.56	2664.37
1968	AUG.	24.3	22.14	0.445	21.5	36.49	2280.36
	TOTAL (AVE.)	933.8	(112.82)	(0.354)	890.2	(200.62)	
1968	SEP.	118.1	51.27	0.116	111.0	89.51	2059.71
1968	OCT.	132.0	176.48	0.202	129.5	320.41	2059.62
1968	NOV.	64.5	103.94	0.245	59.2	176.64	1926.10
1968	DEC.	68.6	65.35	0.504	62.6	110.50	1716.10
1969	JAN.	81.8	126.61	0.376	79.0	226.44	1622.05
1969	FEB.	141.5	197.86	0.506	129.6	335.60	1668.17
1969	MAR.	157.7	163.34	0.547	148.7	285.94	1633.61
1969	APR.	95.0	383.91	0.923	94.3	701.76	2025.21
1969	MAY	15.4	64.25	0.495	15.5	120.60	1825.32
1969	JUNE	50.0	47.69	0.215	45.3	80.66	1595.82
1969	JULY	4.9	24.27	0.300	4.6	42.55	1317.88
1969	AUG.	22.1	16.63	0.445	17.7	25.00	1022.38
	TOTAL (AVE.)	951.6	(118.47)	(0.448)	896.9	(209.64)	

MANTHLY STREAMFLOW

		LLAUCANC DERIVACION G.S.			YANGAS DAM SITE		
		AREA PREC. (MM/KM2)	RUNOFF (M3/S-DAY)	RUNOFF COEFF.	AREA PREC. (MM/KM2)	RUNOFF (M3/S-DAY)	MASSCURVE (M3/S-DAY)
1969	SEP.	48.5	14.88	0.116	47.5	27.03	739.25
1969	OCT.	140.8	75.91	0.202	132.9	132.65	551.40
1969	NOV.	188.6	326.06	0.245	179.8	575.54	816.78
1969	DEC.	113.2	402.47	0.504	106.6	702.62	1198.90
1970	JAN.	146.0	261.63	0.376	132.5	440.47	1318.87
1970	FEB.	84.8	197.56	0.506	74.2	320.55	1349.94
1970	MAR.	101.1	301.79	0.547	95.0	525.49	1554.03
1970	APR.	121.7	267.94	0.923	114.7	467.90	1712.63
1970	MAY	77.7	238.66	0.495	68.6	394.17	1786.30
1970	JUNE	56.8	83.98	0.215	49.0	135.61	1611.76
1970	JULY	20.7	46.18	0.300	22.0	91.32	1382.58
1970	AUG.	30.0	30.50	0.445	24.6	46.82	1108.90
	TOTAL (AVE.)	1130.0	(187.30)	(0.457)	1047.5	(321.68)	
1970	SEP.	45.7	29.06	0.116	42.3	50.32	849.07
1970	OCT.	184.9	148.54	0.202	179.3	266.44	795.00
1970	NOV.	140.9	425.17	0.245	152.9	816.68	1301.52
1970	DEC.	112.5	425.84	0.504	108.3	757.06	1738.09
1971	JAN.	173.1	275.03	0.376	158.7	468.21	1885.80
1971	FEB.	130.0	363.77	0.506	118.5	614.59	2210.91
1971	MAR.	273.4	874.07	0.547	258.9	1532.21	3422.63
1971	APR.	152.8	700.66	0.923	142.7	1212.70	4325.16
1971	MAY	94.6	220.22	0.495	87.8	380.05	4384.71
1971	JUNE	64.9	151.36	0.215	58.9	256.15	4330.70
1971	JULY	22.6	54.79	0.300	20.0	90.43	4100.63
1971	AUG.	21.3	38.81	0.445	16.7	56.95	3837.09
	TOTAL (AVE.)	1422.9	(308.94)	(0.577)	1345.0	(541.82)	

MANTHLY STREAMFLOW

		LLAUCANC DERIVACION G.S.			YANGAS DAM SITE		
		AREA PREC. (MM/KM2)	RUNOFF (M3/S-DAY)	RUNOFF COEFF.	AREA PREC. (MM/KM2)	RUNOFF (M3/S-DAY)	MASSCURVE (M3/S-DAY)
1971	SEP.	36.5	33.11	0.116	32.9	55.78	3582.70
1971	OCT.	175.4	166.99	0.202	174.6	307.88	3570.08
1971	NOV.	135.7	243.21	0.245	128.9	428.07	3687.99
1971	DEC.	123.2	324.83	0.504	114.2	557.62	3925.11
1972	JAN.	104.6	206.76	0.376	88.6	324.72	3929.33
1972	FEB.	114.5	164.00	0.506	110.3	292.91	3932.76
1972	MAR.	236.5	578.94	0.547	220.7	1000.18	4612.44
1972	APR.	186.1	531.46	0.923	189.9	1004.70	5306.98
1972	MAY	81.0	275.17	0.495	74.5	471.66	5458.13
1972	JUNE	16.1	115.42	0.215	13.4	180.24	5328.21
1972	JULY	36.5	59.78	0.300	30.6	94.07	5101.78
1972	AUG.	34.7	35.18	0.445	28.9	55.16	4836.45
	TOTAL (AVE.)	1280.8	(227.90)	(0.539)	1207.4	(397.75)	
1972	SEP.	66.6	37.44	0.116	64.8	67.51	4593.79
1972	OCT.	69.8	56.32	0.202	71.5	106.61	4379.90
1972	NOV.	98.6	96.19	0.245	104.0	187.22	4256.96
1972	DEC.	89.1	179.58	0.504	83.2	310.36	4246.82
1973	JAN.	142.5	214.41	0.376	127.3	354.92	4281.24
1973	FEB.	92.9	187.55	0.506	89.5	334.33	4326.08
1973	MAR.	144.7	315.64	0.547	141.2	570.26	4575.84
1973	APR.	211.5	779.48	0.923	199.6	1363.31	5628.98
1973	MAY	70.9	171.52	0.495	59.3	269.34	5577.82
1973	JUNE	71.3	74.03	0.215	60.5	117.83	5385.49
1973	JULY	54.4	79.74	0.300	50.7	138.12	5203.11
1973	AUG.	39.4	85.61	0.445	36.7	148.37	5030.98
	TOTAL (AVE.)	1151.8	(189.79)	(0.406)	1088.3	(330.68)	

AVERAG STREMFLOW

	LLAUCANO DERIVACION	YANGAS DAM SITE
AVERAGE OF YEARLY AREA PREC. (MM/KM2)	1106.7	1048.8
AVERAGE OF YEARLY RUNOFF (M3/S-DAY)	2139.07	3776.71
AVERAG OF DAYLY RUNOFF (M3/S-DAY)	5.86	10.34
AVERAG OF RUNOFF COEFF.	0.458	