コロンビア共和国

カウカ河

# フルミート水力発電開発計画

## 調査報告書

付　録

1979年10月

国際協力事業団

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コロンビア共和国

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# APPENDIX－I

## 詳細設計のために必要とする追加調査


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Fig. I - 1 Location Map for Topographic Survey

# I. 詳細設計のために必要とする追加調査

第２章で勧告したごとく，詳細設計開始までに完了を必要とする諸調査の内容を記載する。

## I.1 地形測量

地形測量の範囲についてはFig.I－1 に示す。

## I.2 水文，気象調査

### I.2.1 水文調査

1) Rio Caucaの Julumito測水所，Rio Palace のMalvasaおよびPalace 測水所，ならびにRio sate の Pte.Carretera 測水所の観測を継続して行ない資料を整備する。
2) 上記各測水所において，洪水時の時間流量の観測を行ない整備する。
3) 上記のほか，計画流域近傍におけるRio Caucaの本支流に設置されている測水所の流量観測資料を出来るだけ長期間にわたり収集して整備する。

### I.2.2 気象調査

1) 降雨量資料
   (a) 計画地域内のPopayan，Purace，Coconuco，Florida の各気象観測所における毎日の降雨量の観測を継続して行ない記録を整備する。
   (b) Rio Palace 取水流域内に気象観測所を設け，日降雨量の観測を行ない整備する。
   (c) 上記各測水所において多降水時の時間降雨量の観測を行ない整備する。
   (d) 上記のほか，計画流域近傍におけるRio Caucaの本，支流に設けられている気象観測所の降雨量観測記録を出来るだけ長時間にわたり収集して整備する。
2) 気温，湿度および蒸発量

   Popayan気象観測所における毎日の気温，湿度および蒸発量の観測資料を出来るだけ長期間にわたり収集して整備する。

## I.3 地 質 調 査

1979年5月よりＩＣＥＬならびに調査団は詳細設計に必要な現地諸調査（地質調査工事，ダム築造材料試験および地形図の作成等）を実施し，これを完成した。

調査団はこれらの諸調査結果を分析した結果，なお，若干の追加補足調査（ダム基礎，ダム盛立材料等に対する追加試験他）を行うことが望ましいと考える。

以下，追加補足調査の内容を示す。

### I.3.1 Julumatoダム地点

(1) 現位置載荷試験

火山灰層および風化安山岩熔岩の地耐力を推定するために行う試験である。試験はトレンチ,調査横坑およびテストピットを利用し，荷重ー沈下量曲線を作成し，変形指数，静弾性係数，降伏荷重を算出する。

試験位置は次表の通りである。

Test Points for In-situ Loading Tests

| Test Adit or Pit | Test Point | Number of Test Points |
|---|---|---|
| | (Distance in meters from portal) | |
| Test Adit A-1 | 5, 10 and 15 m | 3 |
| A-2 | do | 3 |
| A-3 | do | 3 |
| A-4 | do | 3 |
| | (Depth in meters from top) | |
| Test Pit DTP-101 | 3, 5 and 7 m | 3 |
| DTP-102 | do | 3 |

なお，Test Aditについては坑口部が崩壊しているものであり，実施に当っては清掃と載荷面部の再掘削が必要である。

(2) 不かく乱試料による試験

a) 透水試験

b) 一面せん断試験……30cm × 30cm × 25cm 程度の試料を採取し，圧密，非排水試験として行い，圧密時，せん断時の変形ー応力曲線を作成し，C，φを計算する。C，φの計算は，4個以上の試料により垂直荷重を変え行うものとする。

c) ＣＢＲ試験……一面せん断試験，三軸圧縮試験および圧密試験との相関性を求め，ダム基礎の評価を行う資料の一つとする。

d) 三軸圧縮試験……シンウォールサンプラーにより採取し，圧密，非排水試験および圧

密・排水試験を行う。

e) 圧密試験

基盤の透水性，圧密沈下およびせん断強度について考察するために行う上記の試験に伴なって，同一試料について次の試験を行うべきである。

f) 自然含水比

g) 現場密度

h) 乾燥密度

i) 土粒子の比重

j) 粒度分析

特に0.074mm以下の粒度についても分析を行い，シルトおよび粘土の組成を明らかにする。

k) コンシステンシー

試料は出来るだけ自然含水比に近い状態のものを用い，炉乾燥したものに加水して試験することは避ける。液性限界の試験の際は試料の練り返しを充分に行う。

l) 現位置（もしくは不かく乱試料）での飽和度および間隙比の算出を行う。

(3) グラウト試験

火山灰層および風化残留度についての透水試験結果を見ると3～5 kg/cm²の圧力において急激に流量の増加する点（限界圧力）があり，ルジオン値も25～50となっている。これらの地層に効果的にグラウトを行いしゃ水効果を得るには，グラウトの工法を検討する必要がある。この地点については，3列もしくは5列のパターングラウトとし，外周より1次～5次とグラウトを行い，それぞれにおいて透水係数を算出し，注入量との相関性を調べる。

グラウトミルク注入におけるパッカーは，軟質な地質なので装着長が長く，かつ孔径の変化にも容易に追従するAir Packerタイプを使用することが望ましい。

### I.3.2 ダイク№1，№2地点

№1，№2地点それぞれに深度7m，1.5m×1.5mのピットを各2坑，計4坑を掘削して3m，5m，7mより不かく乱試料を採取し，一面せん断試験，三軸圧縮試験，圧密試験，自然含水比，現場密度，土粒子の比重，粒度分析，コンシステンシー，現位置での飽和度の算定を行う。

### 1.3.3 Rio Palace取水ダムおよびPalace集水路

Rio Palace 取水ダム地点については，河床砂礫の厚さおよび左岸部の風化部の厚さを確認するため，長さ20mのボーリングを2本施工することが望ましい。

また，トンネルルートについては被りの薄い所で，長さ 60 m のボーリング1本を行うことが望しい。

### I.3.4 Rio Blanco 取水ダムおよび Blanco 集水路

Rio Blanco 取水ダム付近は，河床砂礫と，低い段丘状の氾濫原堆積物よりなっており，ダム基礎としては良好とは言い難い。長さ 20 m のボーリング3本を行い，ダム基礎の地質状況を確認することが望しい。

Blanco 集水路については，トンネル部分に長さ 60 mのボーリングを 2ケ所施工することが望しい。

## I.4 ダム盛立材料

### I.4.1 原石山地点

発電所地点より約 500 m下流の Cauca川左岸部で行ったボーリングQDH－1の結果では火山灰層の厚さは 26.0 m と比較的薄いが，その下の安山岩は風化作用を強く受けており，深度 54 m までは堅い安山岩は得られない。

従って本地点は原石山地点として一応可能ではあるが，更に代案として別の地点をも調査しておくことが望しい。

次の段階の調査としては，Rio Cauca左岸において発電所対岸の比較候補地点に長さ 100 mのボーリング1本を行い，地質状況を把握すると共に，原石山としての施工性を検討しておくことが望しい。

### I.4.2 土質材料採取地点

今回，主として火山灰層をコアー材料として使用する場合について諸試験を行い，その可能性について見通しを得たが，しゃ水性が優れている反面，高含水比であるための問題点もあることが判った。

従って，次の試験を追加して実施することが望しい。

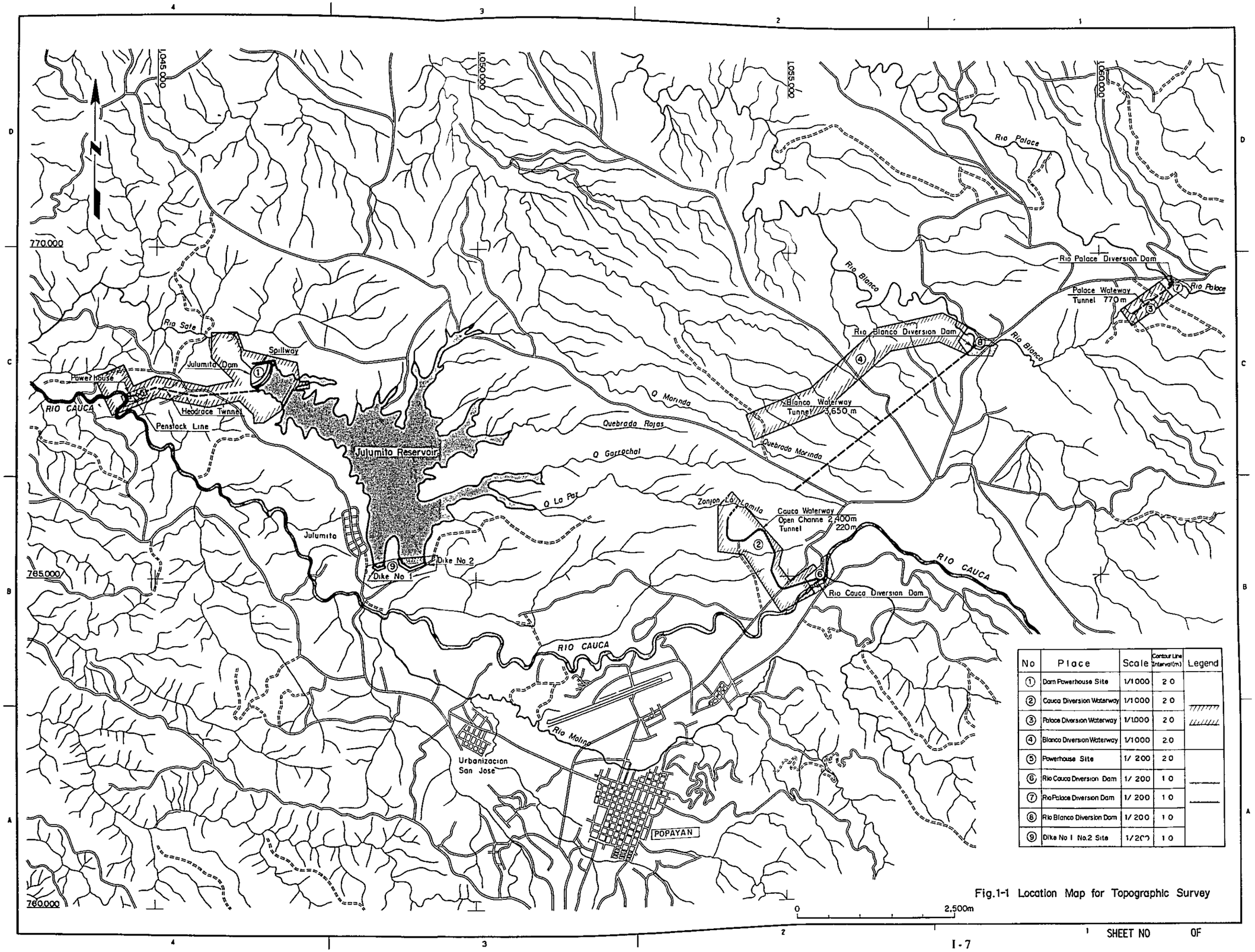
(1) 深いテストピットによる試験

深さ 15 m 程度のテストピットを掘り 1 m 毎の深度より試料を採取し，一連の物性試験を行い，深さによる風化の影響の変化，物性値の変化等を調べる。

(2) 混合材料による試験

火山灰層と風化安山岩とを適当な割合で混合して，火山灰層のみをコアー材料として使用する場合の欠点を補うこととして，突固め透水試験，三軸圧縮試験等を行うことが望しい。

風化安山岩が得られる可能性のある場所としては，発電所地点下流約500 mのRio Cauca右岸に面した個所が考えられる。




| No | Place | Scale | Contour Line Interval(m) | Legend |
|---|---|---|---|---|
| ① | Dam Powerhouse Site | 1/1000 | 2 0 | |
| ② | Cauca Diversion Waterway | 1/1000 | 2 0 | |
| ③ | Palace Diversion Waterway | 1/1000 | 2 0 | |
| ④ | Blanco Diversion Waterway | 1/1000 | 2 0 | |
| ⑤ | Powerhouse Site | 1/ 200 | 2 0 | |
| ⑥ | Rio Cauca Diversion Dam | 1/ 200 | 1 0 | |
| ⑦ | Rio Palace Diversion Dam | 1/ 200 | 1 0 | |
| ⑧ | Rio Blanco Diversion Dam | 1/ 200 | 1 0 | |
| ⑨ | Dike No 1 No.2 Site | 1/200 | 1 0 | |

Fig.1-1 Location Map for Topographic Survey

SHEET NO OF

# APPENDIX－II

## CEDELCA および CEDENAR の電力需要実績


II－1 Performance at Generating End ..... II－1

II－2 Performance at Customers End ..... II－3

II－3 General Information (1970 － 1977) : CEDELCA ..... II－5

II－4 General Information (1970 － 1977) : CEDENAR ..... II－6

II－5 Population of Cauca and Nariño Provinces ..... II－7

## II-1 Performance at Generating End

| Year | CEDELCA Maximum demand (MW) | CEDELCA Generated energy (GWh) | CEDELCA Energy growth rate (%) | CEDELCA Load Factor (%) | CEDENAR Maximum demand (MW) | CEDENAR Generated energy (GWh) | CEDENAR Energy growth rate (%) | CEDENAR Load Factor (%) | Total Maximum demand (MW) | Total Generated energy (GWh) | Total Energy growth rate (%) | Total Load Factor (%) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1966 | 8.2 | 41.9 | 11.4 | 58.3 | 9.3 | 48.4 | 21.0 | 59.4 | 17.5 | 90.3 | 16.2 | 58.9 | |
| 1967 | 8.4 | 44.6 | 6.3 | 60.6 | 9.3 | 47.5 | -1.8 | 58.3 | 17.7 | 92.1 | 2.3 | 59.4 | |
| 1968 | 8.9 | 47.6 | 6.5 | 61.1 | 9.4 | 47.7 | 0.2 | 57.9 | 18.3 | 95.1 | 3.3 | 59.3 | -CEDELCA power system was interconnected with CEDENAR system in 1968 |
| 1969 | 11.4 | 51.2 | 7.3 | 51.3 | 20.0 | 61.7 | 29.3 | 35.2 | 31.4 | 105.9 | 11.3 | 38.5 | -Rio Mayo P.S. was put in service in September, 1969 |
| 1970 | 12.3 | 61.8 | 20.8 | 57.4 | 18.8 | 85.7 | 39.0 | 52.0 | 29.2 | 147.5 | 39.3 | 57.7 | |
| 1971 | 13.1 | 66.7 | 7.8 | 58.1 | 19.4 | 103.6 | 20.9 | 61.0 | 32.5 | 170.3 | 15.5 | 59.8 | |
| 1972 | 13.9 | 70.3 | 5.4 | 57.7 | 26.8 | 133.1 | 28.5 | 56.7 | 40.7 | 203.4 | 19.4 | 57.0 | -CEDELCA and CEDENAR power systems were interconnected with the central power system in 1973 |
| | | (69.8) | | (53.5) | | (130.1) | | (53.4) | | (199.9) | | (53.4) | |
| 1973 | 14.9 | 82.8 | 17.8 | 63.4 | 27.8 | 133.3 | 0.2 | 54.7 | 42.7 | 216.1 | 6.2 | 57.8 | |
| | | (82.6) | | (63.7) | | (144.8) | | (52.8) | | (227.4) | | (56.3) | |
| 1974 | 14.8 | 120.8 | 45.9 | 93.1 | 31.3 | 147.7 | 10.8 | 53.9 | 46.1 | 268.5 | 24.2 | 66.5 | |
| | | (102.0) | | (61.3) | | (162.7) | | (53.2) | | (264.7) | | (56.1) | |
| 1975 | 19.0 | 164.7 | 36.3 | 98.9 | 34.9 | 164.9 | 11.6 | 53.9 | 53.9 | 329.6 | 22.7 | 69.8 | -Florida No.2 P.S. was put in service in November, 1975 |
| | | (111.3) | | (55.2) | | (182.5) | | (48.5) | | (293.8) | | (50.9) | |
| 1976 | 23.0 | 129.8 | -21.2 | 64.4 | 42.9 | 184.0 | 11.6 | 48.9 | 65.9 | 313.8 | -4.8 | 54.3 | |
| | | (120.6) | | (53.4) | | (182.7 | | (43.6) | | (303.3) | | (47.0) | -Ipiales substation was interconnected with Catambuco substation through 115 kV transmission line in December, 1975 |
| 1977 | 25.8 | 126.3 | -2.7 | 55.8 | 47.8 | 184.9 | 0.5 | 44.2 | 73.6 | 311.2 | -0.1 | 48.3 | |
| Annual growth rate(%) | | | | | | | | | | | | | |
| '66 - '71 | 9.8 | 9.7 | - | - | 15.8 | 16.4 | - | - | 13.2 | 13.5 | - | - | |
| | | (10.4) | | | | (9.9) | | | | (10.1) | | | Figures in parenthesis indicate the value except for the energy sold to other electric power companies |
| '71 - '77 | 11.9 | 11.2 | - | - | 16.2 | 10.1 | - | - | 14.6 | 10.6 | - | - | |

## II-2 Performance at Customers End

| | CEDELCA | | | | | | | | | CEDENAR | | | | | | | | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | (A) Generated energy (GWh) | Residentials (GWh) | Commercials (GWh) | Industrial (GWh) | Officials (GWh) | Street lighting (GWh) | (B) Others (GWh) | (C) Subtotal (GWh) | (D) Loss factor (%) | Generated energy (GWh) | Residentials (GWh) | Commercials (GWh) | Industrial (GWh) | Officials (GWh) | Street lighting (GWh) | (E) Others (GWh) | (F) Subtotal (GWh) | (G) Loss factor (%) | (H) Energy demand (GWh) | (I) Loss factor (%) |
| 1966 | 41.9 | 21.4 | 3.5 | 3.0 | 2.8 | 1.5 | - | 32.2 | 23.2 | 48.4 | 27.2 | - | 4.5 | 1.1 | 2.7 | - | 35.5 | 26.7 | 67.7 | 25.0 |
| 1967 | 44.6 | 22.3 | 3.5 | 3.1 | 3.0 | 1.5 | - | 33.4 | 25.1 | 47.5 | 27.4 | - | 4.3 | 1.1 | 2.6 | - | 35.4 | 25.5 | 68.8 | 25.3 |
| 1968 | 47.6 | 22.5 | 3.4 | 3.4 | 2.9 | 1.5 | - | 33.7 | 29.2 | 47.7 | 27.5 | 1.1 | 3.8 | 1.3 | 2.4 | - | 36.1 | 24.3 | 69.8 | 26.6 |
| 1969 | 51.2 | 24.1 | 3.7 | 2.9 | 3.0 | 1.5 | - | 35.2 | 31.3 | 61.7 | 29.2 | 6.5 | 5.6 | 1.8 | 2.4 | - | 45.5 | 26.3 | 80.7 | 23.8 |
| 1970 | 61.8 | 28.6 | 4.4 | 3.1 | 3.6 | 2.5 | - | 42.2 | 31.7 | 85.7 | 43.3 | 9.4 | 9.2 | 3.2 | 2.8 | - | 67.9 | 20.8 | 110.1 | 25.4 |
| 1971 | 66.7 | 32.5 | 4.6 | 2.9 | 4.4 | 3.5 | - | 47.9 | 28.2 | 103.6 | 53.4 | 11.1 | 9.3 | 5.4 | 3.0 | - | 82.2 | 20.7 | 130.1 | 23.6 |
| 1972 | 70.3 | 34.3 | 5.0 | 3.0 | 4.6 | 3.6 | - | 50.5 | 28.2 | 133.1 | 57.7 | 10.7 | 9.4 | 5.6 | 3.4 | - | 86.8 | 34.8 | 137.3 | 32.5 |
| 1973 | (69.8) 82.8 | 39.0 | 5.8 | 2.6 | 5.2 | 3.5 | 13.0 | (56.1) 69.1 | 16.5 | (130.1) 133.3 | 64.2 | 11.2 | 10.1 | 6.2 | 3.6 | 3.2 | (95.3) 98.5 | 26.1 | (152.4) 167.6 | 22.4 |
| 1974 | (82.6) 120.8 | 44.9 | 6.5 | 2.8 | 6.3 | 3.8 | 38.2 | (64.3) 102.5 | 15.1 | (144.8) 147.7 | 68.4 | 11.9 | 9.8 | 6.2 | 3.8 | 2.9 | (100.1) 103.0 | 30.3 | (164.4) 205.5 | 23.5 |
| 1975 | (102.0) 164.7 | 50.6 | 6.5 | 2.5 | 6.7 | 4.4 | 62.7 | (70.7) 133.4 | 19.0 | (162.7) 164.9 | 79.1 | 12.8 | 9.3 | 6.3 | 4.1 | 2.2 | (111.6) 113.8 | 31.0 | (182.3) 247.2 | 25.0 |
| 1976 | (111.3) 129.8 | 57.6 | 6.8 | 3.4 | 5.9 | 4.4 | 18.5 | (78.1) 96.6 | 25.6 | (182.5) 184.0 | 89.3 | 12.6 | 9.2 | 6.6 | 5.3 | 1.5 | (123.0) 124.5 | 32.3 | (201.1) 221.1 | 29.5 |
| 1977 | (120.6) 126.3 | 60.2 | 7.0 | 3.9 | 8.3 | 6.8 | 5.7 | (86.2) 91.9 | 27.2 | (182.7) 184.9 | 92.3 | 11.1 | 8.9 | 6.6 | 6.3 | 2.2 | (125.2) 127.4 | 31.1 | (211.4) 219.3 | 29.5 |
| Annual growth rate(%) | | | | | | | | | | | | | | | | | | | | |
| '66 - '71 | 9.7 | 8.7 | 5.6 | -0.1 | 9.5 | 18.5 | - | 8.3 | - | 16.4 | 14.4 | - | 15.6 | 37.5 | 2.1 | - | 18.3 | - | 14.0 | - |
| '71 - '77 | (10.4) 11.2 | 10.8 | 7.2 | 5.1 | 11.2 | 11.7 | - | (10.3) 11.5 | - | (9.9) 10.2 | 9.5 | 0.0 | -0.1 | 3.4 | 13.2 | - | (7.3) 7.7 | - | (8.4) 9.1 | - |

Note: (1) (B) & (E): Energy sold to other electric power companies

(2) (D) & (G): $\frac{(A) - (C)}{(A)} \times 100$

(3) Figures in parenthesis indicate the value except for the energy sold to other electric power companies

## II-3 General Information (1970-1977): CEDELCA

### NUMERO DE SUSCRIPTORES FACTURADOS

| Año | Residencial | Comercial | Industrial | Oficial | Alumbrado Publico | Otras Empresas | Varios | Total |
|---|---|---|---|---|---|---|---|---|
| 1970 | 18874 | 1243 | 99 | 434 | 14 | - | 1 | 20665 |
| 1971 | 19775 | 1361 | 104 | 481 | 16 | - | 21 | 21758 |
| 1972 | 20615 | 1497 | 106 | 509 | 18 | - | 8 | 22753 |
| 1973 | 22159 | 1665 | 105 | 562 | 22 | 1 | 10 | 24524 |
| 1974 | 24008 | 1719 | 125 | 586 | 27 | 1 | 26 | 26492 |
| 1975 | 26699 | 1737 | 129 | 658 | 27 | 1 | 20 | 29271 |
| 1976 | 28403 | 1660 | 145 | 692 | 28 | 1 | 45 | 30974 |
| 1977 | 29309 | 1528 | 164 | 703 | 34 | - | 84 | 31822 |
| Crec.% | 6.49 | 2.99 | 7.48 | 7.13 | 13.51 | - | 88.32 | 6.36 |

### MWh VENDIDOS

| Año | Residencial | Comercial | Industrial | Oficial | Alumbrado Publico | Otras Empresas | Varios | Total |
|---|---|---|---|---|---|---|---|---|
| 1970 | 28620 | 4224 | 3056 | 5069 | 1085 | - | 131 | 42185 |
| 1971 | 32529 | 4596 | 2916 | 4449 | 3527 | - | 52 | 48064 |
| 1972 | 34294 | 4991 | 2967 | 4646 | 3618 | - | 114 | 50630 |
| 1973 | 39012 | 5777 | 2572 | 5246 | 3524 | 12961 | 39 | 69131 |
| 1974 | 44868 | 6484 | 2808 | 6308 | 3842 | 38108 | 49 | 102467 |
| 1975 | 50703 | 6491 | 2545 | 6676 | 4409 | 62660 | 18 | 135502 |
| 1976 | 57597 | 6848 | 3441 | 5949 | 4109 | 37865 | 457 | 116266 |
| 1977 | 60231 | 7018 | 3914 | 8338 | 6771 | 5500 | 240 | 92012 |
| Crec.% | 11.22 | 7.52 | 3.60 | 7.37 | 29.90 | -19.29 | 9.03 | 11.79 |

### VALOR DE LA ENERGIA VENDIDA (MILES DE PESOS)

| Año | Residencial | Comercial | Industrial | Oficial | Alumbrado Publico | Otras Empresas | Varios | Total |
|---|---|---|---|---|---|---|---|---|
| 1970 | 4505 | 671 | 454 | 745 | 89 | - | 20 | 6484 |
| 1971 | 5559 | 813 | 490 | 861 | 367 | - | 22 | 8112 |
| 1972 | 7021 | 1109 | 552 | 1050 | 400 | - | 39 | 10171 |
| 1973 | 9544 | 1658 | 523 | 1210 | 406 | 1919 | 31 | 15291 |
| 1974 | 12619 | 2157 | 681 | 1400 | 445 | 5640 | 27 | 22969 |
| 1975 | 17896 | 2895 | 1264 | 2111 | 599 | 14013 | 45 | 38823 |
| 1976 | 25553 | 3937 | 2097 | 2846 | 721 | 3613 | 408 | 39175 |
| 1977 | 40242 | 5604 | 2969 | 4312 | 2411 | 1091 | 167 | 56796 |
| Crec.% | 36.73 | 35.42 | 30.77 | 28.51 | 60.21 | -13.17 | 35.42 | 36.35 |

## II-4 General Information (1970-1977): CEDENAR

### NUMERO DE SUSCRIPTORES FACTURADOS

| Año | Residencial | Comercial | Industrial | Oficial | Alumbrado Publico | Otras Empresas | Varios | Total |
|---|---|---|---|---|---|---|---|---|
| 1970 | 26653 | 2711 | 423 | 347 | 25 | 1 | - | 30160 |
| 1971 | 28281 | 2840 | 475 | 407 | 27 | 1 | - | 32031 |
| 1972 | 33060 | 2803 | 502 | 462 | 20 | 1 | - | 36848 |
| 1973 | 32236 | 2855 | 546 | 474 | 30 | 1 | - | 36142 |
| 1974 | 34296 | 3191 | 580 | 431 | 32 | 1 | - | 38531 |
| 1975 | 40402 | 3019 | 596 | 479 | 38 | 1 | - | 44535 |
| 1976 | 44384 | 3069 | 590 | 499 | 58 | 1 | - | 48601 |
| 1977 | 48438 | 2869 | 524 | 515 | 54 | 2 | - | 52402 |
| Crec.% | 8.91 | 0.81 | 3.11 | 5.80 | 11.63 | 10.41 | - | 8.21 |

### MWh VENDIDOS

| Año | Residencial | Comercial | Industrial | Oficial | Alumbrado Publico | Otras Empresas | Varios | Total |
|---|---|---|---|---|---|---|---|---|
| 1970 | 43469 | 9290 | 9100 | 6100 | 2869 | 11160 | - | 81988 |
| 1971 | 53373 | 11050 | 9256 | 5425 | 3245 | 16473 | - | 98822 |
| 1972 | 57746 | 10711 | 9390 | 5593 | 3390 | 16885 | - | 103715 |
| 1973 | 64179 | 11209 | 10065 | 6238 | 3638 | 3210 | - | 98539 |
| 1974 | 68387 | 11905 | 9755 | 6201 | 3818 | 2934 | - | 103000 |
| 1975 | 79075 | 12788 | 9192 | 6249 | 4141 | 2185 | - | 113630 |
| 1976 | 89600 | 12631 | 9167 | 6640 | 5258 | 1519 | - | 124815 |
| 1977 | 92310 | 11100 | 8888 | 6599 | 6289 | 2213 | - | 127399 |
| Crec.% | 11.36 | 2.58 | -0.34 | 1.13 | 11.86 | -20.64 | - | 6.50 |

### VALOR DE LA ENERGIA VENDIDA (MILES DE PESOS)

| Año | Residencial | Comercial | Industrial | Oficial | Alumbrado Publico | Otras Empresas | Varios | Total |
|---|---|---|---|---|---|---|---|---|
| 1970 | 6364 | 1422 | 1271 | 458 | 241 | 1173 | - | 10929 |
| 1971 | 9837 | 2752 | 1805 | 1028 | 342 | 1903 | - | 17667 |
| 1972 | 12352 | 2870 | 2090 | 1104 | 384 | 1872 | - | 20672 |
| 1973 | 14750 | 3126 | 2314 | 1332 | 445 | 362 | -- | 22329 |
| 1974 | 17468 | 4095 | 2554 | 1440 | 606 | 313 | - | 26476 |
| 1975 | 26420 | 6286 | 4689 | 2306 | 1290 | 240 | - | 41231 |
| 1976 | 38699 | 7679 | 6103 | 3233 | 2103 | 303 | - | 58120 |
| 1977 | 56189 | 10025 | 7245 | 4310 | 3931 | 780 | - | 82480 |
| Crec.% | 36.50 | 32.18 | 28.23 | 37.75 | 49.01 | -5.66 | - | 33.47 |

## II-5 Population

Unit: Thousand persons

| | Cauca | Nariño | (A) Sub-total | (B) Entire Country | (A)/(B) x 100 |
|---|---|---|---|---|---|
| 1964 | 607.2 | 705.6 | 1,312.8 | 17,484.5 | 7.5 |
| 1965 | 623.3 | 729.2 | 1,352.5 | 18,107.8 | 7.5 |
| 1966 | 636.2 | 748.2 | 1,384.4 | 18,611.4 | 7.5 |
| 1967 | 643.4 | 767.7 | 1,411.1 | 19,129.1 | 7.4 |
| 1968 | 662.9 | 787.7 | 1,450.6 | 19,661.1 | 7.4 |
| 1969 | 676.7 | 808.3 | 1,485.0 | 20,207.9 | 7.4 |
| 1970 | 690.7 | 829.3 | 1,520.0 | 20,770.0 | 7.3 |
| 1971 | 705.0 | 850.9 | 1,555.9 | 21,347.7 | 7.3 |
| 1972 | 719.6 | 873.1 | 1,592.7 | 21,941.5 | 7.3 |
| 1973 | 734.6 | 895.9 | 1,630.5 | 22,551.8 | 7.2 |
| 1974 | 749.8 | 919.3 | 1,669.1 | 23,179.1 | 7.2 |
| 1975 | 765.3 | 943.2 | 1,708.5 | 23,823.7 | 7.2 |
| 1976 | 781.2 | 967.8 | 1,749.0 | 24,486.4 | 7.2 |
| 1977 | 797.4 | 993.1 | 1,790.5 | 25,167.5 | 7.1 |
| 1978 | 813.9 | 1,018.9 | 1,832.8 | 25,867.5 | 7.1 |
| 1979 | 830.8 | 1,072.8 | 1,903.6 | 26,586.9 | 7.1 |
| 1980 | 848.0 | 1,100.7 | 1,948.7 | 27,326.5 | 7.1 |
| 1981 | 865.6 | 1,129.3 | 1,994.9 | 28,086.5 | 7.1 |
| Increase(%) | | | | | |
| '64 - '73 | 2.1 | 2.7 | 2.4 | 2.9 | - |
| '73 - '81 | 2.1 | 2.9 | 2.6 | 2.8 | - |

# APPENDIX—III

## コロンビア共和国経済の概要

## TABLE LIST

Table III - 1 Trend in Gross Domestic Product

Table III - 2 Composition of Gross Domestic Product

# コロンビア共和国経済の概要

コロンビア国経済は 60 年代末期からの経済開発計画の立案や輸出目標の設定など積極的な経済政策が実り，比較的順調な発展を示してきた。しかし，コロンビア国経済を支える主要産業は依然として農業であり，コーヒーである。1977 年のコーヒーの農業生産額に占める割合は62％であり，また，輸出の中に占める比率は輸出価格の好調により同じく62％であった。コーヒー依存経済（コーヒーの生産はブラジルに次ぎ世界第２位）は，気象条件と国際相場に左右されるため，コロンビア国政府は多年にわたり産業多角化政策，工業化政策を推進してきた。すなわち輸入代替産業を促進し，輸出産業の育成に努め，産業開発公社（ Instituto de Fomento Industrial），石油公社（ECOPETROL）などを通じ，重化学工業部門の育成にも重点を置き，なかでも石油化学，鉄鋼，造船，自動車部門に資本を集中している。一方，民間部門の投資は既存の製造工業部門への投資が目立ち，繊維，セメント，食品，皮革などに集中している。

この結果は，すでに国内総生産のなかに顕著にみられ，75年の製造部門の GDP 寄与率は1960年の 17.3 ％を 4.0 ％上廻り，77年のそれは 1.4 ％上廻った。（1977 年の製造部門の比率が低下したのはコーヒー価格が高騰したため相対的に低下したものである）農業部門では逆に 1960年の 34.1 ％から1977年には 25.8 ％へ縮小している。（コーヒー価格の高騰がなければさらにこの比率は小さい。）

Table Ⅲ－１に GDP の 1970 年以降の推移を，Table Ⅲ－２に GDP の部門別構成比を示す。

Table III-1 Trend in Gross Domestic Product

| Year | GDP $10^6$ Col.$ | Real Economic Growth Rate (%) |
|---|---|---|
| 1971 | 40,605 | 5.5 |
| 1972 | 43,307 | 6.7 |
| 1973 | 46,602 | 7.2 |
| 1974 | 49,632 | 6.5 |
| 1975 | 52,604 | 5.3 |
| 1976 | 56,812 | 8.0 |
| 1977 | 59,653 | 5.0 |

Note: Price in 1958 = 100

Source: Banco de la República

Table III-2 Composition of Gross Domestic Product

| | 1960 | 1970 | 1975 | 1977 |
|---|---|---|---|---|
| Agriculture | 34.1 | 28.6 | 29.2 | 25.8 |
| Mining | 3.9 | 2.1 | 1.3 | 1.1 |
| Manufacturing | 17.3 | 17.5 | 21.3 | 18.7 |
| Construction | 3.6 | 5.5 | 5.1 | 4.2 |
| Electricity, Gas, Water Supply | 0.9 | 1.5 | 1.2 | 1.8 |
| Transportation & Communication | 6.6 | 7.4 | 6.1 | 8.8 |
| Foreign Trade | 15.7 | 17.3 | 18.1 | - |
| Administration, Defense | 5.5 | 6.9 | 6.8 | - |
| Others | 12.4 | 13.2 | 10.9 | - |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |

77 年のコロンビア国経済は前年に引続き，コーヒーの輸出価格の好調が成長の原動力となり，製造業も繊維，食料品を中心に伸びた半面，米，とうもろこし，小麦等の主要穀物の生産が不振であったため実質成長率（国内総生産）は 5.0 %となり，76年の 8.0 %を下廻った。

10－2－8 項でも述べたごとく，コロンビア国経済最大の問題点はインフレーションで 1977 年の消費者物価上昇率は 22.2 %で前年の 27.2 %を下廻ったものの，政府目標の 10 %は達成できなかった。

外貨準備高は，コーヒーの国際価格が高水準に推移したため 1977 年末に 1,829 百万U.S ドルに達したが，さらに増加傾向にあり 1978 年 6 月には 2,107 百万U.Sドルに達した。

このように 77 年のコロンビア国経済は，コーヒー輸出の好調に支えられ順調に推移したが，78年もコーヒー生産が史上最高を記録するとともに，農業生産も大巾に増加したものと思われ拡大基調を持続し成長率（国内総生産）も 6.8 ～ 8.4 %と予想されている。

# APPENDIX－Ⅳ

## 現在価値計算


Ⅳ．1．コンスタントな年経費の現在価値 …… Ⅳ－1

Ⅳ．2．建設費および設備更新費の現在価値 …… Ⅳ－1

Ⅳ．3．割引率12％の場合の現価計算 …… Ⅳ－2

Ⅳ．3．1．代替火力発電所 …… Ⅳ－2

Ⅳ．3．2．Julumito 水力発電所 …… Ⅳ－4

# 現在価値計算

## Ⅳ.1　コンスタントな年経費の現在価値

コンスタントな年の中央における年経費支出をAとし，割引率をｉとすれば，ｎ年における支出Aの現在価値は次のとおりとなる。

$$\frac{A}{\left(1+\frac{i}{2}\right)(1+i)^{n-1}}$$

もし，年間のインフレ率をｅとすれば，上記現在価格は次のとおりとなる。

$$\frac{A\left(1+\frac{e}{2}\right)(1+e)^{n-1}}{\left(1+\frac{i}{2}\right)(1+i)^{n-1}}$$

従って，このインフレ率を考慮した場合の年支出Aのｎ年間にわたる現価換算合計額 Se は次式で表わされる。

第１年目　　第２年目　　第３年目

$$Se=\frac{A\left(1+\frac{e}{2}\right)}{\left(1+\frac{i}{2}\right)}+\frac{A\left(1+\frac{e}{2}\right)(1+e)}{\left(1+\frac{i}{2}\right)(1+i)}+\frac{A\left(1+\frac{e}{2}\right)(1+e)^2}{\left(1+\frac{i}{2}\right)(1+i)^2}$$

ｎ年目

$$+\cdots\cdots\cdots\cdots\frac{A\left(1+\frac{e}{2}\right)(1+e)^{n-1}}{\left(1+\frac{i}{2}\right)(1+i)^{n-1}}$$

$$=\frac{A\left(1+\frac{e}{2}\right)}{\left(1+\frac{i}{2}\right)}\times\frac{(1+i)\left[(1+i)^n-(1+e)^n\right]}{(1+i)^n\times(i-e)}$$

但し $i \fallingdotseq e$ の場合

$Se = nA$　　但し $i = e$ の場合

## Ⅳ.2　建設費および設備更新費の現在価値

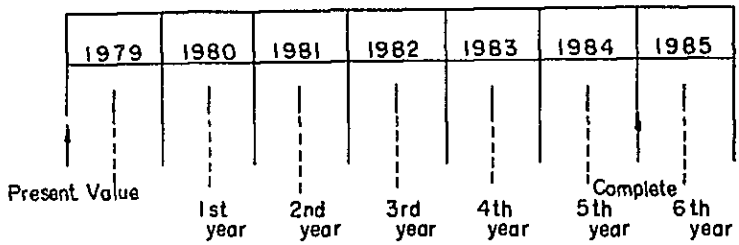
年の中央における価格をAとし，インフレ率をｅとすればｎ年における年央価格 An は次のとおりとなる。

$$An = A(1+e)^n$$

もし割引率を $i$ とすれば上記価格の年初頭の現在価値 A′は次のとおりとなる。

$$A' = \frac{A(1+e)^n}{(1+i)^n(1+\frac{i}{2})}$$

## Ⅳ.3 割引率 12 %の場合の現価計算




### Ⅳ.3.1 代替火力発電所

(1) 建設費 ($10^3$ US$)

外貨分 ( e = 7% i = 12% )

1981 年：1,744 $(1+0.07)^2 / (1+0.12)^2 (1+0.06) = 1,502$

1982 年：7,546 $(1+0.07)^3 / (1+0.12)^3 (1+0.06) = 6,207$

1983 年：9,606 $(1+0.07)^4 / (1+0.12)^4 (1+0.06) = 7,548$

1984 年：8,546 $(1+0.07)^5 / (1+0.12)^5 (1+0.06) = \underline{6,420}$

21,677

内貨分 ( e = 10 % i = 12 % )

1981 年：1,741 $(1+0.1)^2 / (1+0.12)^2 (1+0.06) = 1,585$

1982 年：4,677 $(1+0.1)^3 / (1+0.12)^3 (1+0.06) = 4,180$

1983 年：5,612 $(1+0.1)^4 / (1+0.12)^4 (1+0.06) = 4,924$

1984 年：6,677 $(1+0.1)^5 / (1+0.12)^5 (1+0.06) = \underline{5,759}$

16,448

計 21,677 + 16,448 = 38,115

(2) 運転維持費 ($10^3$ US$)

1985 年中央価格は次のとおり

外貨分：$A = A'(1+e)^6 = 1,108(1+0.07)^6 = 1,663$

内貨分：$A = A'(1+e)^6 = 962(1+0.10)^6 = 1,705$

外貨分 ( e = 7% )

$$Se = \frac{1,663(1+0.035)}{(1+0.06)(1+0.12)^6} \times \frac{(1+0.12)\left[(1+0.12)^{50} - (1+0.07)^{50}\right]}{(1+0.12)^{50}(0.12-0.07)}$$

$$= 822.6 \times \frac{290.68}{14.45} = 16,548$$

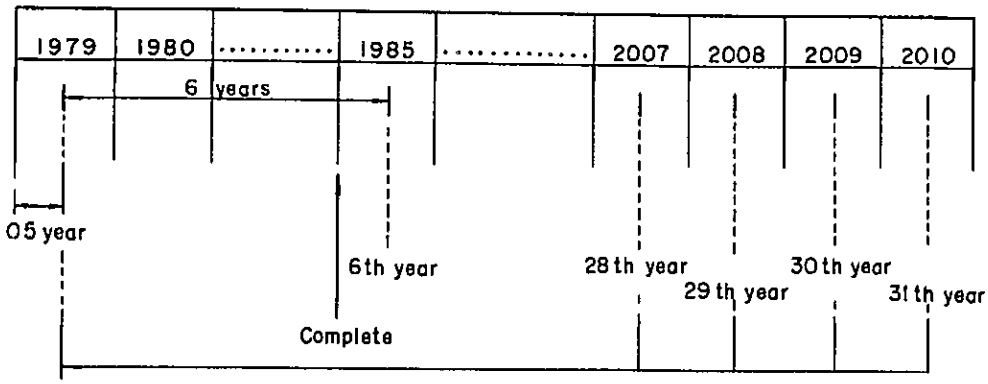
内貨分　（e＝10%）

$$Se = \frac{1,705\ (1+0.05)}{(1+0.06)(1+0.12)^{6}} \times \frac{(1+0.12)\left[(1+0.12)^{50}-(1+0.10)^{50}\right]}{(1+0.12)^{50}\ (0.12-0.10)}$$

$$= 855.6 \times \frac{192.2}{5.78} = 28,451$$

合計　16,548 ＋ 28,451 ＝ 44,999

(3)　設備更新費 ($10^3$ US$)




年度別支出

| | 外貨 | 内貨 | 計 |
|---|---|---|---|
| 2007年 | 1,195 | 1,993 | 3,188 |
| 2008年 | 6,037 | 3,742 | 9,779 |
| 2009年 | 7,684 | 4,490 | 12,174 |
| 2010年 | 7,038 | 4,742 | 11,780 |
| | 21,954 | 14,967 | 36,921 |

外貨分　（e＝7%）

2007年：1,195　$(1+0.07)^{28}/(1+0.12)^{28}(1+0.06)$ ＝ 314

2008年：6,037　$(1+0.07)^{29}/(1+0.12)^{29}(1+0.06)$ ＝ 1,515

2009年：7,684　$(1+0.07)^{30}/(1+0.12)^{30}(1+0.06)$ ＝ 1,842

2010年：7,038　$(1+0.07)^{31}/(1+0.12)^{31}(1+0.06)$ ＝ 1,612

5,283

内貨分　（e＝10%）

2007年：1,993　$(1+0.10)^{28}/(1+0.12)^{28}(1+0.06)$ ＝ 1,135

2008年：3,742　$(1+0.10)^{29}/(1+0.12)^{29}(1+0.06)$ ＝ 2,093

2009年：4,490　$(1+0.10)^{30}/(1+0.12)^{30}(1+0.06)$ ＝ 2,467

2010年：4,742　$(1+0.10)^{31}/(1+0.12)^{31}(1+0.06)$ ＝ 2,559

8,254

合計　5,283 + 8,254 = 13,537

(4)　燃料費の計算 ($10^3$ US$)

$$Se = \frac{2,232\,(1+0.035)}{(1+0.06)\,(1+0.12)^6} \times \frac{(1+0.12)\left[(1+0.12)^{50}-(1+0.07)^{50}\right]}{(1+0.12)^{50}\,(0.12-0.07)}$$

$$= 1,104 \times \frac{290.68}{14.45} = 22,208$$

但し 1979 年の燃料費価格　$1,487 \times 10^3$ US$

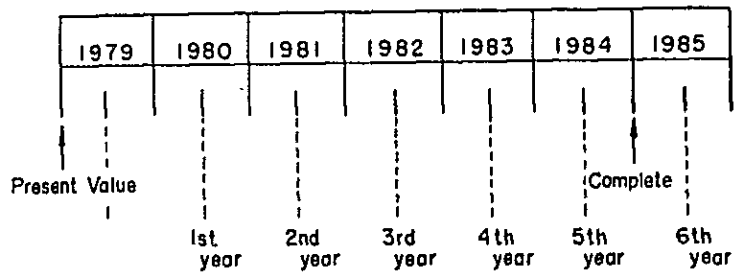
$$A = A'\,(1+0.07)^6 = 1,487\,(1+0.07)^6 = 2,232$$

合計　(1)+(2)+(3)+(4)= 38,125+44,999+13,537+22,208= 118,869

## Ⅳ.3.2　Julumito 水力発電所

(1)　建設費 ($10^3$ US$)

外貨分　( e = 7%　i = 12% )




| | | |
|---|---|---|
| 1979 年 | 0 | |
| 1980 年 | 571 | $(1+0.07)\,/\,(1+0.12)\,(1+0.06) = 515$ |
| 1981 年 | 149 | $(1+0.07)^2\,/\,(1+0.12)^2(1+0.06) = 128$ |
| 1982 年 | 10,587 | $(1+0.07)^3\,/\,(1+0.12)^3(1+0.06) = 8,708$ |
| 1983 年 | 18,695 | $(1+0.07)^4\,/\,(1+0.12)^4(1+0.06) = 14,690$ |
| 1984 年 | 10,559 | $(1+0.07)^5\,/\,(1+0.12)^5(1+0.06) = \underline{7,932}$ |
| | | 31,973 |

内貨分　( e = 10%　i = 12% )

| | | |
|---|---|---|
| 1979 年 | 139 | $/\,(1+0.06) = 131$ |
| 1980 年 | 0 | |
| 1981 年 | 1,554 | $(1+0.1)^2\,/\,(1+0.12)^2(1+0.06) = 1,415$ |
| 1982 年 | 9,192 | $(1+0.1)^3\,/\,(1+0.12)^3(1+0.06) = 8,215$ |
| 1983 年 | 9,709 | $(1+0.1)^4\,/\,(1+0.12)^4(1+0.06) = 8,519$ |
| 1984 年 | 5,975 | $(1+0.1)^5\,/\,(1+0.12)^5(1+0.06) = \underline{5,154}$ |
| | | 23,434 |

合計　31,973 + 23,434 = 55,407

(2) 運転維持費 ($10^3$ US$)

1985年中央価格は次のとおりである。

外貨分：$A = A'(1+e)^6 = 347(1+0.07)^6 = 521$

内貨分：$A = A'(1+e)^6 = 389(1+0.10)^6 = 689$

外貨分 （e＝7%）

$$Se = \frac{521(1+0.035)}{(1+0.06)(1+0.12)^6} \times \frac{(1+0.12)\left[(1+0.12)^{50}-(1+0.07)^{50}\right]}{(1+0.12)^{50}(0.12-0.07)}$$

$$= 257.7 \times \frac{290.68}{14.45} = 5,184$$

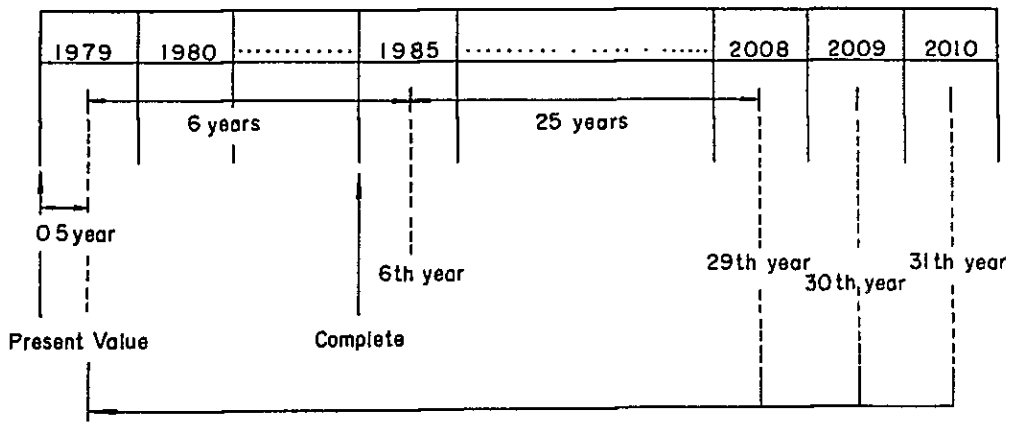
内貨分 （e＝10%）

$$Se = \frac{689(1+0.05)}{(1+0.06)(1+0.12)^6} \times \frac{(1+0.12)\left[(1+0.12)^{50}-(1+0.1)^{50}\right]}{(1+0.12)^{50}(0.12-0.1)}$$

$$= 345.7 \times \frac{192.2}{5.78} = 11,495$$

合計 5,184＋11,495＝16,679

(3) 設備更新費 ($10^3$ US$)




年度別支出

| | 外貨 | 内貨 | 計 |
|---|---|---|---|
| 2008年 | 1,018 | 42 | 1,060 |
| 2009年 | 7,875 | 380 | 8,255 |
| 2010年 | 4,259 | 779 | 5,038 |
| 計 | 13,152 | 1,201 | 14,353 |

外貨分 （e＝7%）

2008年：$1,018(1+0.07)^{29} / (1+0.12)^{29}(1+0.06) = 255$

2009年：$7,875(1+0.07)^{30} / (1+0.12)^{30}(1+0.06) = 1,888$

2010年：$4,259\ (1+0.07)^{31} / (1+0.12)^{31}(1+0.06) = \underline{975}$

3,118

内貨分　（e＝10%）

2008年：$42\ (1+0.1)^{29} / (1+0.12)^{29}(1+0.06) = 23$

2009年：$380\ (1+0.1)^{30} / (1+0.12)^{30}(1+0.06) = 209$

2010年　$779\ (1+0.1)^{31} / (1+0.12)^{31}(1+0.06) = \underline{420}$

652

計　3,118＋652＝3,770

合計　(1)＋(2)＋(3)＝55,407＋16,679＋3,770＝75,856

# APPENDIX－V

## 水文・気象資料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## V - 1 RUN-OFF DURATION

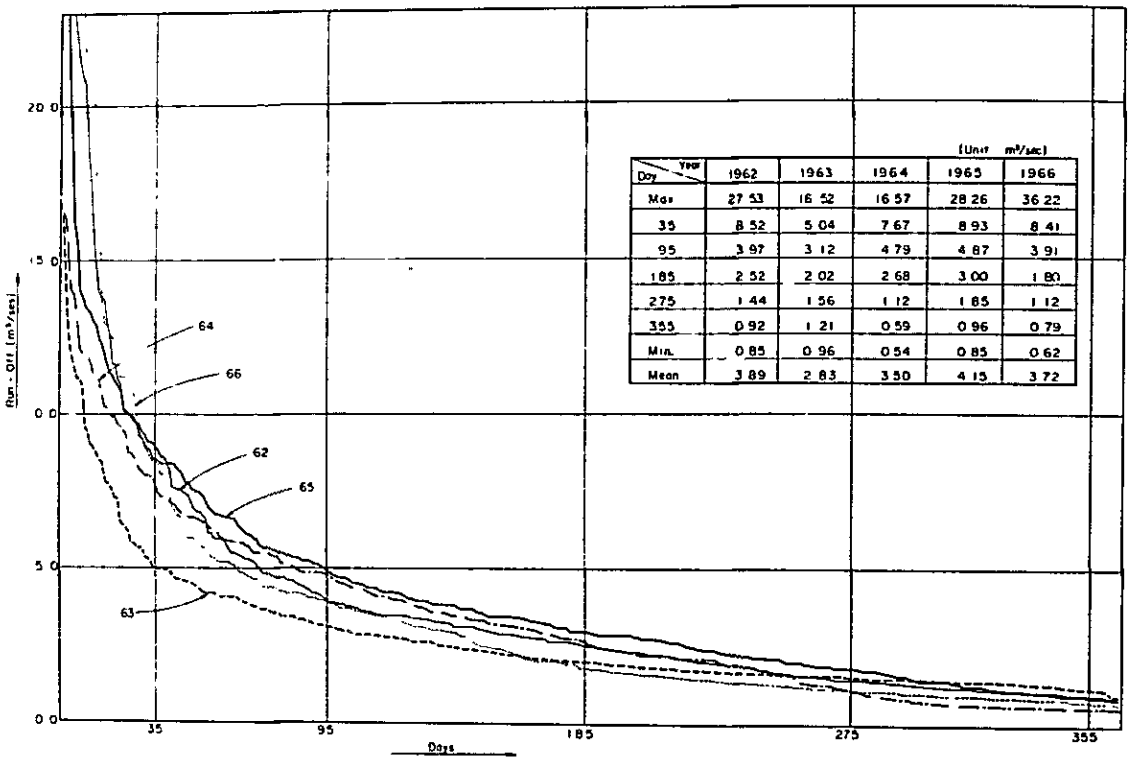
(1) Malvasa Gauging Station (Catchment Area 35 $Km^2$)

(Unit: $m^3/sec$)

| Year | Max. | 35 days | 95 days | 185 days | 275 days | 355 days | Min. | Mean |
|---|---|---|---|---|---|---|---|---|
| 1962 | 27.53 | 8.52 | 3.97 | 2.52 | 1.44 | 0.92 | 0.85 | 3.89 |
| 1963 | 16.52 | 5.04 | 3.12 | 2.02 | 1.56 | 1.21 | 0.96 | 2.83 |
| 1964 | 16.57 | 7.67 | 4.79 | 2.68 | 1.12 | 0.59 | 0.54 | 3.50 |
| 1965 | 28.26 | 8.93 | 4.87 | 3.00 | 1.85 | 0.96 | 0.85 | 4.15 |
| 1966 | 36.22 | 8.41 | 3.91 | 1.80 | 1.12 | 0.79 | 0.62 | 3.72 |
| 1967 | 28.60 | 10.00 | 3.97 | 2.32 | 1.68 | 1.02 | 0.85 | 4.10 |
| 1968 | 24.88 | 17.56 | 5.04 | 2.29 | 1.31 | 0.88 | 0.77 | 5.28 |
| 1969 | 13.63 | 6.72 | 3.88 | 2.02 | 1.24 | 0.68 | 0.49 | 2.99 |
| 1970 | 16.83 | 7.60 | 5.47 | 3.34 | 2.02 | 0.64 | 0.40 | 4.12 |
| 1971 | 21.48 | 6.94 | 4.19 | 2.80 | 2.07 | 1.34 | 1.00 | 3.78 |
| 1972 | 33.44 | 6.82 | 3.66 | 2.53 | 1.90 | 1.18 | 1.00 | 3.52 |
| 1973 | 16.71 | 6.49 | 3.39 | 2.24 | 1.27 | 0.83 | 0.74 | 2.94 |
| 1974 | 34.81 | 5.39 | 3.52 | 2.59 | 2.13 | 1.27 | 1.04 | 3.25 |
| 1975 | 17.53 | 8.13 | 5.64 | 3.45 | 2.24 | 1.09 | 1.00 | 4.31 |
| 1976 | 28.76 | 7.50 | 4.41 | 2.63 | 2.03 | 1.40 | 0.66 | 3.87 |
| Average | - | 8.11 | 4.26 | 5.55 | 1.67 | 0.99 | - | 3.75 |

## (1)−1 Run-Off Duration Curve Malvasa Gauging Station (Catchment Area 35 Km²)

1962 ------ 1966

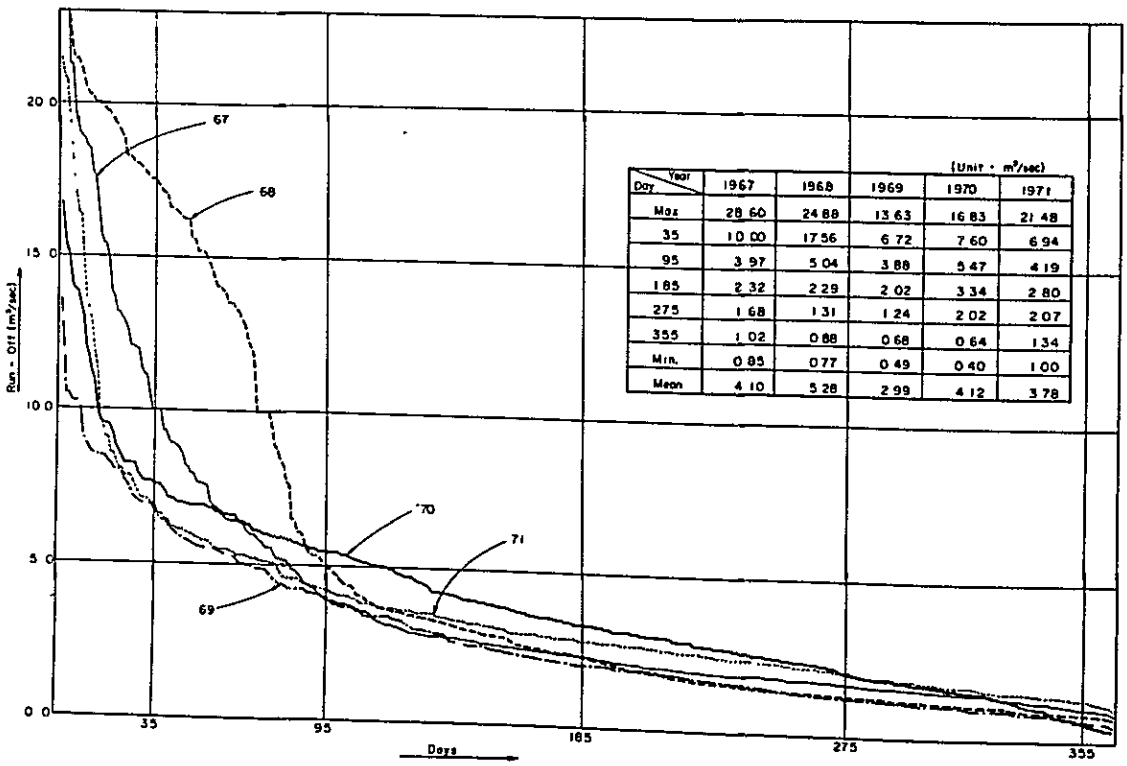



(Unit m³/sec)

| Day \ Year | 1962 | 1963 | 1964 | 1965 | 1966 |
|---|---|---|---|---|---|
| Max | 27 53 | 16 52 | 16 57 | 28 26 | 36 22 |
| 35 | 8 52 | 5 04 | 7 67 | 8 93 | 8 41 |
| 95 | 3 97 | 3 12 | 4 79 | 4 87 | 3 91 |
| 185 | 2 52 | 2 02 | 2 68 | 3 00 | 1 80 |
| 275 | 1 44 | 1 56 | 1 12 | 1 85 | 1 12 |
| 355 | 0 92 | 1 21 | 0 59 | 0 96 | 0 79 |
| Min. | 0 85 | 0 96 | 0 54 | 0 85 | 0 62 |
| Mean | 3 89 | 2 83 | 3 50 | 4 15 | 3 72 |

## (1)−2 Run-Off Duration Curve Malvasa Gauging Station (Catchment Area 35 Km²)

1967 ------ 1971

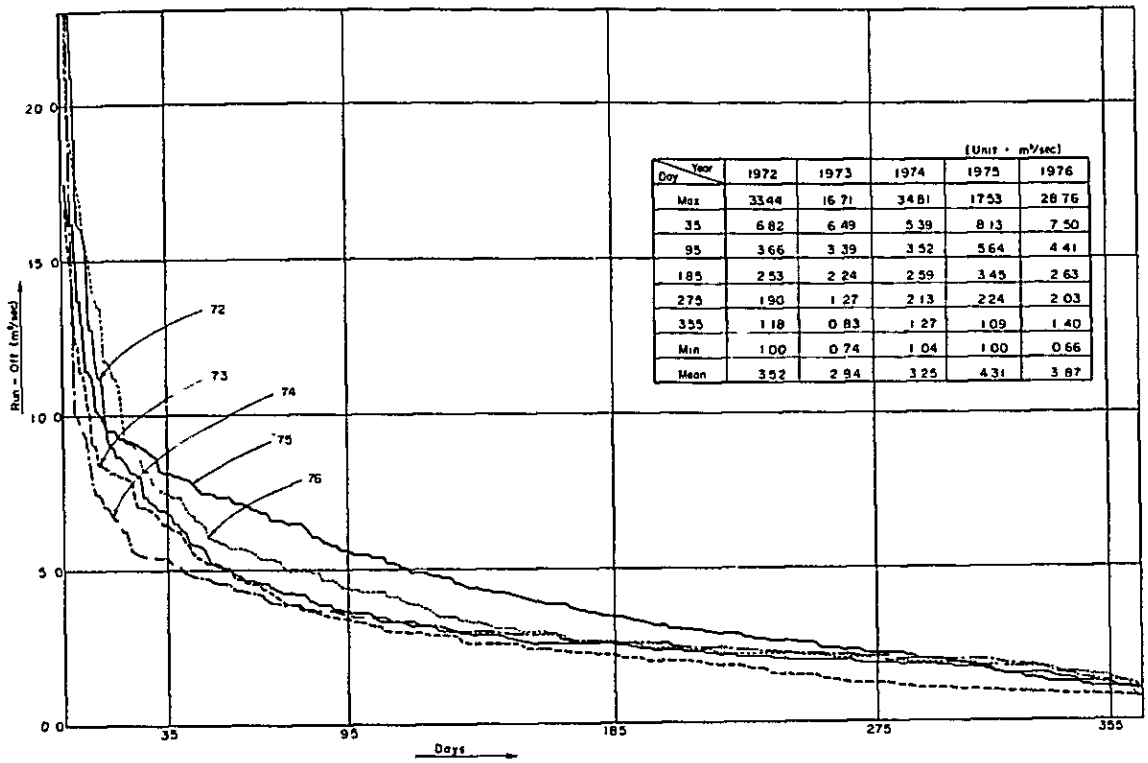



(Unit : m³/sec)

| Day \ Year | 1967 | 1968 | 1969 | 1970 | 1971 |
|---|---|---|---|---|---|
| Max | 28 60 | 24 88 | 13 63 | 16 83 | 21 48 |
| 35 | 10 00 | 17 56 | 6 72 | 7 60 | 6 94 |
| 95 | 3 97 | 5 04 | 3 88 | 5 47 | 4 19 |
| 185 | 2 32 | 2 29 | 2 02 | 3 34 | 2 80 |
| 275 | 1 68 | 1 31 | 1 24 | 2 02 | 2 07 |
| 355 | 1 02 | 0 88 | 0 68 | 0 64 | 1 34 |
| Min. | 0 85 | 0 77 | 0 49 | 0 40 | 1 00 |
| Mean | 4 10 | 5 28 | 2 99 | 4 12 | 3 78 |

## (1)-3 Run-Off Duration Curve Malvasa Gauging Station (Catchment Area 35 Km²)

1972 ------ 1976




(Unit : m³/sec)

| Day \ Year | 1972 | 1973 | 1974 | 1975 | 1976 |
|---|---|---|---|---|---|
| Max | 33.44 | 16.71 | 34.81 | 17.53 | 28.76 |
| 35 | 6.82 | 6.49 | 5.39 | 8.13 | 7.50 |
| 95 | 3.66 | 3.39 | 3.52 | 5.64 | 4.41 |
| 185 | 2.53 | 2.24 | 2.59 | 3.45 | 2.63 |
| 275 | 1.90 | 1.27 | 2.13 | 2.24 | 2.03 |
| 355 | 1.18 | 0.83 | 1.27 | 1.09 | 1.40 |
| Min | 1.00 | 0.74 | 1.04 | 1.00 | 0.66 |
| Mean | 3.52 | 2.94 | 3.25 | 4.31 | 3.87 |

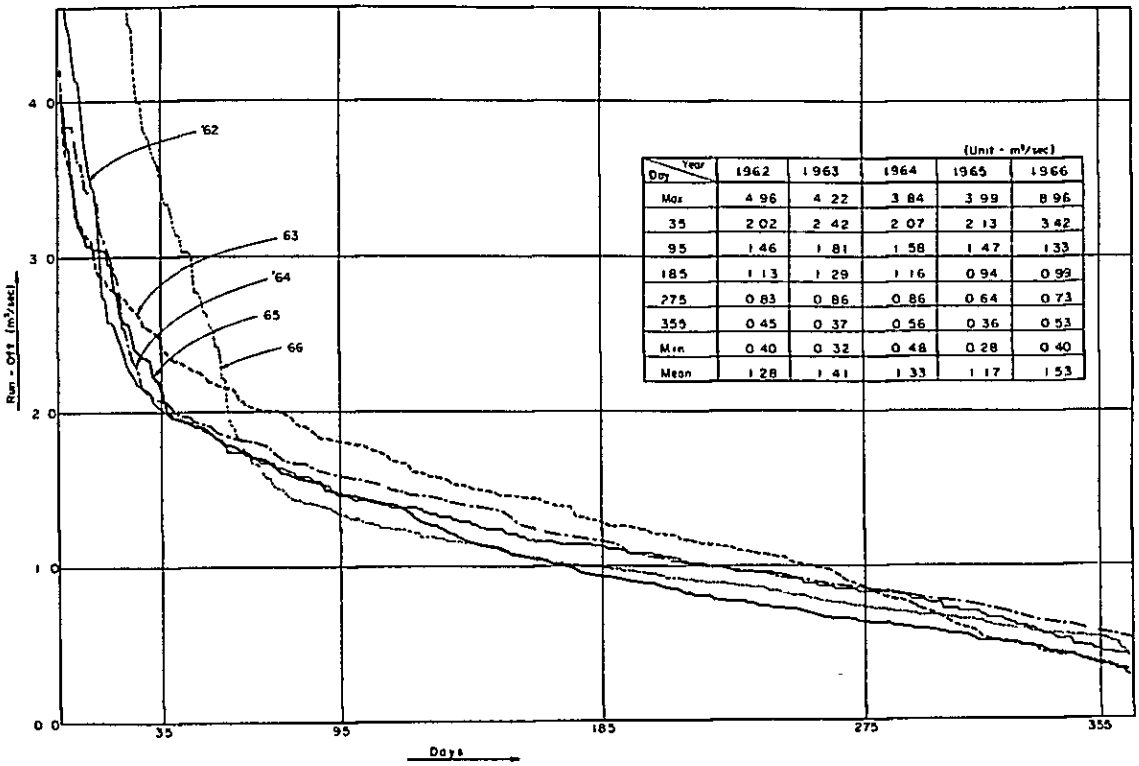
(2) Pte. Carretera Gauging Station (Catchment Area 38 $Km^2$)

(Unit: $m^3/sec$)

| Year | Max. | 35 days | 95 days | 185 days | 275 days | 355 days | Min. | Mean |
|---|---|---|---|---|---|---|---|---|
| 1962 | 4.96 | 2.02 | 1.46 | 1.13 | 0.83 | 0.45 | 0.40 | 1.28 |
| 1963 | 4.22 | 2.42 | 1.81 | 1.29 | 0.86 | 0.37 | 0.32 | 1.41 |
| 1964 | 3.84 | 2.07 | 1.58 | 1.16 | 0.86 | 0.56 | 0.48 | 1.33 |
| 1965 | 3.99 | 2.13 | 1.47 | 0.94 | 0.64 | 0.36 | 0.28 | 1.17 |
| 1966 | 0.96 | 3.42 | 1.33 | 0.99 | 0.73 | 0.53 | 0.40 | 1.53 |
| 1967 | 5.93 | 2.30 | 1.76 | 1.40 | 1.02 | 0.43 | 0.38 | 1.45 |
| 1968 | 3.75 | 2.18 | 1.61 | 1.22 | 0.98 | 0.58 | 0.50 | 1.35 |
| 1969 | 3.90 | 2.19 | 1.71 | 1.20 | 0.83 | 0.36 | 0.31 | 1.32 |
| 1970 | 4.65 | 1.83 | 1.29 | 0.90 | 0.29 | 0.15 | 0.12 | 0.90 |
| 1971 | 3.65 | 1.87 | 1.34 | 0.86 | 0.44 | 0.17 | 0.12 | 0.98 |
| 1972 | 6.74 | 0.91 | 0.72 | 0.53 | 0.33 | 0.17 | 0.15 | 0.58 |
| 1973 | 4.37 | 1.59 | 1.03 | 0.53 | 0.33 | 0.23 | 0.19 | 0.79 |
| 1974 | 5.50 | 1.61 | 1.19 | 0.59 | 0.27 | 0.16 | 0.16 | 0.79 |
| 1975 | 5.53 | 2.06 | 1.17 | 0.76 | 0.45 | 0.30 | 0.28 | 1.00 |
| 1976 | 4.90 | 1.92 | 1.24 | 0.76 | 0.44 | 0.14 | 0.10 | 0.94 |
| Average | - | 2.03 | 1.38 | 0.95 | 0.62 | 0.33 | - | 1.12 |

## (2)-1 Run-Off Duration Curve Pte. Carretera Gauging Station (Catchment Area 38 Km²)

1962 ------ 1966

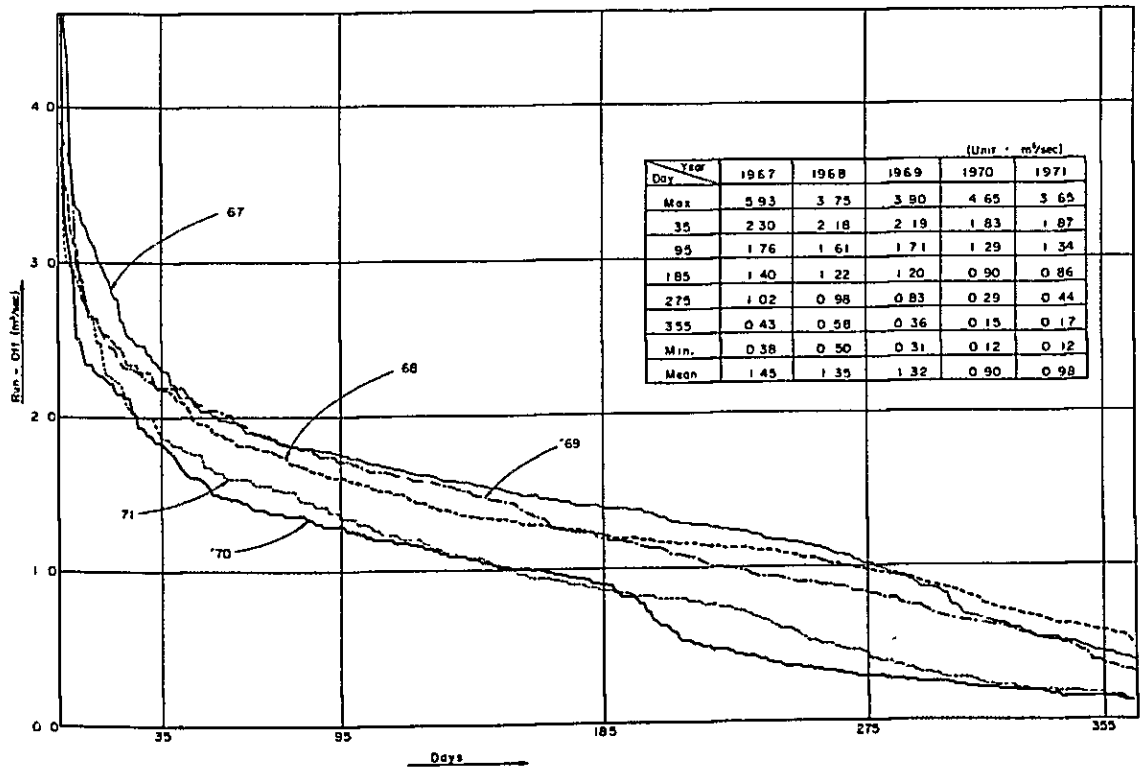



(Unit : m³/sec)

| Year / Day | 1962 | 1963 | 1964 | 1965 | 1966 |
|---|---|---|---|---|---|
| Max | 4 96 | 4 22 | 3 84 | 3 99 | 8 96 |
| 35 | 2 02 | 2 42 | 2 07 | 2 13 | 3 42 |
| 95 | 1 46 | 1 81 | 1 58 | 1 47 | 1 33 |
| 185 | 1 13 | 1 29 | 1 16 | 0 94 | 0 99 |
| 275 | 0 83 | 0 86 | 0 86 | 0 64 | 0 73 |
| 355 | 0 45 | 0 37 | 0 56 | 0 36 | 0 53 |
| Min | 0 40 | 0 32 | 0 48 | 0 28 | 0 40 |
| Mean | 1 28 | 1 41 | 1 33 | 1 17 | 1 53 |

## (2)-2 Run-Off Duration Curve Pte. Carretera Gauging Station (Catchment Area 38 Km²)

1967 ------ 1971

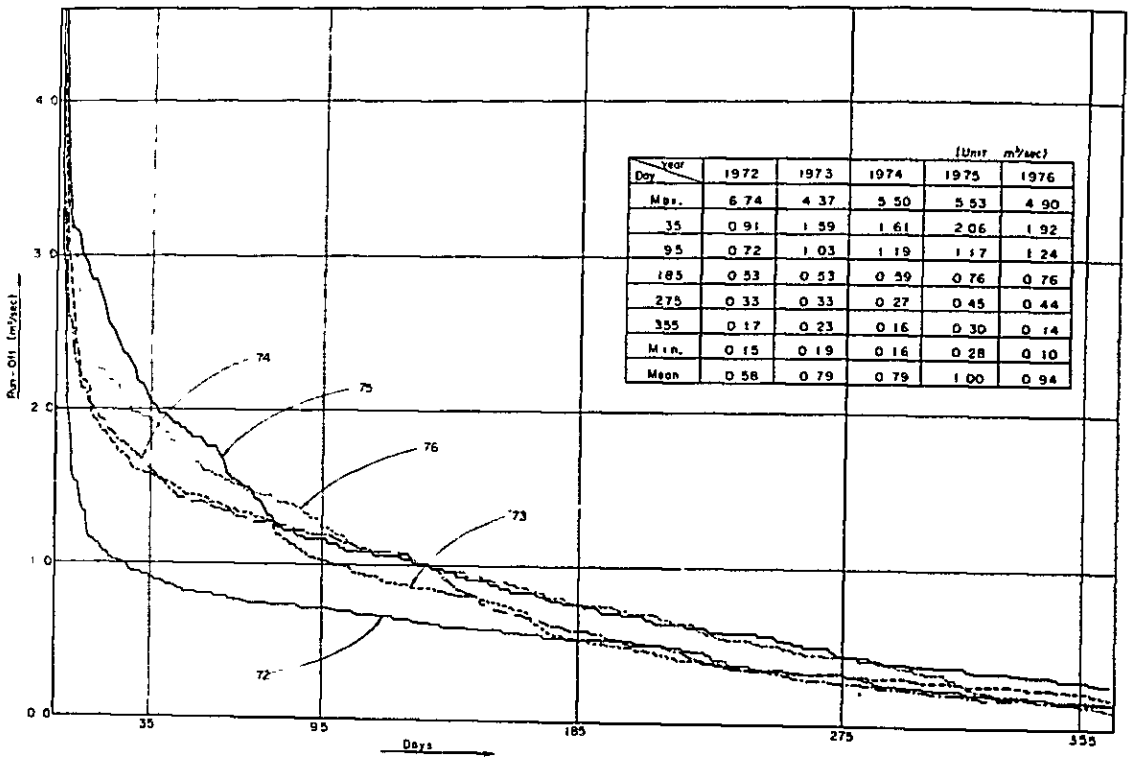



(Unit : m³/sec)

| Year / Day | 1967 | 1968 | 1969 | 1970 | 1971 |
|---|---|---|---|---|---|
| Max | 5 93 | 3 75 | 3 90 | 4 65 | 3 65 |
| 35 | 2 30 | 2 18 | 2 19 | 1 83 | 1 87 |
| 95 | 1 76 | 1 61 | 1 71 | 1 29 | 1 34 |
| 185 | 1 40 | 1 22 | 1 20 | 0 90 | 0 86 |
| 275 | 1 02 | 0 98 | 0 83 | 0 29 | 0 44 |
| 355 | 0 43 | 0 58 | 0 36 | 0 15 | 0 17 |
| Min. | 0 38 | 0 50 | 0 31 | 0 12 | 0 12 |
| Mean | 1 45 | 1 35 | 1 32 | 0 90 | 0 98 |

(2)-3 Run-Off Duration Curve Pte. Carretera Gauging Station (Catchment Area 38 $Km^2$)

1972 ------ 1976




(Unit m³/sec)

| Day \ year | 1972 | 1973 | 1974 | 1975 | 1976 |
|---|---|---|---|---|---|
| Max. | 6.74 | 4.37 | 5.50 | 5.53 | 4.90 |
| 35 | 0.91 | 1.59 | 1.61 | 2.06 | 1.92 |
| 95 | 0.72 | 1.03 | 1.19 | 1.17 | 1.24 |
| 185 | 0.53 | 0.53 | 0.59 | 0.76 | 0.76 |
| 275 | 0.33 | 0.33 | 0.27 | 0.45 | 0.44 |
| 355 | 0.17 | 0.23 | 0.16 | 0.30 | 0.14 |
| Min. | 0.15 | 0.19 | 0.16 | 0.28 | 0.10 |
| Mean | 0.58 | 0.79 | 0.79 | 1.00 | 0.94 |

## V-2 MONTHLY AVERAGE RUN-OFF

| | Gauging Station | Catchment Area ($Km^2$) | Recording Period |
|---|---|---|---|
| (1) | Julumito | 939.0 | Jan. 1962 - Dec. 1976 |
| (2) | Malvasa | 35.0 | May 1961 - Dec. 1976 |
| (3) | Pte, Carretera | 38.0 | Jan. 1962 - Dec. 1976 |
| (4) | Palace | 204.0 | Jan. 1974 - Dec. 1976 |
| (5) | Salvajina | 3,830.0 | Jan. 1962 - Dec. 1976 |

(1) Gauging Station

Julumito

Catchment Area ($Km^2$)

939.0

Unit: $m^3/sec$

| Year \ Month | Jan. | Feb. | Mar. | Apr. | May | Jun. | Jul. | Aug. | Sep. | Oct. | Nov. | Dec. | Average |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1962 | 22.6 | 24.1 | 26.2 | 21.3 | 26.5 | 29.1 | 28.4 | 24.0 | 17.2 | 18.7 | 24.7 | 32.5 | 24.6 |
| 1963 | 23.1 | 34.7 | 27.1 | 35.8 | 37.7 | 23.8 | 30.4 | 26.6 | 16.0 | 13.3 | 29.4 | 24.6 | 26.8 |
| 1964 | 24.0 | 18.8 | 15.6 | 20.5 | 19.2 | 22.4 | 22.8 | 40.1 | 23.1 | 31.1 | 22.0 | 32.2 | 24.4 |
| 1965 | 23.7 | 31.3 | 18.1 | 26.8 | 35.2 | 28.7 | 25.1 | 26.5 | 16.8 | 18.5 | 37.7 | 25.8 | 26.1 |
| 1966 | 17.7 | 15.5 | 24.0 | 22.3 | 17.9 | 19.4 | 24.7 | 20.5 | 17.4 | 19.3 | 31.4 | 51.3 | 23.5 |
| 1967 | 32.2 | 32.7 | 31.2 | 23.7 | 20.0 | 33.1 | 39.1 | 29.8 | 16.3 | 16.0 | 31.3 | 25.6 | 27.6 |
| 1968 | 19.9 | 15.3 | 21.2 | 23.3 | 17.8 | 24.6 | 32.8 | 16.0 | 15.3 | 26.9 | 39.1 | 24.2 | 23.1 |
| 1969 | 26.6 | 27.9 | 17.3 | 40.3 | 23.5 | 28.2 | 32.0 | 26.4 | 14.8 | 28.2 | 31.6 | 25.8 | 26.8 |
| 1970 | 23.4 | 35.5 | 33.1 | 20.5 | 29.5 | 42.9 | 32.5 | 30.0 | 25.4 | 29.1 | 46.0 | 34.4 | 31.8 |
| 1971 | 39.7 | 31.8 | 26.7 | 36.8 | 28.9 | 23.1 | 36.1 | 22.6 | 16.6 | 22.2 | 27.9 | 25.3 | 28.1 |
| 1972 | 35.2 | 28.7 | 25.8 | 35.4 | 28.3 | 29.0 | 46.1 | 24.7 | 25.2 | 15.3 | 28.7 | 30.5 | 29.4 |
| 1973 | 17.9 | 15.6 | 15.9 | 16.3 | 18.8 | 19.4 | 29.5 | 29.9 | 22.9 | 25.9 | 28.6 | 29.1 | 22.5 |
| 1974 | 29.4 | 41.4 | 41.4 | 24.1 | 27.4 | 22.6 | 43.3 | 25.2 | 19.7 | 22.1 | 33.1 | 28.3 | 29.8 |
| 1975 | 23.4 | 29.8 | 31.1 | 21.6 | 26.7 | 36.6 | 26.6 | 30.7 | 23.8 | 27.1 | 49.3 | 64.5 | 32.6 |
| 1976 | 25.9 | 27.4 | 35.9 | 37.3 | 29.6 | 33.6 | 57.9 | 29.5 | 20.1 | 17.4 | 16.5 | 11.7 | 28.6 |
| Average | 25.6 | 27.4 | 26.0 | 27.1 | 25.8 | 27.8 | 33.8 | 26.8 | 19.4 | 22.1 | 31.8 | 31.8 | 27.0 |

Note: Figures underlined were estimated by a hydraulic analyses

(2) Gauging Station Catchment Area ($Km^2$)

Malvasa 35.0

Unit: $m^3/sec$

| Year \ Month | Jan. | Feb. | Mar. | Apr. | May | Jun. | Jul. | Aug. | Sep. | Oct. | Nov. | Dec. | Average |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1961 | - | - | - | - | 2.0 | 7.0 | 8.3 | 6.2 | 1.6 | 2.9 | 3.6 | 1.7 | - |
| 1962 | 1.39 | 1.07 | 2.21 | 1.81 | 4.25 | 5.59 | 10.68 | 8.29 | 3.27 | 2.65 | 3.06 | 2.03 | 3.89 |
| 1963 | 1.64 | 2.04 | 1.71 | 1.76 | 3.32 | 4.70 | 2.31 | 3.39 | 3.06 | 1.84 | 5.78 | 2.48 | 2.83 |
| 1964 | 0.84 | 0.86 | 0.63 | 1.94 | 2.79 | 4.91 | 4.71 | 5.99 | 4.54 | 7.02 | 3.20 | 4.40 | 3.50 |
| 1965 | 4.35 | 2.01 | 1.45 | 2.74 | 6.08 | 6.52 | 5.08 | 3.84 | 1.63 | 3.24 | 8.85 | 3.91 | 4.15 |
| 1966 | 1.11 | 0.91 | 1.49 | 1.46 | 1.18 | 1.90 | 4.13 | 5.07 | 3.51 | 1.97 | 5.36 | 16.16 | 3.72 |
| 1967 | 2.22 | 1.65 | 1.80 | 2.74 | 2.27 | 11.38 | 8.96 | 8.80 | 1.89 | 1.87 | 3.48 | 2.01 | 4.10 |
| 1968 | 1.39 | 1.47 | 1.62 | 2.99 | 3.98 | 13.57 | 19.44 | 8.53 | 1.13 | 1.85 | 3.66 | 3.54 | 5.28 |
| 1969 | 1.79 | 1.32 | 0.91 | 4.30 | 3.47 | 4.89 | 6.47 | 3.28 | 1.65 | 4.05 | 2.32 | 1.32 | 2.99 |
| 1970 | 1.25 | 2.71 | 1.86 | 2.53 | 5.63 | 7.55 | 4.09 | 5.90 | 4.61 | 4.19 | 6.30 | 2.78 | 4.11 |
| 1971 | 3.15 | 2.16 | 2.86 | 3.28 | 3.53 | 2.48 | 8.11 | 5.24 | 3.34 | 3.63 | 4.98 | 2.44 | 3.78 |
| 1972 | 4.09 | 3.27 | 2.64 | 2.76 | 3.43 | 3.89 | 9.14 | 2.75 | 2.71 | 1.74 | 3.21 | 2.57 | 3.52 |
| 1973 | 0.97 | 0.92 | 1.53 | 2.06 | 2.81 | 2.65 | 4.52 | 6.77 | 4.57 | 2.93 | 2.74 | 2.58 | 2.94 |
| 1974 | 2.19 | 3.16 | 2.36 | 2.50 | 3.26 | 4.22 | 6.91 | 3.49 | 2.58 | 2.93 | 3.19 | 2.12 | 3.25 |
| 1975 | 1.74 | 2.45 | 2.52 | 2.07 | 4.65 | 6.46 | 3.60 | 6.58 | 3.85 | 6.32 | 5.26 | 6.07 | 4.31 |
| 1976 | 2.16 | 2.27 | 2.16 | 3.92 | 4.66 | 5.50 | 9.68 | 4.84 | 3.58 | 2.60 | 2.99 | 2.00 | 3.87 |
| Average | 2.02 | 1.88 | 1.85 | 2.59 | 3.69 | 5.75 | 7.19 | 5.52 | 3.06 | 3.26 | 4.29 | 3.76 | 3.75 |

Note: Figures underlined were estimated by a hydraulic analyses

(3) Gauging Station Catchment Area ($Km^2$)

Pte. Carretera (Rio Sate) 38.0

Unit: $m^3/sec$

| Year \ Month | Jan. | Feb. | Mar. | Apr. | May | Jun. | Jul. | Aug. | Sep. | Oct. | Nov. | Dec. | Average |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1961 | | | | | | | | | | | | | |
| 1962 | 1.17 | 1.29 | 1.45 | 1.08 | 1.46 | 1.60 | 0.87 | 0.73 | 0.53 | 0.93 | 1.60 | 2.65 | 1.28 |
| 1963 | 1.20 | 2.17 | 1.51 | 2.26 | 2.08 | 1.31 | 0.93 | 0.81 | 0.49 | 0.59 | 2.11 | 1.52 | 1.41 |
| 1964 | 1.29 | 0.91 | 0.69 | 1.41 | 1.40 | 1.90 | 1.16 | 0.97 | 0.87 | 1.20 | 1.88 | 2.23 | 1.33 |
| 1965 | 1.61 | 1.05 | 0.77 | 1.26 | 1.41 | 0.73 | 0.77 | 0.55 | 0.45 | 0.94 | 2.06 | 2.38 | 1.17 |
| 1966 | 1.27 | 0.76 | 0.80 | 0.88 | 1.29 | 1.08 | 1.02 | 0.76 | 0.59 | 1.12 | 2.27 | 6.01 | 1.53 |
| 1967 | 1.94 | 1.98 | 1.86 | 1.31 | 1.36 | 1.59 | 1.20 | 0.91 | 0.50 | 0.76 | 2.44 | 1.63 | 1.45 |
| 1968 | 1.15 | 1.55 | 1.34 | 1.76 | 1.25 | 1.32 | 1.36 | 0.74 | 0.68 | 1.48 | 2.01 | 1.58 | 1.35 |
| 1969 | 1.25 | 1.40 | 0.87 | 2.06 | 1.79 | 1.26 | 0.92 | 0.61 | 0.47 | 1.60 | 1.92 | 1.74 | 1.32 |
| 1970 | 1.10 | 1.76 | 1.96 | 1.04 | 0.76 | 0.34 | 0.26 | 0.29 | 0.26 | 0.44 | 1.40 | 1.26 | 0.90 |
| 1971 | 1.85 | 1.68 | 1.11 | 0.99 | 1.09 | 0.71 | 0.31 | 0.20 | 0.38 | 0.90 | 1.55 | 1.08 | 0.98 |
| 1972 | 1.20 | 0.84 | 0.67 | 0.73 | 0.70 | 0.47 | 0.34 | 0.26 | 0.21 | 0.24 | 0.49 | 0.77 | 0.58 |
| 1973 | 0.55 | 0.38 | 0.32 | 0.28 | 0.30 | 0.42 | 0.70 | 0.93 | 0.97 | 1.17 | 1.63 | 1.77 | 0.79 |
| 1974 | 1.26 | 1.44 | 1.28 | 0.79 | 0.46 | 0.28 | 0.25 | 0.23 | 0.24 | 0.65 | 1.22 | 1.47 | 0.79 |
| 1975 | 0.97 | 1.24 | 0.91 | 0.65 | 1.23 | 0.76 | 0.74 | 0.39 | 0.38 | 0.50 | 1.74 | 2.47 | 1.00 |
| 1976 | 1.64 | 0.99 | 1.74 | 2.04 | 1.09 | 0.60 | 0.31 | 0.54 | 0.19 | 0.45 | 0.64 | 1.05 | 0.94 |
| Average | 1.30 | 1.30 | 1.15 | 1.24 | 1.18 | 0.96 | 0.74 | 0.59 | 0.48 | 0.86 | 1.66 | 1.97 | 1.12 |

Note: Figures under line were estimated by a hydraulic analyses

(4) Gauging Station Catchment Area ($Km^2$)

Palace 204.0

Unit: $m^3/sec$

| Year \ Month | Jan. | Feb. | Mar. | Apr. | May | Jun. | Jul. | Aug. | Sep. | Oct. | Nov. | Dec. | Average |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1974 | 7.64 | 10.15 | 9.92 | 7.69 | 8.71 | 6.04 | 9.37 | 7.79 | 6.29 | 7.54 | 8.11 | 6.35 | 7.97 |
| 1975 | 5.38 | 8.22 | 8.34 | 6.47 | 11.32 | 11.03 | 6.87 | 10.93 | 7.51 | 9.59 | 13.45 | 18.44 | 9.80 |
| Average | 6.51 | 9.19 | 9.13 | 7.08 | 10.02 | 8.54 | 8.12 | 9.36 | 6.90 | 8.57 | 10.78 | 12.40 | 8.89 |

(5) Gauging Station Catchment Area ($Km^2$)

Salvajina 3,830

Unit: $m^3/sec$

| Year \ Month | Jan. | Feb. | Mar. | Apr. | May | Jun. | Jul. | Aug. | Sep. | Oct. | Nov. | Dec. | Average |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1962 | 118.1 | 129.6 | 145.8 | 108.9 | 147.1 | 161.6 | 87.6 | 74.1 | 53.1 | 94.2 | 161.7 | 267.3 | 129.2 |
| 1963 | 121.1 | 218.4 | 152.4 | 227.7 | 209.3 | 132.1 | 93.9 | 82.2 | 49.4 | 59.7 | 213.1 | 153.0 | 141.9 |
| 1964 | 130.3 | 92.1 | 69.5 | 142.1 | 140.7 | 191.3 | 117.0 | 97.6 | 87.6 | 120.8 | 189.5 | 224.4 | 133.6 |
| 1965 | 162.5 | 106.0 | 77.8 | 126.5 | 141.6 | 74.1 | 77.4 | 55.4 | 45.0 | 94.9 | 207.9 | 239.7 | 117.5 |
| 1966 | 127.6 | 76.6 | 80.5 | 89.1 | 129.5 | 108.4 | 103.2 | 76.2 | 59.3 | 112.6 | 274.0 | 605.5 | 154.4 |
| 1967 | 195.3 | 199.0 | 187.9 | 132.3 | 137.4 | 160.0 | 120.6 | 91.9 | 50.2 | 76.9 | 246.1 | 164.1 | 146.4 |
| 1968 | 115.5 | 156.1 | 134.5 | 177.0 | 125.5 | 132.6 | 136.6 | 74.6 | 68.4 | 149.4 | 202.8 | 159.2 | 135.8 |
| 1969 | 126.3 | 141.4 | 88.3 | 207.2 | 180.2 | 126.6 | 92.5 | 61.7 | 47.1 | 161.0 | 194.0 | 175.3 | 133.3 |
| 1970 | 110.9 | 177.8 | 197.8 | 105.1 | 146.0 | 135.0 | 79.0 | 80.0 | 73.0 | 165.0 | 366.0 | 258.0 | 157.8 |
| 1971 | 310.0 | 235.0 | 229.0 | 238.0 | 212.0 | 137.0 | 123.0 | 83.0 | 86.0 | 137.0 | 216.0 | 180.0 | 182.2 |
| 1972 | 220.0 | 188.0 | 144.0 | 145.0 | 146.0 | 138.0 | 115.0 | 58.0 | 59.0 | 68.0 | 146.0 | 157.0 | 132.0 |
| 1973 | 71.0 | 50.0 | 53.0 | 81.0 | 104.0 | 111.0 | 107.0 | 122.0 | 150.0 | 197.0 | 288.0 | 287.0 | 135.1 |
| 1974 | 252.0 | 284.0 | 245.0 | 146.0 | 147.0 | 109.0 | 114.0 | 74.0 | 75.0 | 159.0 | 288.0 | 211.0 | 175.3 |
| 1975 | 126.0 | 188.0 | 188.0 | 131.0 | 185.0 | 145.0 | 141.0 | 109.0 | 110.0 | 156.0 | 307.0 | 398.0 | 182.0 |
| 1976 | 189.0 | 175.0 | 195.0 | 202.0 | 171.0 | 122.0 | 131.0 | 73.0 | 58.0 | 80.0 | 125.0 | 120.0 | 136.8 |
| Average | 158.4 | 154.1 | 145.9 | 150.6 | 154.8 | 132.2 | 109.3 | 80.8 | 71.4 | 122.1 | 228.3 | 240.0 | 146.2 |

## V-3 DAILY RUN-OFF

| | Gauging Station | Catchment Area ($Km^2$) | Recording Period |
|---|---|---|---|
| (1) | Julumito | 939.0 | Jan. 1962 - Dec. 1976 |
| (2) | Malvasa | 35.0 | Jan. 1962 - Dec. 1976 |
| (3) | Pte, Carretera | 38.0 | Jan. 1962 - Dec. 1976 |
| (4) | Salvajina | 3,830.0 | Jan. 1962 - Dec. 1970<br>Jan. 1975 - Dec. 1976 |
| (5) | Palace | 204.0 | Jan. 1974 - Dec. 1975 |

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STATION JULUMITO CATCHMENT AREA 939 KM**2 UNIT : M**3/SEC 1962-YEAR

| MDAYM | JAN. | FEB. | MAR. | APR. | MAY. | JUN. | JUL. | AUG. | SEP. | OCT. | NOV. | DEC. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 20.7 | 22.9 | 20.5 | 19.5 | 33.8 | 23.1 | 28.5 | 28.5 | 14.7 | 17.5 | 20.8 | 33.0 |
| 2 | 23.6 | 23.3 | 19.4 | 17.7 | 38.8 | 26.6 | 24.9 | 31.5 | 14.2 | 16.1 | 17.8 | 29.8 |
| 3 | 23.5 | 22.3 | 13.1 | 19.5 | 42.0 | 30.3 | 25.6 | 28.5 | 13.7 | 16.9 | 22.1 | 29.3 |
| 4 | 23.2 | 27.4 | 18.1 | 25.9 | 35.6 | 46.7 | 31.5 | 63.8 | 14.2 | 18.7 | 19.1 | 25.7 |
| 5 | 22.3 | 25.6 | 21.0 | 22.8 | 26.6 | 46.7 | 30.7 | 46.9 | 30.0 | 15.3 | 23.5 | 22.2 |
| 6 | 23.8 | 21.9 | 21.4 | 22.3 | 20.1 | 33.9 | 33.8 | 32.2 | 18.6 | 12.8 | 21.8 | 21.4 |
| 7 | 21.3 | 26.1 | 28.1 | 21.8 | 15.0 | 34.4 | 40.5 | 22.9 | 17.4 | 17.5 | 19.7 | 21.1 |
| 8 | 22.1 | 27.4 | 27.3 | 24.1 | 14.2 | 36.2 | 31.5 | 21.6 | 16.9 | 14.0 | 19.1 | 20.3 |
| 9 | 24.9 | 26.7 | 27.4 | 24.4 | 15.0 | 33.9 | 27.1 | 23.6 | 14.7 | 17.8 | 20.2 | 20.4 |
| 10 | 22.6 | 25.8 | 35.4 | 21.3 | 17.5 | 31.5 | 22.9 | 22.9 | 13.7 | 21.0 | 22.7 | 21.1 |
| 11 | 24.4 | 23.1 | 31.3 | 17.4 | 17.5 | 35.0 | 24.4 | 21.0 | 14.2 | 22.7 | 21.0 | 29.1 |
| 12 | 23.3 | 24.1 | 28.1 | 18.8 | 15.0 | 33.9 | 25.6 | 21.6 | 13.2 | 24.5 | 20.2 | 42.5 |
| 13 | 22.1 | 23.4 | 25.8 | 17.8 | 14.6 | 31.5 | 23.6 | 21.6 | 13.7 | 23.7 | 20.8 | 43.3 |
| 14 | 23.4 | 23.8 | 23.7 | 17.7 | 21.1 | 31.5 | 30.0 | 27.8 | 13.7 | 21.3 | 20.5 | 39.8 |
| 15 | 22.1 | 23.1 | 22.2 | 18.5 | 24.5 | 31.5 | 30.0 | 28.5 | 13.7 | 20.5 | 26.7 | 44.2 |
| 16 | 22.3 | 26.1 | 21.9 | 16.7 | 26.6 | 30.3 | 26.3 | 21.6 | 15.8 | 20.5 | 38.6 | 42.7 |
| 17 | 23.8 | 24.9 | 21.5 | 17.4 | 26.6 | 29.3 | 24.9 | 22.9 | 18.0 | 19.7 | 31.8 | 44.5 |
| 18 | 21.0 | 24.9 | 21.5 | 16.9 | 26.0 | 28.1 | 22.3 | 28.5 | 18.0 | 19.7 | 32.6 | 46.9 |
| 19 | 20.2 | 25.9 | 24.4 | 22.1 | 27.1 | 26.0 | 21.6 | 23.6 | 18.0 | 18.3 | 26.0 | 45.7 |
| 20 | 19.2 | 23.6 | 23.1 | 22.0 | 30.3 | 24.0 | 22.9 | 19.8 | 22.9 | 23.3 | 28.8 | 38.8 |
| 21 | 22.3 | 22.3 | 24.8 | 20.3 | 31.5 | 21.6 | 31.5 | 19.2 | 22.9 | 19.7 | 29.4 | 34.4 |
| 22 | 23.5 | 21.0 | 28.4 | 18.1 | 25.0 | 19.7 | 27.8 | 18.0 | 19.8 | 20.2 | 28.6 | 40.3 |
| 23 | 36.1 | 19.4 | 32.7 | 16.7 | 23.0 | 24.5 | 22.3 | 15.8 | 20.4 | 18.3 | 23.5 | 37.8 |
| 24 | 26.4 | 13.7 | 35.3 | 22.6 | 25.0 | 23.5 | 37.9 | 15.2 | 16.9 | 16.9 | 24.0 | 30.7 |
| 25 | 24.9 | 17.7 | 33.4 | 23.8 | 25.0 | 22.0 | 37.9 | 15.8 | 15.8 | 16.1 | 30.2 | 30.0 |
| 26 | 22.8 | 14.1 | 32.6 | 25.4 | 25.0 | 25.0 | 35.6 | 15.2 | 15.2 | 17.5 | 34.1 | 41.5 |
| 27 | 21.5 | 17.7 | 32.1 | 22.9 | 29.3 | 24.0 | 27.1 | 16.9 | 19.8 | 17.5 | 28.8 | 32.2 |
| 28 | 22.1 | 22.4 | 31.1 | 25.4 | 54.8 | 26.0 | 22.9 | 19.2 | 14.7 | 17.2 | 25.9 | 27.9 |
| 29 | 20.0 | | 28.1 | 31.3 | 35.0 | 24.1 | 19.8 | 18.5 | 20.4 | 19.1 | 27.2 | 27.4 |
| 30 | 19.5 | | 27.3 | 29.8 | 30.3 | 17.9 | 27.1 | 16.9 | 21.0 | 19.3 | 13.7 | 24.0 |
| 31 | 19.9 | | 24.9 | | 28.7 | | 40.5 | 14.2 | | 17.5 | | 20.7 |
| TOTAL | 703.6 | 675.1 | 910.9 | 639.9 | 820.5 | 871.7 | 979.3 | 744.2 | 516.2 | 580.1 | 741.2 | 1008.7 |
| AVERAGE | 22.6 | 24.1 | 26.2 | 21.3 | 26.5 | 29.1 | 28.4 | 24.0 | 17.2 | 18.7 | 24.7 | 32.5 |
| MAXIMUM | 36.1 | 29.8 | 35.4 | 31.3 | 54.8 | 46.7 | 40.5 | 63.8 | 30.0 | 24.5 | 38.6 | 46.9 |
| MINIMUM | 18.8 | 19.1 | 18.1 | 16.7 | 14.2 | 17.9 | 19.9 | 14.2 | 13.2 | 12.8 | 19.7 | 20.3 |

| ANNUAL | | | |
|---|---|---|---|
| TOTAL | AVERAGE | MAXIMUM | MINIMUM |
| 8989.4 | 24.6 | 63.8 | 12.8 |

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STATION JULUMITO CATCHMENT AREA 939 KM**2 UNIT : M**3/SEC 1963-YEAR

| MDAYM | JAN. | FEB. | MAR. | APR. | MAY. | JUN. | JUL. | AUG. | SEP. | OCT. | NOV. | DEC. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 23.9 | 24.8 | 27.2 | 29.2 | 35.9 | 19.4 | 36.0 | 33.4 | 13.7 | 12.0 | 28.1 | 23.6 |
| 2 | 23.3 | 29.1 | 25.6 | 27.2 | 41.5 | 19.2 | 36.4 | 35.3 | 14.5 | 10.9 | 30.6 | 24.0 |
| 3 | 23.9 | 29.4 | 26.7 | 33.3 | 36.5 | 19.2 | 36.8 | 28.8 | 14.2 | 9.7 | 33.7 | 24.3 |
| 4 | 21.9 | 33.5 | 23.8 | 46.2 | 34.6 | 19.2 | 32.3 | 25.4 | 13.7 | 9.4 | 34.5 | 27.4 |
| 5 | 23.3 | 37.1 | 22.1 | 40.4 | 36.5 | 18.4 | 29.5 | 22.8 | 13.7 | 9.1 | 33.4 | 29.1 |
| 6 | 22.3 | 31.4 | 20.8 | 42.5 | 40.9 | 17.7 | 29.5 | 24.7 | 13.7 | 9.1 | 31.2 | 25.3 |
| 7 | 23.9 | 31.3 | 32.8 | 43.1 | 39.2 | 20.4 | 27.4 | 52.2 | 13.7 | 9.4 | 29.4 | 23.6 |
| 8 | 22.8 | 31.5 | 27.9 | 37.1 | 45.3 | 17.9 | 25.7 | 57.6 | 16.6 | 8.9 | 30.4 | 26.3 |
| 9 | 23.8 | 24.7 | 31.1 | 31.5 | 52.0 | 13.2 | 25.4 | 33.8 | 19.2 | 9.6 | 24.3 | 25.6 |
| 10 | 21.4 | 31.7 | 21.1 | 35.8 | 57.1 | 23.1 | 25.4 | 24.1 | 17.2 | 8.8 | 22.9 | 26.2 |
| 11 | 22.1 | 37.3 | 26.1 | 36.1 | 66.2 | 24.2 | 42.4 | 20.7 | 19.8 | 12.8 | 43.1 | 24.3 |
| 12 | 23.3 | 39.6 | 34.7 | 35.3 | 56.8 | 31.2 | 36.3 | 21.0 | 22.2 | 12.3 | 40.6 | 22.7 |
| 13 | 22.4 | 36.6 | 26.6 | 39.1 | 50.1 | 31.7 | 33.4 | 22.8 | 26.7 | 19.3 | 30.0 | 23.8 |
| 14 | 22.8 | 30.7 | 25.3 | 36.8 | 45.9 | 63.5 | 24.1 | 23.1 | 22.5 | 14.7 | 35.0 | 24.9 |
| 15 | 23.1 | 30.0 | 33.8 | 36.8 | 35.1 | 39.2 | 26.3 | 28.1 | 19.8 | 12.8 | 28.9 | 22.8 |
| 16 | 23.7 | 23.8 | 29.2 | 38.9 | 46.2 | 31.4 | 25.0 | 32.7 | 18.9 | 12.0 | 27.8 | 21.7 |
| 17 | 20.3 | 26.9 | 27.1 | 37.8 | 39.2 | 27.8 | 25.4 | 45.7 | 17.2 | 11.1 | 27.2 | 24.3 |
| 18 | 24.9 | 40.6 | 24.9 | 31.1 | 36.7 | 29.2 | 24.7 | 48.6 | 12.2 | 10.5 | 31.4 | 25.6 |
| 19 | 21.5 | 45.9 | 27.1 | 30.8 | 39.4 | 26.6 | 23.5 | 29.8 | 12.6 | 9.7 | 27.0 | 23.6 |
| 20 | 22.4 | 41.5 | 25.4 | 49.4 | 32.8 | 26.1 | 21.6 | 23.5 | 13.2 | 10.3 | 22.7 | 23.6 |
| 21 | 23.1 | 35.0 | 24.3 | 42.4 | 30.5 | 22.2 | 21.9 | 21.3 | 11.7 | 11.1 | 24.9 | 22.1 |
| 22 | 23.7 | 41.0 | 23.6 | 35.9 | 29.0 | 19.0 | 23.9 | 19.5 | 12.0 | 12.6 | 27.4 | 21.2 |
| 23 | 22.1 | 41.4 | 24.3 | 33.5 | 27.8 | 17.2 | 31.0 | 17.8 | 19.5 | 11.9 | 36.7 | 21.1 |
| 24 | 21.3 | 45.5 | 30.6 | 34.2 | 26.1 | 17.2 | 30.4 | 16.9 | 16.6 | 17.1 | 28.1 | 20.4 |
| 25 | 23.8 | 41.0 | 26.7 | 36.1 | 26.3 | 22.9 | 41.6 | 16.6 | 15.8 | 12.5 | 28.6 | 21.3 |
| 26 | 23.9 | 37.0 | 33.2 | 33.2 | 26.0 | 23.0 | 35.3 | 16.1 | 12.5 | 17.4 | 25.4 | 27.5 |
| 27 | 29.3 | 33.0 | 31.0 | 31.7 | 25.6 | 17.6 | 37.2 | 18.3 | 12.6 | 17.4 | 25.3 | 26.7 |
| 28 | 21.8 | 33.0 | 28.1 | 30.6 | 24.0 | 15.8 | 32.3 | 19.2 | 12.5 | 20.6 | 24.3 | 24.6 |
| 29 | 27.4 | | 26.2 | 31.8 | 22.2 | 15.4 | 35.5 | 16.9 | 15.3 | 21.4 | 24.2 | 24.2 |
| 30 | 27.9 | | 27.1 | 32.2 | 20.7 | 18.6 | 28.8 | 14.5 | 15.8 | 22.1 | 24.0 | 27.5 |
| 31 | 23.1 | | 24.1 | | 19.8 | | 29.8 | 14.0 | | 26.8 | | 34.6 |
| TOTAL | 716.6 | 972.3 | 843.3 | 1374.5 | 1167.9 | 713.5 | 943.1 | 825.2 | 479.6 | 413.3 | 881.1 | 763.9 |
| AVERAGE | 23.1 | 34.7 | 27.1 | 35.8 | 37.7 | 23.8 | 30.4 | 26.6 | 16.0 | 13.3 | 29.4 | 24.6 |
| MAXIMUM | 29.3 | 45.9 | 34.7 | 49.4 | 66.2 | 63.5 | 42.4 | 57.6 | 26.7 | 26.8 | 43.1 | 34.6 |
| MINIMUM | 20.3 | 26.8 | 20.8 | 27.2 | 19.8 | 15.4 | 21.6 | 14.0 | 11.7 | 8.8 | 22. | 20.4 |

| ANNUAL | | | |
|---|---|---|---|
| TOTAL | AVERAGE | MAXIMUM | MINIMUM |
| 9791.0 | 26.8 | 66.2 | 8.8 |

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[illegible] CATCHMENT AREA 939 KM**2 UNIT : M**3/SEC 1964-YEAR

| 4DAYS | JAN. | FEB. | MAR. | APR. | MAY. | JUN. | JUL. | AUG. | SEP. | OCT. | NOV. | DEC. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 19.4 | 16.7 | 27.8 | 14.5 | 17.4 | 17.0 | 21.8 | 21.6 | 19.4 | 17.8 | 22.9 | 21.6 |
| 2 | 19.9 | 15.3 | 20.5 | 13.6 | 17.2 | 20.2 | 13.0 | 24.7 | 20.3 | 17.7 | 20.1 | 15.5 |
| 3 | 17.3 | 15.8 | 23.7 | 13.3 | 18.2 | 21.4 | 20.0 | 30.4 | 36.1 | 19.7 | 24.5 | 13.1 |
| 4 | 17.5 | 15.5 | 19.5 | 16.4 | 15.3 | 25.5 | 31.6 | 36.0 | 48.0 | 24.5 | 18.5 | 18.8 |
| 5 | 16.1 | 13.1 | 14.6 | 19.9 | 16.7 | 24.2 | 33.1 | 30.6 | 24.1 | 30.9 | 21.8 | 47.5 |
| 6 | 27.1 | 15.0 | 17.7 | 15.8 | 16.9 | 23.9 | 19.9 | 35.3 | 23.1 | 60.7 | 37.5 | 46.1 |
| 7 | 27.9 | 14.7 | 17.4 | 15.0 | 15.7 | 23.9 | 13.6 | 33.4 | 21.8 | 53.1 | 35.0 | 30.4 |
| 8 | 27.7 | 13.3 | 16.9 | 14.5 | 15.2 | 19.5 | 19.8 | 36.9 | 24.1 | 50.5 | 21.8 | 18.0 |
| 9 | 25.6 | 15.9 | 16.4 | 15.8 | 16.4 | 20.0 | 25.7 | 29.8 | 20.0 | 40.2 | 13.9 | 13.6 |
| 10 | 24.1 | 14.7 | 15.9 | 25.3 | 19.9 | 21.6 | 31.7 | 25.8 | 21.6 | 37.6 | 15.3 | 28.7 |
| 11 | 23.0 | 14.6 | 15.9 | 21.4 | 17.0 | 19.1 | 32.0 | 37.5 | 19.0 | 29.1 | 17.9 | 22.6 |
| 12 | 23.3 | 14.3 | 15.1 | 20.5 | 15.4 | 13.8 | 27.3 | 57.9 | 17.8 | 24.5 | 22.3 | 28.5 |
| 13 | 25.9 | 13.4 | 14.8 | 26.4 | 25.1 | 18.1 | 29.9 | 63.7 | 27.7 | 22.4 | 26.6 | 24.4 |
| 14 | 25.1 | 13.7 | 13.9 | 27.6 | 30.5 | 17.1 | 23.4 | 51.3 | 28.6 | 20.3 | 17.8 | 15.2 |
| 15 | 24.1 | 13.9 | 17.0 | 28.8 | 24.8 | 21.1 | 23.3 | 60.8 | 20.7 | 18.2 | 14.5 | 38.2 |
| 16 | 27.4 | 15.7 | 15.6 | 24.3 | 19.4 | 13.9 | 17.6 | 53.0 | 20.8 | 16.7 | 16.3 | 15.6 |
| 17 | 27.6 | 13.0 | 13.7 | 27.4 | 16.6 | 17.6 | 14.3 | 49.2 | 18.2 | 20.8 | 23.0 | 29.8 |
| 18 | 21.7 | 13.5 | 14.1 | 25.6 | 23.5 | 22.3 | 14.2 | 45.9 | 17.9 | 38.8 | 35.6 | 71.2 |
| 19 | 1[illegible].9 | 21.3 | 15.0 | 16.5 | 25.1 | 30.8 | 13.2 | 43.2 | 23.9 | 75.3 | 30.5 | 44.7 |
| 20 | 19.4 | 31.0 | 15.1 | 16.7 | 21.0 | 26.5 | 14.1 | 42.9 | 22.0 | 68.7 | 28.3 | 35.7 |
| 21 | 1[illegible].6 | 28.9 | 14.5 | 16.4 | 17.3 | 30.9 | 17.7 | 47.6 | 18.2 | 43.9 | 21.6 | 46.9 |
| 22 | 18.1 | 25.4 | 14.3 | 15.8 | 17.1 | 31.4 | 16.8 | 46.1 | 20.3 | 19.4 | 14.2 | 35.7 |
| 23 | 13.0 | 23.8 | 13.4 | 15.5 | 20.6 | 27.9 | 19.5 | 49.0 | 18.4 | 19.6 | 19.4 | 38.9 |
| 24 | 14.3 | 19.7 | 17.9 | 16.6 | 21.0 | 26.1 | 19.6 | 52.7 | 18.4 | 16.5 | 17.7 | 32.1 |
| 25 | 14.1 | 13.2 | 13.8 | 14.9 | 17.1 | 23.9 | 19.5 | 41.4 | 33.4 | 16.0 | 15.1 | 14.3 |
| 26 | 14.2 | 27.9 | 13.4 | 30.9 | 17.4 | 23.7 | 21.6 | 40.3 | 33.8 | 15.3 | 14.1 | 51.3 |
| 27 | 17.8 | 29.5 | 13.1 | 26.1 | 16.2 | 23.9 | 20.5 | 40.3 | 20.2 | 16.4 | 16.8 | 45.0 |
| 28 | 17.5 | 21.7 | 13.1 | 20.1 | 17.4 | 22.2 | 32.7 | 34.4 | 19.4 | 15.4 | 23.8 | 50.8 |
| 29 | 23.7 | 24.4 | 13.6 | 16.8 | 16.2 | 19.9 | 33.1 | 29.4 | 18.9 | 47.3 | 31.6 | 55.4 |
| 30 | 18.5 | | 14.3 | 17.4 | 16.6 | 22.5 | 18.3 | 27.1 | 17.9 | 40.3 | 25.7 | 32.0 |
| 31 | 17.3 | | 18.3 | | 19.1 | | 17.7 | 22.5 | | 26.1 | | 18.7 |
| TOTAL | 744.9 | 466.0 | 463.3 | 615.5 | 594.7 | 673.1 | 705.9 | 1241.6 | 694.4 | 963.7 | 661.1 | 999.5 |
| AVERAGE | 24.0 | 16.8 | 15.6 | 20.5 | 19.2 | 22.4 | 22.8 | 40.1 | 23.1 | 31.1 | 22.0 | 32.2 |
| MAXIMUM | 39.1 | 31.3 | 22.3 | 31.9 | 33.5 | 31.9 | 33.1 | 63.7 | 45.0 | 75.3 | 37.5 | 71.2 |
| MINIMUM | 17.3 | 11.7 | 12.3 | 14.1 | 15.2 | 17.0 | 16.8 | 21.6 | 17.8 | 15.3 | 13.9 | 13.1 |

| ANNUAL | | | |
|---|---|---|---|
| TOTAL | AVERAGE | MAXIMUM | MINIMUM |
| 8922.3 | 24.4 | 75.3 | 12.0 |

1979/ 7/18 ( WED ) 14:11:40

[illegible] CATCHMENT AREA 939 KM**2 UNIT : M**3/SEC 1965-YEAR

| 4DAYS | JAN. | FEB. | MAR. | APR. | MAY. | JUN. | JUL. | AUG. | SEP. | OCT. | NOV. | DEC. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 17.7 | 1[illegible] | 45.1 | 16.9 | 48.3 | 33.0 | 15.3 | 19.4 | 18.4 | 13.7 | 16.4 | 37.6 |
| 2 | 11.9 | 15.[illegible] | 33.5 | 17.5 | 46.7 | 27.3 | 17.4 | 19.3 | 16.7 | 13.7 | 23.5 | 24.7 |
| 3 | 37.4 | 14.9 | 23.3 | 15.1 | 52.2 | 25.1 | 18.9 | 16.5 | 24.3 | 13.6 | 17.4 | 18.5 |
| 4 | 25.3 | 11.4 | 14.3 | 14.6 | 52.0 | 24.5 | 35.7 | 14.9 | 19.9 | 13.0 | 37.8 | 29.3 |
| 5 | 1[illegible].5 | 23.5 | 14.9 | 17.5 | 38.5 | 23.7 | 31.8 | 22.2 | 16.3 | 13.7 | 18.1 | 26.4 |
| 6 | 1[illegible].7 | 23.9 | 15.7 | 17.4 | 36.3 | 17.0 | 23.5 | 20.7 | 16.5 | 16.3 | 31.1 | 27.8 |
| 7 | 15.5 | 21.6 | 20.2 | 24.5 | 25.9 | 16.0 | 26.7 | 44.0 | 18.9 | 18.6 | 32.0 | 35.7 |
| 8 | 13.3 | 15.3 | 24.8 | 17.6 | 26.1 | 19.1 | 36.9 | 53.8 | 15.1 | 14.2 | 18.7 | 45.6 |
| 9 | 17.[illegible] | 43.4 | 23.7 | 16.7 | 28.2 | 41.9 | 29.2 | 38.2 | 19.6 | 14.3 | 45.9 | 26.0 |
| 10 | 1[illegible].3 | 37.5 | 19.5 | 17.3 | 43.7 | 23.6 | 21.6 | 27.6 | 20.1 | 15.7 | 22.2 | 34.9 |
| 11 | 1[illegible].5 | 41.7 | 23.1 | 19.6 | 44.0 | 23.1 | 13.3 | 19.5 | 16.1 | 12.5 | 16.0 | 20.1 |
| 12 | 1[illegible].3 | 44.3 | 19.1 | 16.8 | 38.8 | 22.0 | 14.1 | 19.5 | 16.2 | 13.3 | 55.9 | 27.1 |
| 13 | 1[illegible].4 | 33.2 | 12.3 | 17.5 | 46.8 | 21.3 | 12.8 | 20.2 | 23.4 | 14.0 | 43.5 | 23.5 |
| 14 | 23.1 | 24.1 | 14.4 | 21.5 | 50.4 | 15.9 | 25.2 | 24.1 | 19.9 | 14.7 | 28.7 | 18.7 |
| 15 | 3.4 | 15.4 | 14.0 | 27.6 | 45.3 | 15.4 | 23.0 | 14.4 | 19.3 | 15.3 | 30.4 | 27.7 |
| 16 | 1[illegible].8 | 15.3 | 16.5 | 21.9 | 41.4 | 32.3 | 13.0 | 24.7 | 14.5 | 15.9 | 45.7 | 27.9 |
| 17 | 17.4 | 13.6 | 19.1 | 31.1 | 37.6 | 48.9 | 15.3 | 62.1 | 12.9 | 17.1 | 64.8 | 25.6 |
| 18 | 17.7 | 15.4 | 17.1 | 29.2 | 35.9 | 45.7 | 54.3 | 52.8 | 12.6 | 41.0 | 40.2 | 25.3 |
| 19 | 48.1 | 16.1 | 13.9 | 18.9 | 29.3 | 42.4 | 44.5 | 42.5 | 23.2 | 31.5 | 39.7 | 21.8 |
| 20 | 40.1 | 17.5 | 12.2 | 44.2 | 24.1 | 60.4 | 26.1 | 38.3 | 17.7 | 23.1 | 57.7 | 22.6 |
| 21 | 33.5 | 21.3 | 13.2 | 37.4 | 27.5 | 43.6 | 44.8 | 26.1 | 19.6 | 18.4 | 42.2 | 23.7 |
| 22 | 44.9 | 17.4 | 12.6 | 54.8 | 25.6 | 34.7 | 37.5 | 23.0 | 16.3 | 15.9 | 34.2 | 21.6 |
| 23 | 35.3 | 23.8 | 13.1 | 46.7 | 25.2 | 34.5 | 26.9 | 19.0 | 14.3 | 25.4 | 48.1 | 18.7 |
| 24 | 2[illegible] | 23.3 | 12.8 | 37.3 | 17.7 | 35.6 | 27.8 | 15.9 | 12.2 | 28.5 | 27.1 | 33.3 |
| 25 | 53.4 | 35.8 | 16.5 | 34.0 | 29.7 | 31.5 | 17.5 | 14.0 | 13.7 | 47.6 | 43.7 | 28.9 |
| 26 | 31.7 | 29.4 | 16.1 | 22.3 | 31.9 | 26.1 | 25.9 | 13.7 | 14.8 | 20.7 | 47.3 | 20.1 |
| 27 | 42.9 | 41.2 | 16.5 | 20.6 | 29.3 | 22.5 | 24.8 | 22.3 | 12.3 | 16.5 | 64.3 | 20.5 |
| 28 | 14.2 | 33.2 | 17.1 | 18.8 | 24.7 | 23.3 | 23.4 | 15.8 | 11.6 | 16.0 | 51.7 | 21.3 |
| 29 | 27.9 | | 17.7 | 19.4 | 26.6 | 19.0 | 17.5 | 13.3 | 15.4 | 13.3 | 43.2 | 21.0 |
| 30 | 17.6 | | 17.2 | 49.2 | 27.0 | 17.4 | 23.9 | 18.3 | 15.0 | 12.7 | 48.4 | 21.8 |
| 31 | 23.7 | | 14.5 | | 25.8 | | 13.7 | 20.9 | | 14.1 | | 20.8 |
| TOTAL | 736.7 | 475.4 | 567.0 | 503.9 | 1091.7 | 839.8 | 778.9 | 621.4 | 504.2 | 574.3 | 1131.2 | 798.5 |
| AVERAGE | 23.7 | 31.3 | 15.1 | 26.8 | 35.2 | 28.7 | 25.1 | 26.5 | 16.8 | 18.5 | 37.7 | 25.8 |
| MAXIMUM | 53.4 | 75.8 | 45.1 | 64.2 | 52.2 | 60.4 | 54.3 | 44.0 | 24.7 | 47.6 | 64.3 | 45.6 |
| MINIMUM | 11.4 | 11.3 | 12.2 | 14.6 | 17.7 | 15.4 | 12.8 | 13.3 | 11.6 | 12.5 | 16.0 | 18.5 |

| ANNUAL | | | |
|---|---|---|---|
| TOTAL | AVERAGE | MAXIMUM | MINIMUM |
| 9537.3 | 26.1 | 76.8 | 11.4 |

1979/ 7/18 ( WED ) 14:11:40

STATION JULUMITO CATCHMENT AREA 939 KM**2 UNIT : M**3/SEC 1966-YEAR

| *DAY* | JAN. | FEB. | MAR. | APR. | MAY. | JUN. | JUL. | AUG. | SEP. | OCT. | NOV. | DEC. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 27.2 | 15.9 | 13.9 | 25.3 | 15.7 | 23.6 | 58.7 | 22.4 | 15.2 | 29.5 | 16.3 | 41.8 |
| 2 | 23.3 | 13.7 | 14.0 | 22.4 | 16.7 | 19.1 | 44.2 | 24.5 | 16.0 | 26.9 | 14.9 | 40.4 |
| 3 | 21.9 | 15.5 | 13.9 | 46.2 | 17.5 | 18.3 | 25.0 | 17.6 | 14.1 | 28.0 | 17.0 | 39.9 |
| 4 | 17.9 | 12.9 | 14.6 | 34.6 | 15.5 | 16.5 | 19.4 | 14.9 | 14.6 | 18.2 | 25.0 | 50.8 |
| 5 | 17.2 | 14.2 | 12.8 | 33.2 | 15.6 | 18.7 | 19.5 | 20.0 | 14.7 | 14.7 | 15.5 | 54.2 |
| 6 | 17.9 | 16.4 | 15.9 | 15.3 | 14.6 | 18.9 | 29.8 | 24.5 | 17.6 | 16.9 | 16.3 | 52.9 |
| 7 | 23.3 | 14.5 | 17.6 | 14.7 | 15.8 | 17.8 | 20.1 | 24.4 | 14.4 | 18.9 | 32.6 | 51.0 |
| 8 | 18.6 | 13.2 | 16.4 | 17.7 | 15.2 | 14.5 | 21.0 | 20.0 | 15.2 | 14.0 | 23.7 | 53.2 |
| 9 | 17.8 | 22.7 | 21.7 | 15.7 | 17.5 | 14.6 | 21.9 | 26.5 | 21.7 | 15.3 | 35.0 | 59.9 |
| 10 | 19.8 | 21.6 | 50.1 | 36.0 | 22.0 | 26.5 | 22.7 | 19.9 | 27.3 | 19.2 | 21.9 | 52.6 |
| 11 | 16.7 | 19.5 | 26.3 | 23.1 | 23.6 | 25.7 | 21.6 | 18.4 | 19.7 | 20.4 | 27.2 | 51.3 |
| 12 | 13.2 | 15.4 | 29.5 | 17.3 | 19.5 | 23.1 | 28.4 | 17.1 | 17.2 | 16.4 | 24.7 | 50.2 |
| 13 | 13.9 | 14.2 | 23.7 | 16.0 | 17.5 | 18.8 | 24.6 | 19.8 | 25.2 | 18.7 | 37.7 | 56.0 |
| 14 | 16.2 | 15.9 | 50.0 | 18.3 | 21.2 | 20.2 | 25.8 | 24.3 | 22.4 | 17.9 | 51.1 | 58.0 |
| 15 | 12.8 | 14.1 | 36.6 | 22.0 | 15.7 | 14.0 | 29.0 | 23.7 | 19.2 | 16.7 | 52.7 | 54.0 |
| 16 | 14.3 | 13.7 | 16.9 | 21.4 | 15.2 | 14.0 | 22.8 | 20.0 | 16.5 | 17.2 | 57.0 | 61.6 |
| 17 | 18.6 | 13.8 | 21.9 | 16.9 | 17.4 | 15.0 | 19.2 | 18.2 | 15.5 | 16.5 | 36.5 | 62.9 |
| 18 | 13.4 | 16.2 | 19.6 | 20.7 | 16.1 | 18.9 | 23.3 | 19.4 | 18.2 | 17.6 | 44.8 | 61.2 |
| 19 | 22.2 | 13.5 | 20.0 | 29.1 | 17.3 | 20.1 | 17.3 | 17.2 | 16.1 | 15.9 | 31.8 | 63.9 |
| 20 | 19.9 | 12.4 | 24.8 | 24.3 | 15.4 | 17.3 | 16.6 | 24.5 | 17.3 | 23.6 | 27.7 | 60.8 |
| 21 | 17.5 | 13.7 | 24.7 | 23.2 | 17.8 | 16.8 | 23.7 | 23.0 | 15.3 | 18.4 | 27.6 | 59.5 |
| 22 | 13.1 | 12.4 | 33.6 | 21.9 | 23.6 | 15.7 | 20.7 | 18.2 | 15.4 | 23.4 | 23.2 | 56.9 |
| 23 | 14.6 | 17.5 | 21.2 | 21.4 | 18.5 | 18.9 | 16.6 | 21.4 | 14.6 | 24.2 | 24.5 | 54.1 |
| 24 | 18.6 | 12.6 | 18.9 | 24.2 | 15.9 | 13.2 | 16.5 | 22.4 | 18.7 | 21.3 | 29.9 | 50.0 |
| 25 | 15.6 | 13.6 | 43.3 | 19.3 | 20.3 | 28.3 | 30.3 | 21.7 | 23.4 | 19.7 | 28.2 | 47.9 |
| 26 | 23.2 | 17.5 | 25.2 | 17.2 | 18.1 | 19.6 | 35.0 | 21.8 | 18.2 | 20.7 | 33.2 | 44.4 |
| 27 | 17.4 | 16.8 | 21.2 | 15.9 | 17.4 | 17.0 | 28.8 | 23.9 | 14.7 | 18.6 | 32.7 | 42.7 |
| 28 | 16.9 | 13.7 | 19.6 | 17.4 | 16.6 | 17.6 | 22.6 | 17.4 | 14.0 | 17.5 | 28.8 | 40.9 |
| 29 | 14.4 | | 39.5 | 16.8 | 20.7 | 16.7 | 16.9 | 15.4 | 14.0 | 17.4 | 60.0 | 39.7 |
| 30 | 18.5 | | 19.8 | 20.5 | 20.6 | 23.3 | 22.2 | 14.6 | 15.7 | 16.3 | 45.4 | 38.1 |
| 31 | 14.1 | | 18.3 | | 18.3 | | 20.0 | 15.0 | | 16.9 | | 37.2 |
| TOTAL | 549.7 | 435.1 | 742.5 | 667.7 | 554.8 | 583.0 | 764.2 | 634.1 | 522.1 | 596.9 | 942.9 | 1590.0 |
| AVERAGE | 17.7 | 15.5 | 24.0 | 22.3 | 17.9 | 19.4 | 24.7 | 20.5 | 17.4 | 19.3 | 31.4 | 51.3 |
| MAXIMUM | 23.3 | 22.7 | 50.1 | 46.2 | 23.6 | 33.2 | 58.7 | 26.5 | 27.3 | 29.5 | 60.0 | 63.9 |
| MINIMUM | 12.8 | 12.4 | 12.8 | 14.7 | 14.6 | 14.0 | 16.5 | 14.6 | 14.0 | 14.0 | 14.9 | 37.2 |

| ANNUAL | | | |
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| TOTAL | AVERAGE | MAXIMUM | MINIMUM |
| 8583.0 | 23.5 | 63.9 | 12.4 |

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STATION JULUMITO CATCHMENT AREA 939 KM**2 UNIT : M**3/SEC 1967-YEAR

| *DAY* | JAN. | FEB. | MAR. | APR. | MAY. | JUN. | JUL. | AUG. | SEP. | OCT. | NOV. | DEC. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 44.0 | 29.7 | 29.0 | 33.9 | 18.7 | 20.9 | 37.5 | 30.7 | 22.0 | 12.5 | 26.2 | 30.5 |
| 2 | 43.6 | 28.9 | 28.2 | 28.9 | 18.5 | 23.9 | 61.7 | 36.7 | 18.8 | 14.4 | 24.3 | 29.2 |
| 3 | 41.4 | 33.4 | 27.1 | 29.9 | 18.8 | 24.1 | 64.7 | 46.9 | 17.4 | 14.6 | 27.1 | 28.6 |
| 4 | 38.9 | 37.0 | 27.4 | 28.3 | 20.0 | 28.3 | 51.7 | 51.6 | 16.3 | 12.6 | 24.0 | 27.0 |
| 5 | 38.1 | 34.4 | 25.6 | 25.3 | 16.4 | 44.1 | 38.6 | 36.0 | 16.8 | 11.7 | 25.2 | 25.7 |
| 6 | 37.1 | 33.3 | 26.2 | 24.5 | 14.7 | 27.9 | 40.1 | 28.0 | 19.3 | 11.2 | 21.9 | 25.7 |
| 7 | 35.3 | 19.7 | 25.5 | 24.3 | 14.9 | 22.4 | 47.3 | 32.0 | 16.8 | 10.7 | 21.7 | 25.0 |
| 8 | 33.2 | 37.6 | 25.3 | 23.7 | 17.4 | 20.8 | 40.5 | 42.1 | 15.2 | 10.4 | 24.9 | 25.7 |
| 9 | 32.5 | 35.4 | 27.9 | 22.9 | 17.6 | 27.1 | 34.2 | 38.3 | 15.5 | 12.9 | 25.6 | 24.8 |
| 10 | 31.5 | 35.7 | 24.8 | 22.3 | 17.0 | 26.7 | 33.3 | 28.0 | 16.6 | 21.1 | 23.6 | 23.0 |
| 11 | 31.1 | 34.9 | 25.9 | 21.6 | 17.4 | 21.7 | 28.0 | 24.8 | 16.6 | 17.8 | 21.3 | 24.6 |
| 12 | 30.8 | 32.7 | 38.3 | 21.5 | 16.8 | 18.9 | 32.4 | 24.1 | 17.4 | 16.4 | 27.6 | 27.0 |
| 13 | 31.5 | 34.4 | 28.7 | 20.7 | 15.0 | 19.5 | 28.6 | 22.0 | 16.6 | 14.5 | 34.4 | 23.7 |
| 14 | 30.4 | 31.5 | 31.9 | 22.1 | 15.1 | 25.1 | 30.7 | 20.2 | 17.7 | 13.4 | 31.2 | 22.5 |
| 15 | 31.8 | 29.5 | 29.5 | 21.5 | 19.4 | 23.4 | 34.9 | 22.0 | 14.5 | 12.9 | 27.1 | 22.8 |
| 16 | 31.1 | 33.4 | 41.8 | 23.6 | 25.8 | 20.3 | 33.1 | 39.4 | 14.2 | 12.4 | 26.3 | 22.3 |
| 17 | 33.4 | 31.5 | 47.1 | 24.2 | 24.9 | 21.5 | 33.3 | 41.3 | 14.5 | 11.9 | 27.3 | 24.0 |
| 18 | 29.8 | 23.5 | 36.7 | 25.6 | 24.0 | 19.1 | 28.0 | 33.5 | 14.2 | 13.0 | 31.1 | 23.8 |
| 19 | 30.4 | 26.7 | 33.9 | 26.7 | 20.4 | 19.6 | 28.0 | 27.0 | 14.5 | 14.9 | 33.5 | 21.3 |
| 20 | 30.8 | 26.1 | 31.0 | 22.7 | 16.9 | 23.6 | 27.7 | 22.3 | 16.0 | 13.6 | 44.5 | 21.8 |
| 21 | 28.1 | 29.0 | 30.2 | 21.5 | 19.4 | 30.6 | 29.0 | 21.4 | 14.7 | 14.8 | 51.6 | 22.5 |
| 22 | 27.4 | 31.9 | 27.9 | 21.5 | 22.2 | 44.9 | 29.6 | 30.7 | 13.4 | 14.8 | 43.6 | 21.8 |
| 23 | 29.4 | 31.9 | 27.2 | 25.9 | 21.8 | 51.5 | 33.5 | 31.4 | 13.0 | 15.2 | 35.7 | 22.3 |
| 24 | 29.4 | 39.2 | 27.1 | 25.9 | 16.5 | 51.5 | 33.8 | 29.6 | 12.4 | 19.8 | 37.0 | 28.7 |
| 25 | 27.8 | 31.7 | 28.0 | 25.4 | 22.6 | 52.1 | 32.3 | 26.7 | 13.0 | 17.4 | 38.6 | 28.9 |
| 26 | 28.8 | 37.5 | 25.6 | 18.1 | 25.2 | 43.4 | 42.5 | 23.8 | 13.2 | 23.5 | 37.4 | 26.7 |
| 27 | 27.7 | 33.4 | 29.9 | 20.2 | 26.0 | 48.2 | 47.3 | 21.1 | 14.2 | 21.0 | 36.8 | 29.9 |
| 28 | 28.0 | 33.7 | 27.6 | 19.4 | 23.7 | 57.0 | 54.6 | 19.3 | 22.9 | 22.3 | 40.0 | 31.3 |
| 29 | 27.9 | | 46.2 | 21.9 | 28.2 | 70.1 | 54.2 | 19.3 | 19.3 | 22.0 | 35.3 | 28.3 |
| 30 | 29.2 | | 46.9 | 19.9 | 22.8 | 61.0 | 64.3 | 22.3 | 20.8 | 24.5 | 35.2 | 28.7 |
| 31 | 33.5 | | 35.2 | | 23.4 | | 42.1 | 30.3 | | 27.4 | | 26.2 |
| TOTAL | 997.9 | 915.1 | 965.9 | 710.9 | 621.5 | 993.2 | 1211.2 | 922.8 | 487.8 | 495.6 | 940.0 | 794.3 |
| AVERAGE | 32.2 | 32.7 | 31.2 | 23.7 | 20.0 | 33.1 | 39.1 | 29.8 | 16.3 | 16.0 | 31.3 | 25.6 |
| MAXIMUM | 44.0 | 39.7 | 47.1 | 30.9 | 28.2 | 70.1 | 64.7 | 51.6 | 22.9 | 27.4 | 51.6 | 31.3 |
| MINIMUM | 27.4 | 26.1 | 24.8 | 18.1 | 14.7 | 18.9 | 27.7 | 19.3 | 12.4 | 10.4 | 21.3 | 21.3 |

| ANNUAL | | | |
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| TOTAL | AVERAGE | MAXIMUM | MINIMUM |
| 10056.2 | 27.6 | 70.1 | 10.4 |

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STATION JUR [illegible] CATCHMENT AREA 939 KM**2 UNIT : M**3/SEC 1968-YEAR

| *DAY* | JAN. | FEB. | MAR. | APR. | MAY. | JUN. | JUL. | AUG. | SEP. | OCT. | NOV. | DEC. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 14.0 | 11.9 | 16.6 | 18.4 | 13.6 | 18.9 | 18.0 | 21.3 | 15.0 | 14.6 | 25.7 | 27.9 |
| 2 | 15.7 | 11.3 | 20.6 | 17.5 | 13.6 | 23.9 | 19.8 | 21.4 | 14.1 | 13.0 | 19.4 | 24.6 |
| 3 | 13.1 | 15.1 | 17.9 | 15.1 | 17.3 | 20.6 | 24.8 | 17.1 | 13.4 | 12.1 | 19.6 | 23.4 |
| 4 | 12.4 | 16.9 | 13.5 | 14.3 | 19.6 | 21.4 | 19.8 | 14.7 | 14.5 | 13.1 | 20.5 | 24.5 |
| 5 | 13.1 | 15.4 | 18.4 | 14.0 | 17.7 | 21.2 | 20.4 | 13.4 | 14.2 | 16.2 | 23.7 | 27.1 |
| 6 | 11.1 | 14.6 | 15.2 | 12.9 | 16.6 | 17.5 | 15.2 | 14.6 | 20.9 | 29.6 | 27.9 | 24.0 |
| 7 | 13.7 | 16.7 | 13.4 | 14.5 | 19.3 | 15.5 | 15.4 | 15.4 | 15.1 | 35.0 | 26.8 | 30.6 |
| 8 | 15.3 | 21.1 | 38.6 | 17.7 | 12.9 | 44.5 | 12.8 | 20.3 | 14.9 | 25.7 | 22.5 | 32.3 |
| 9 | 33.8 | 11.0 | 43.9 | 19.0 | 12.6 | 43.3 | 14.0 | 19.7 | 13.8 | 19.4 | 61.3 | 23.7 |
| 10 | 52.2 | 15.2 | 39.3 | 63.2 | 17.5 | 42.9 | 17.4 | 13.5 | 16.6 | 23.0 | 36.1 | 21.3 |
| 11 | 57.1 | 13.0 | 23.2 | 49.1 | 20.9 | 26.6 | 16.3 | 12.9 | 16.9 | 27.3 | 54.4 | 22.0 |
| 12 | 45.2 | 14.9 | 17.6 | 57.0 | 17.2 | 23.4 | 14.7 | 18.8 | 14.7 | 23.4 | 27.8 | 25.6 |
| 13 | 33.5 | 13.6 | 15.2 | 44.4 | 35.2 | 17.5 | 14.8 | 14.4 | 14.8 | 33.8 | 54.0 | 26.6 |
| 14 | 70.8 | 17.8 | 27.9 | 24.1 | 22.9 | 32.2 | 17.7 | 16.6 | 13.9 | 22.1 | 48.8 | 23.0 |
| 15 | 11.5 | 14.2 | 51.5 | 13.3 | 15.2 | 59.3 | 21.2 | 16.7 | 13.0 | 22.9 | 65.0 | 25.7 |
| 16 | 11.9 | 11.6 | 32.4 | 13.7 | 13.6 | 37.4 | 47.2 | 16.1 | 14.9 | 23.0 | 54.7 | 25.7 |
| 17 | 12.7 | 13.4 | 25.3 | 14.6 | 12.0 | 24.1 | 62.1 | 18.0 | 14.7 | 23.0 | 27.9 | 20.2 |
| 18 | 14.7 | 11.5 | 16.5 | 17.2 | 13.3 | 19.0 | 47.2 | 16.7 | 14.7 | 27.8 | 30.2 | 19.7 |
| 19 | 11.0 | 13.9 | 16.6 | 12.6 | 16.0 | 19.1 | 31.7 | 17.0 | 14.9 | 42.2 | 40.6 | 19.6 |
| 20 | 12.1 | 11.5 | 17.1 | 14.0 | 13.3 | 19.8 | 37.3 | 15.3 | 16.8 | 25.7 | 61.8 | 26.7 |
| 21 | 11.1 | 11.1 | 13.4 | 12.8 | 12.7 | 15.3 | 71.0 | 18.8 | 15.6 | 22.0 | 38.4 | 24.6 |
| 22 | 13.1 | 16.4 | 11.9 | 14.0 | 16.8 | 13.6 | 59.2 | 16.4 | 14.8 | 25.0 | 34.8 | 25.1 |
| 23 | 14.4 | 19.4 | 11.9 | 22.4 | 21.2 | 13.7 | 44.7 | 15.5 | 14.2 | 21.4 | 30.3 | 28.7 |
| 24 | 18.8 | 15.9 | 26.4 | 21.7 | 18.4 | 30.5 | 31.9 | 13.7 | 15.9 | 22.6 | 26.6 | 27.8 |
| 25 | 14.3 | 14.4 | 20.8 | 21.1 | 22.4 | 24.1 | 23.9 | 13.6 | 15.4 | 41.2 | 58.0 | 25.1 |
| 26 | 16.1 | 13.4 | 19.4 | 10.1 | 21.2 | 22.4 | 21.4 | 12.3 | 15.7 | 45.4 | 59.0 | 22.6 |
| 27 | 27.1 | 16.1 | 14.4 | 31.3 | 18.6 | 16.7 | 56.7 | 12.7 | 16.1 | 24.5 | 53.0 | 17.8 |
| 28 | 30.4 | 14.0 | 14.2 | 23.4 | 18.6 | 16.4 | 81.3 | 14.2 | 16.5 | 70.0 | 29.3 | 20.1 |
| 29 | 14.6 | 17.6 | 14.3 | 18.8 | 16.2 | 16.6 | 61.2 | 13.2 | 16.4 | 26.0 | 49.2 | 25.0 |
| 30 | 13.7 | | 14.3 | 15.2 | 22.5 | 16.8 | 45.1 | 14.0 | 16.6 | 25.8 | 45.9 | 21.4 |
| 31 | 13.7 | | 14.3 | | 20.8 | | 31.3 | 16.0 | | 36.5 | | 16.7 |
| TOTAL | 617.9 | 442.7 | 656.3 | 703.4 | 552.1 | 739.3 | 1018.1 | 496.3 | 459.0 | 833.3 | 1173.2 | 749.1 |
| AVERAGE | 19.9 | 15.3 | 21.2 | 23.3 | 17.8 | 24.6 | 32.8 | 16.0 | 15.3 | 26.9 | 39.1 | 24.2 |
| MAXIMUM | 52.7 | 33.6 | 51.5 | 63.2 | 35.2 | 59.3 | 81.3 | 21.4 | 20.9 | 70.0 | 65.0 | 32.3 |
| MINIMUM | 11.0 | 13.4 | 11.9 | 12.6 | 12.0 | 13.6 | 12.8 | 12.3 | 13.0 | 12.1 | 19.4 | 16.7 |

| ANNUAL | | | |
|---|---|---|---|
| TOTAL | AVERAGE | MAXIMUM | MINIMUM |
| 8636.7 | 23.1 | 81.3 | 10.4 |

1979/ 7/18 ( WED ) 14:11:40

STATION JUR [illegible] CATCHMENT AREA 939 KM**2 UNIT : M**3/SEC 1969-YEAR

| *DAY* | JAN. | FEB. | MAR. | APR. | MAY. | JUN. | JUL. | AUG. | SEP. | OCT. | NOV. | DEC. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 32.6 | 41.3 | 18.4 | 24.7 | 41.0 | 44.4 | 36.3 | 21.8 | 14.3 | 20.0 | 35.2 | 36.8 |
| 2 | 25.5 | 19.3 | 23.8 | 20.8 | 42.4 | 13.4 | 51.5 | 22.8 | 15.2 | 24.2 | 34.4 | 22.5 |
| 3 | 22.6 | 19.6 | 33.1 | 16.5 | 55.6 | 41.3 | 72.6 | 25.6 | 13.6 | 31.9 | 27.1 | 21.8 |
| 4 | 24.2 | 29.6 | 23.5 | 14.6 | 30.6 | 40.3 | 52.5 | 22.3 | 12.3 | 19.7 | 37.5 | 20.8 |
| 5 | 13.4 | 26.8 | 16.8 | 13.8 | 37.3 | 33.5 | 36.9 | 26.5 | 11.7 | 28.0 | 28.6 | 20.8 |
| 6 | 11.8 | 33.2 | 23.8 | 11.9 | 34.9 | 28.6 | 30.8 | 26.4 | 11.3 | 28.6 | 27.1 | 22.2 |
| 7 | 11.8 | 34.8 | 13.6 | 18.3 | 22.8 | 24.0 | 29.8 | 26.0 | 12.3 | 23.9 | 26.1 | 21.5 |
| 8 | 12.3 | 34.4 | 13.6 | 31.2 | 22.2 | 23.8 | 33.8 | 18.2 | 11.3 | 27.0 | 33.0 | 20.8 |
| 9 | 13.8 | 77.4 | 14.4 | 18.3 | 24.9 | 26.1 | 20.3 | 38.8 | 10.7 | 20.6 | 47.0 | 31.0 |
| 10 | 15.3 | 31.1 | 11.9 | 27.9 | 21.8 | 16.8 | 18.6 | 29.8 | 10.0 | 17.7 | 41.3 | 34.4 |
| 11 | 13.1 | 30.9 | 14.0 | 35.7 | 21.2 | 14.1 | 23.5 | 25.8 | 10.4 | 15.4 | 44.6 | 29.0 |
| 12 | 10.6 | 32.9 | 14.0 | 41.3 | 20.2 | 23.2 | 18.0 | 24.0 | 12.3 | 17.7 | 43.1 | 12.2 |
| 13 | 12.8 | 22.2 | 13.5 | 23.4 | 18.7 | 21.5 | 16.0 | 38.8 | 12.3 | 24.8 | 33.7 | 50.8 |
| 14 | 24.0 | 29.8 | 12.8 | 21.5 | 15.0 | 18.0 | 22.8 | 42.3 | 11.3 | 41.6 | 28.6 | 31.9 |
| 15 | 35.4 | 37.7 | 31.4 | 45.3 | 12.3 | 14.3 | 29.6 | 43.8 | 10.4 | 27.4 | 43.1 | 33.2 |
| 16 | 37.1 | 24.1 | 35.7 | 48.7 | 14.0 | 29.9 | 16.8 | 20.0 | 10.4 | 44.0 | 33.2 | 27.9 |
| 17 | 32.0 | 15.7 | 37.0 | 52.1 | 15.1 | 47.5 | 35.9 | 20.4 | 11.0 | 44.0 | 28.3 | 13.8 |
| 18 | 21.7 | 25.3 | 27.0 | 54.3 | 16.8 | 39.3 | 21.0 | 20.4 | 10.7 | 27.9 | 27.1 | 42.5 |
| 19 | 47.3 | 24.0 | 9.8 | 42.3 | 12.8 | 34.0 | 25.1 | 20.9 | 15.2 | 26.6 | 29.0 | 31.2 |
| 20 | 39.8 | 25.4 | 9.8 | 21.5 | 14.8 | 29.4 | 41.8 | 21.3 | 17.2 | 21.6 | 22.8 | 24.2 |
| 21 | 32.9 | 33.4 | 9.4 | 28.2 | 15.4 | 19.6 | 36.4 | 19.6 | 17.2 | 21.8 | 25.4 | 13.8 |
| 22 | 47.9 | 28.8 | 10.6 | 41.8 | 17.4 | 27.6 | 38.6 | 44.9 | 18.8 | 21.3 | 24.2 | 35.4 |
| 23 | 37.4 | 26.8 | 9.8 | 35.0 | 18.0 | 21.3 | 31.8 | 32.0 | 14.3 | 18.7 | 26.5 | 33.5 |
| 24 | 38.6 | 28.3 | 13.8 | 138.6 | 17.2 | 54.4 | 31.0 | 19.2 | 17.2 | 27.1 | 31.0 | 25.3 |
| 25 | 42.3 | 17.5 | 11.9 | 117.9 | 25.4 | 34.4 | 31.8 | 39.4 | 15.9 | 33.5 | 25.3 | 21.5 |
| 26 | 37.4 | 36.7 | 11.7 | 44.9 | 29.0 | 13.4 | 29.0 | 25.4 | 19.8 | 23.0 | 26.0 | 20.2 |
| 27 | 19.9 | 24.7 | 12.3 | 39.3 | 30.6 | 12.0 | 44.9 | 24.2 | 20.1 | 48.2 | 31.9 | 22.8 |
| 28 | 33.0 | 25.7 | 16.2 | 35.4 | 24.2 | 25.0 | 37.4 | 22.2 | 22.5 | 48.1 | 39.0 | 21.2 |
| 29 | 30.2 | | 15.0 | 26.4 | 20.4 | 33.8 | 27.6 | 21.8 | 35.2 | 37.8 | 26.5 | 18.3 |
| 30 | 19.4 | | 23.2 | 148.2 | 17.2 | 34.0 | 22.5 | 19.0 | 17.7 | 32.3 | 25.6 | 20.2 |
| 31 | 34.5 | | 17.7 | | 17.6 | | 22.5 | 18.0 | | 29.8 | | 18.6 |
| TOTAL | 825.8 | 780.8 | 535.1 | 1209.8 | 727.0 | 844.6 | 991.3 | 819.6 | 442.6 | 874.2 | 949.0 | 799.9 |
| AVERAGE | 26.6 | 27.9 | 17.3 | 40.3 | 23.5 | 28.2 | 32.0 | 26.4 | 14.8 | 28.2 | 31.6 | 25.8 |
| MAXIMUM | 47.9 | 41.3 | 37.0 | 148.2 | 55.6 | 54.4 | 72.6 | 44.9 | 35.2 | 48.2 | 47.0 | 50.8 |
| MINIMUM | 10.6 | 15.2 | 9.4 | 11.9 | 12.3 | 12.0 | 18.8 | 18.0 | 10.0 | 15.4 | 22.8 | 12.2 |

| ANNUAL | | | |
|---|---|---|---|
| TOTAL | AVERAGE | MAXIMUM | MINIMUM |
| 9799.7 | 26.8 | 148.2 | 9.4 |

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STATION JULUMIYO CATCHMENT AREA 939 KM**2 UNIT : M**3/SEC 1970-YEAR

| *DAY* | JAN. | FEB. | MAR. | APR. | MAY. | JUN. | JUL. | AUG. | SEP. | OCT. | NOV. | DEC. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 12.8 | 13.3 | 32.2 | 24.2 | 13.8 | 67.4 | 33.4 | 56.5 | 18.6 | 27.1 | 28.2 | 33.4 |
| 2 | 15.1 | 16.3 | 65.8 | 18.3 | 13.2 | 95.5 | 38.5 | 33.4 | 17.1 | 25.2 | 35.4 | 23.5 |
| 3 | 14.1 | 14.6 | 89.0 | 15.4 | 15.8 | 38.0 | 40.3 | 29.1 | 24.3 | 182.5 | 47.5 | 35.0 |
| 4 | 28.8 | 27.2 | 49.7 | 13.2 | 14.8 | 75.8 | 43.9 | 21.9 | 40.3 | 31.5 | 29.1 | 31.0 |
| 5 | 21.9 | 18.4 | 50.8 | 11.4 | 13.8 | 63.0 | 20.2 | 16.2 | 56.5 | 21.8 | 35.0 | 23.5 |
| 6 | 21.5 | 33.4 | 61.4 | 11.4 | 13.0 | 56.5 | 18.4 | 16.2 | 29.1 | 25.4 | 61.8 | 30.6 |
| 7 | 28.6 | 34.0 | 63.5 | 11.9 | 11.2 | 61.6 | 17.7 | 17.7 | 29.1 | 40.3 | 71.4 | 56.9 |
| 8 | 28.7 | 24.2 | 40.0 | 27.4 | 18.7 | 74.5 | 19.8 | 32.7 | 28.2 | 33.4 | 68.3 | 40.3 |
| 9 | 34.9 | 19.9 | 30.6 | 21.9 | 19.9 | 40.5 | 19.2 | 42.9 | 23.5 | 40.0 | 78.5 | 54.0 |
| 10 | 31.7 | 91.0 | 26.0 | 19.3 | 17.1 | 27.1 | 21.5 | 50.3 | 31.5 | 35.4 | 84.5 | 53.5 |
| 11 | 21.6 | 57.5 | 33.3 | 19.6 | 14.3 | 21.5 | 18.3 | 34.4 | 29.1 | 23.5 | 56.5 | 56.9 |
| 12 | 27.6 | 45.7 | 32.6 | 24.3 | 16.8 | 18.6 | 22.3 | 23.5 | 23.5 | 20.2 | 42.8 | 63.0 |
| 13 | 26.7 | 33.6 | 24.4 | 28.7 | 22.2 | 20.2 | 24.2 | 19.6 | 21.9 | 29.2 | 40.5 | 22.5 |
| 14 | 32.3 | 35.6 | 25.2 | 18.0 | 27.6 | 18.6 | 28.6 | 15.9 | 30.8 | 22.3 | 33.4 | 20.2 |
| 15 | 25.2 | 31.4 | 24.2 | 21.8 | 20.2 | 40.3 | 20.9 | 108.0 | 24.8 | 17.1 | 23.5 | 40.3 |
| 16 | 23.2 | 27.8 | 21.5 | 25.6 | 25.4 | 44.9 | 15.4 | 62.3 | 28.2 | 16.0 | 27.1 | 15.6 |
| 17 | 24.5 | 34.9 | 21.2 | 24.6 | 20.2 | 35.2 | 33.3 | 37.8 | 27.4 | 12.8 | 41.8 | 20.2 |
| 18 | 21.2 | 24.4 | 18.3 | 18.0 | 31.0 | 71.5 | 65.8 | 29.1 | 18.6 | 12.6 | 45.4 | 17.1 |
| 19 | 31.3 | 31.6 | 16.5 | 17.4 | 48.0 | 23.5 | 47.5 | 19.9 | 17.1 | 11.7 | 35.4 | 20.2 |
| 20 | 32.9 | 55.4 | 15.1 | 14.3 | 37.9 | 21.6 | 68.8 | 19.6 | 14.8 | 13.0 | 33.6 | 53.9 |
| 21 | 26.2 | 63.9 | 15.6 | 42.9 | 56.1 | 16.6 | 47.5 | 16.8 | 18.8 | 11.2 | 28.6 | 59.3 |
| 22 | 31.5 | 29.1 | 19.2 | 23.8 | 38.5 | 31.0 | 50.8 | 15.6 | 15.4 | 13.0 | 26.0 | 81.5 |
| 23 | 17.7 | 24.2 | 23.3 | 21.2 | 31.0 | 42.9 | 27.9 | 13.0 | 20.2 | 14.3 | 42.8 | 40.3 |
| 24 | 17.8 | 24.2 | 31.0 | 17.7 | 38.8 | 44.9 | 23.5 | 13.2 | 31.0 | 20.4 | 45.4 | 20.2 |
| 25 | 28.8 | 35.4 | 22.6 | 18.7 | 56.1 | 21.9 | 25.8 | 23.5 | 20.2 | 23.5 | 88.0 | 20.2 |
| 26 | 21.8 | 34.0 | 41.8 | 21.9 | 60.9 | 63.0 | 21.0 | 38.5 | 18.0 | 29.8 | 61.8 | 31.5 |
| 27 | 15.9 | 32.9 | 44.9 | 17.1 | 56.6 | 45.4 | 49.6 | 31.0 | 14.0 | 36.4 | 45.4 | 21.9 |
| 28 | 16.0 | 23.6 | 27.1 | 14.8 | 42.9 | 21.8 | 56.6 | 23.5 | 23.9 | 24.2 | 40.3 | 23.5 |
| 29 | 17.6 | | 20.2 | 30.0 | 27.1 | 16.5 | 13.2 | 18.6 | 34.0 | 25.6 | 35.9 | 17.1 |
| 30 | 13.8 | | 21.5 | 20.4 | 27.4 | 16.0 | 20.2 | 20.2 | 32.3 | 29.8 | 47.5 | 16.6 |
| 31 | 15.1 | | 23.2 | | 27.1 | | 55.4 | 29.8 | | 31.5 | | 20.2 |
| TOTAL | 774.5 | 495.3 | 1027.3 | 615.2 | 914.9 | 1287.8 | 1006.5 | 930.7 | 762.2 | 900.7 | 1381.4 | 1067.5 |
| AVERAGE | 23.4 | 15.5 | 33.1 | 20.5 | 29.5 | 42.9 | 32.5 | 30.0 | 25.4 | 29.1 | 46.0 | 34.4 |
| MAXIMUM | 39.3 | 91.0 | 89.0 | 42.9 | 68.0 | 95.5 | 63.8 | 108.0 | 56.5 | 182.5 | 88.0 | 81.5 |
| MINIMUM | 12.8 | 13.0 | 15.1 | 11.4 | 11.2 | 16.0 | 13.2 | 13.0 | 14.0 | 11.2 | 23.5 | 15.6 |

| ANNUAL | | | |
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| TOTAL | AVERAGE | MAXIMUM | MINIMUM |
| 11614.0 | 31.8 | 182.5 | 11.2 |

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STATION JULUMIYO CATCHMENT AREA 939 KM**2 UNIT : M**3/SEC 1971-YEAR

| *DAY* | JAN. | FEB. | MAR. | APR. | MAY. | JUN. | JUL. | AUG. | SEP. | OCT. | NOV. | DEC. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 20.7 | 21.7 | 23.5 | 53.7 | 20.2 | 22.2 | 18.6 | 27.4 | 18.3 | 11.0 | 31.0 | 21.5 |
| 2 | 17.1 | 21.5 | 23.2 | 78.3 | 28.2 | 20.2 | 21.2 | 34.0 | 19.2 | 12.4 | 37.4 | 22.2 |
| 3 | 20.2 | 23.0 | 21.8 | 136.5 | 20.2 | 21.2 | 23.5 | 29.8 | 23.2 | 17.1 | 39.9 | 21.5 |
| 4 | 17.1 | 23.3 | 31.0 | 53.3 | 19.2 | 27.1 | 17.9 | 22.2 | 20.2 | 26.1 | 32.3 | 23.5 |
| 5 | 23.5 | 47.9 | 27.1 | 56.9 | 19.6 | 27.1 | 16.2 | 23.5 | 19.2 | 21.6 | 33.4 | 18.9 |
| 6 | 45.4 | 31.0 | 21.8 | 16.4 | 35.4 | 33.4 | 16.8 | 18.6 | 16.2 | 20.2 | 29.0 | 18.3 |
| 7 | 84.5 | 29.1 | 18.9 | 33.0 | 33.0 | 40.5 | 69.1 | 18.3 | 13.0 | 17.1 | 23.2 | 17.7 |
| 8 | 104.0 | 31.0 | 18.3 | 38.8 | 21.6 | 27.1 | 93.5 | 19.9 | 20.2 | 16.2 | 24.2 | 16.3 |
| 9 | 84.5 | 76.4 | 16.3 | 29.4 | 22.2 | 19.2 | 93.5 | 20.6 | 15.5 | 16.2 | 25.8 | 17.7 |
| 10 | 74.5 | 35.4 | 16.5 | 25.6 | 23.5 | 19.6 | 85.8 | 29.1 | 17.1 | 17.1 | 33.4 | 15.6 |
| 11 | 40.3 | 28.3 | 15.6 | 24.8 | 33.0 | 16.4 | 91.0 | 20.2 | 16.8 | 37.9 | 20.2 | 16.2 |
| 12 | 34.9 | 43.8 | 21.9 | 22.2 | 43.9 | 23.4 | 65.3 | 16.8 | 20.2 | 23.2 | 18.3 | 14.6 |
| 13 | 32.0 | 36.0 | 33.6 | 22.5 | 33.4 | 22.5 | 45.4 | 17.1 | 20.2 | 23.5 | 18.4 | 15.4 |
| 14 | 28.7 | 29.0 | 20.2 | 32.6 | 33.6 | 19.2 | 42.6 | 23.5 | 17.7 | 21.9 | 17.1 | 14.8 |
| 15 | 28.6 | 25.6 | 18.6 | 21.9 | 33.4 | 21.6 | 31.5 | 22.2 | 13.0 | 17.1 | 20.5 | 14.6 |
| 16 | 36.6 | 23.5 | 19.2 | 29.8 | 27.1 | 32.2 | 20.2 | 14.3 | 12.8 | 14.3 | 19.2 | 14.3 |
| 17 | 42.9 | 27.1 | 17.8 | 25.2 | 27.1 | 31.5 | 16.8 | 15.6 | 12.8 | 15.4 | 23.2 | 16.0 |
| 18 | 71.3 | 45.1 | 18.9 | 33.0 | 22.2 | 24.8 | 15.6 | 16.6 | 18.4 | 18.7 | 42.9 | 17.7 |
| 19 | 40.3 | 45.4 | 20.2 | 40.3 | 31.2 | 25.0 | 13.8 | 14.3 | 16.2 | 18.3 | 23.8 | 20.2 |
| 20 | 37.4 | 41.3 | 31.5 | 27.1 | 37.9 | 18.4 | 19.3 | 15.4 | 14.3 | 16.8 | 33.4 | 28.2 |
| 21 | 41.8 | 31.0 | 25.6 | 27.1 | 27.1 | 15.4 | 20.4 | 16.8 | 17.7 | 16.9 | 29.1 | 23.8 |
| 22 | 43.3 | 15.9 | 21.5 | 22.2 | 42.9 | 20.8 | 27.5 | 15.4 | 23.8 | 25.8 | 27.1 | 34.0 |
| 23 | 37.6 | 27.8 | 20.2 | 28.8 | 29.1 | 18.6 | 53.9 | 14.3 | 17.8 | 34.6 | 26.7 | 46.0 |
| 24 | 30.6 | 24.0 | 32.3 | 63.4 | 29.8 | 15.4 | 46.3 | 15.4 | 15.4 | 25.4 | 27.1 | 51.4 |
| 25 | 27.1 | 21.8 | 27.1 | 27.1 | 27.4 | 19.2 | 20.2 | 15.4 | 13.0 | 18.9 | 35.4 | 48.0 |
| 26 | 23.5 | 22.2 | 48.2 | 23.5 | 28.6 | 21.8 | 24.4 | 18.4 | 16.8 | 27.1 | 40.3 | 45.4 |
| 27 | 26.8 | 25.6 | 29.0 | 31.2 | 25.4 | 20.2 | 16.8 | 18.3 | 13.2 | 35.9 | 34.0 | 33.4 |
| 28 | 25.4 | 24.7 | 31.5 | 23.2 | 29.8 | 27.1 | 21.8 | 14.3 | 12.6 | 25.8 | 27.1 | 25.2 |
| 29 | 23.5 | | 42.9 | 19.2 | 29.1 | 25.4 | 18.3 | 53.8 | 12.2 | 20.5 | 23.2 | 22.5 |
| 30 | 25.1 | | 42.9 | 18.6 | 37.5 | 19.9 | 18.7 | 67.4 | 11.4 | 28.2 | 21.5 | 22.2 |
| 31 | 20.2 | | 68.3 | | 23.5 | | 21.9 | 31.5 | | 23.5 | | 24.2 |
| TOTAL | 1229.3 | 931.3 | 827.7 | 1132.6 | 896.5 | 693.8 | 1119.5 | 700.4 | 498.4 | 686.7 | 838.1 | 783.3 |
| AVERAGE | 39.7 | 31.8 | 26.7 | 36.8 | 28.9 | 23.1 | 36.1 | 22.6 | 16.6 | 22.2 | 27.9 | 25.3 |
| MAXIMUM | 108.0 | 73.3 | 68.3 | 136.5 | 43.9 | 40.5 | 93.5 | 67.4 | 23.8 | 54.6 | 42.9 | 68.0 |
| MINIMUM | 17.1 | 21.7 | 15.6 | 18.6 | 19.2 | 15.4 | 13.8 | 14.3 | 11.4 | 11.0 | 17.1 | 14.3 |

| ANNUAL | | | |
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| TOTAL | AVERAGE | MAXIMUM | MINIMUM |
| 10266.6 | 28.1 | 136.5 | 11.0 |

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STATION JURONYO CATCHMENT AREA 939 KM**2 UNIT : M**3/SEC 1972-YEAR

| DAY | JAN. | FEB. | MAR. | APR. | MAY. | JUN. | JUL. | AUG. | SEP. | OCT. | NOV. | DEC. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 44.8 | 31.5 | 20.7 | 27.7 | 31.4 | 20.7 | 173.3 | 18.0 | 20.1 | 15.3 | 31.0 | 67.0 |
| 2 | 37.3 | 25.9 | 16.6 | 25.8 | 32.8 | 18.0 | 178.3 | 16.2 | 34.1 | 16.2 | 33.0 | 42.3 |
| 3 | 26.1 | 21.9 | 16.8 | 21.6 | 33.3 | 15.0 | 92.0 | 15.6 | 34.1 | 12.5 | 60.0 | 35.3 |
| 4 | 35.4 | 22.7 | 16.6 | 13.3 | 24.4 | 18.0 | 47.3 | 16.8 | 40.5 | 12.5 | 47.0 | 28.8 |
| 5 | 24.0 | 33.9 | 20.1 | 17.7 | 26.7 | 16.3 | 28.4 | 16.5 | 45.0 | 12.0 | 35.1 | 24.9 |
| 6 | 23.7 | 23.7 | 17.1 | 16.5 | 23.7 | 20.7 | 33.1 | 19.2 | 35.0 | 11.3 | 25.5 | 22.5 |
| 7 | 19.3 | 24.3 | 17.7 | 15.0 | 21.3 | 22.2 | 25.8 | 18.3 | 28.3 | 11.3 | 24.9 | 24.6 |
| 8 | 17.7 | 32.5 | 18.0 | 17.4 | 21.6 | 25.7 | 24.3 | 20.1 | 47.0 | 10.8 | 23.7 | 21.9 |
| 9 | 21.3 | 54.9 | 16.8 | 15.0 | 22.2 | 23.7 | 21.3 | 22.5 | 37.3 | 10.8 | 23.7 | 36.5 |
| 10 | 25.5 | 57.3 | 36.5 | 21.0 | 25.8 | 23.7 | 27.8 | 23.7 | 30.8 | 10.3 | 20.7 | 34.5 |
| 11 | 23.3 | 54.5 | 47.5 | 27.5 | 34.5 | 18.3 | 47.0 | 40.5 | 22.2 | 19.5 | 18.6 | 31.3 |
| 12 | 24.3 | 47.3 | 22.2 | 57.1 | 27.0 | 18.3 | 64.5 | 28.8 | 22.5 | 20.7 | 21.1 | 33.3 |
| 13 | 27.5 | 45.3 | 36.8 | 43.5 | 30.3 | 52.7 | 33.8 | 28.4 | 22.2 | 39.3 | 19.8 | 26.7 |
| 14 | 22.7 | 36.5 | 38.3 | 21.6 | 22.8 | 22.5 | 24.6 | 38.5 | 19.2 | 24.0 | 21.0 | 22.5 |
| 15 | 17.5 | 37.3 | 20.1 | 45.3 | 39.3 | 43.0 | 26.7 | 37.0 | 21.6 | 18.0 | 20.1 | 21.6 |
| 16 | 40.8 | 27.3 | 16.8 | 21.0 | 25.6 | 20.7 | 43.5 | 26.4 | 22.5 | 17.4 | 30.5 | 21.6 |
| 17 | 67.3 | 25.8 | 16.5 | 28.8 | 31.8 | 17.7 | 43.5 | 25.5 | 18.6 | 12.5 | 35.3 | 24.3 |
| 18 | 34.5 | 21.7 | 15.3 | 25.5 | 26.3 | 16.5 | 54.5 | 40.5 | 17.4 | 11.5 | 34.1 | 26.5 |
| 19 | 23.1 | 24.0 | 13.5 | 27.3 | 25.5 | 14.8 | 36.5 | 24.4 | 21.3 | 10.0 | 29.4 | 24.6 |
| 20 | 25.5 | 23.7 | 22.5 | 63.0 | 20.5 | 24.3 | 29.5 | 25.5 | 19.5 | 10.3 | 24.6 | 43.5 |
| 21 | 45.0 | 21.9 | 23.1 | 53.5 | 28.6 | 13.0 | 24.0 | 37.3 | 24.3 | 10.0 | 21.6 | 34.9 |
| 22 | 50.4 | 21.0 | 41.5 | 41.3 | 28.3 | 17.7 | 22.5 | 35.3 | 24.3 | 10.0 | 23.1 | 50.7 |
| 23 | 34.1 | 19.2 | 64.3 | 37.5 | 21.3 | 28.8 | 43.5 | 31.1 | 25.5 | 9.6 | 40.8 | 40.5 |
| 24 | 34.3 | 17.9 | 43.5 | 54.0 | 29.1 | 36.1 | 44.8 | 18.6 | 18.9 | 9.6 | 38.1 | 36.1 |
| 25 | 51.5 | 17.5 | 25.5 | 77.5 | 56.5 | 27.3 | 31.7 | 18.3 | 16.5 | 9.6 | 28.3 | 31.3 |
| 26 | 54.3 | 17.2 | 24.3 | 42.8 | 26.2 | 37.3 | 41.1 | 18.6 | 15.0 | 11.3 | 24.6 | 26.7 |
| 27 | 44.8 | 17.5 | 24.6 | 57.3 | 21.6 | 29.5 | 49.5 | 19.2 | 20.1 | 17.4 | 24.3 | 23.1 |
| 28 | 44.3 | 19.2 | 23.4 | 55.3 | 23.1 | 25.5 | 45.0 | 18.3 | 18.3 | 19.2 | 28.5 | 22.8 |
| 29 | 52.0 | 14.6 | 25.4 | 45.0 | 28.8 | 43.5 | 40.5 | 18.6 | 17.7 | 19.5 | 29.5 | 22.5 |
| 30 | 37.5 | | 36.5 | 40.5 | 33.9 | 142.8 | 22.5 | 20.7 | 15.0 | 23.1 | 22.8 | 22.8 |
| 31 | 26.7 | | 27.3 | | 26.9 | | 19.2 | 22.8 | | 30.3 | | 20.7 |
| TOTAL | 1091.4 | 833.6 | 801.2 | 1361.5 | 877.5 | 869.3 | 1433.6 | 766.6 | 754.8 | 475.8 | 860.6 | 946.3 |
| AVERAGE | 35.2 | 29.7 | 25.8 | 35.4 | 28.3 | 29.0 | 46.1 | 24.7 | 25.2 | 15.3 | 28.7 | 30.5 |
| MAXIMUM | 57.3 | 54.5 | 64.3 | 77.5 | 56.5 | 142.8 | 173.0 | 40.5 | 47.0 | 39.3 | 60.0 | 67.0 |
| MINIMUM | 17.7 | 14.6 | 15.3 | 15.0 | 21.3 | 16.5 | 19.2 | 15.6 | 15.0 | 9.6 | 18.6 | 20.7 |

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| TOTAL | AVERAGE | MAXIMUM | MINIMUM |
|---|---|---|---|
| 10769.2 | 29.4 | 178.0 | 9.6 |

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STATION JURONYO CATCHMENT AREA 939 KM**2 UNIT : M**3/SEC 1973-YEAR

| DAY | JAN. | FEB. | MAR. | APR. | MAY. | JUN. | JUL. | AUG. | SEP. | OCT. | NOV. | DEC. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 18.3 | 21.6 | 8.0 | 16.5 | 15.0 | 16.5 | 25.5 | 59.0 | 28.4 | 17.7 | 25.8 | 32.5 |
| 2 | 18.6 | 20.7 | 9.7 | 15.6 | 15.0 | 16.2 | 22.8 | 51.5 | 24.3 | 18.0 | 21.0 | 65.0 |
| 3 | 14.3 | 13.6 | 9.3 | 12.5 | 15.3 | 12.5 | 41.0 | 34.1 | 21.6 | 19.2 | 21.0 | 40.5 |
| 4 | 13.0 | 17.7 | 19.0 | 14.0 | 17.7 | 17.7 | 36.5 | 27.0 | 16.5 | 33.1 | 22.2 | 36.5 |
| 5 | 17.6 | 16.7 | 9.6 | 13.3 | 15.0 | 22.1 | 34.8 | 23.7 | 16.2 | 35.5 | 19.2 | 32.5 |
| 6 | 13.6 | 21.0 | 11.0 | 13.0 | 16.5 | 19.2 | 52.0 | 33.3 | 15.3 | 25.2 | 21.1 | 39.5 |
| 7 | 18.0 | 21.3 | 9.6 | 12.5 | 26.3 | 17.7 | 55.6 | 55.3 | 29.4 | 47.0 | 25.8 | 36.1 |
| 8 | 21.1 | 34.5 | 8.0 | 26.3 | 25.2 | 15.3 | 36.3 | 40.1 | 15.1 | 36.5 | 26.2 | 28.8 |
| 9 | 19.8 | 25.9 | 29.8 | 22.5 | 19.2 | 16.6 | 38.5 | 32.5 | 14.8 | 25.5 | 25.2 | 36.5 |
| 10 | 14.0 | 23.7 | 27.7 | 16.5 | 17.7 | 15.0 | 36.5 | 25.5 | 14.0 | 18.6 | 29.3 | 40.5 |
| 11 | 16.4 | 19.2 | 16.9 | 15.0 | 16.5 | 24.6 | 44.3 | 24.3 | 17.3 | 16.8 | 81.3 | 37.3 |
| 12 | 17.7 | 16.2 | 18.3 | 14.3 | 15.0 | 16.5 | 40.1 | 18.0 | 18.0 | 15.0 | 42.8 | 40.5 |
| 13 | 18.0 | 15.2 | 19.5 | 12.5 | 15.0 | 16.2 | 31.3 | 16.5 | 20.7 | 15.3 | 29.1 | 29.5 |
| 14 | 17.4 | 13.0 | 17.7 | 12.5 | 19.5 | 14.5 | 28.8 | 16.2 | 21.0 | 18.0 | 37.0 | 26.7 |
| 15 | 17.4 | 12.9 | 18.3 | 21.0 | 32.8 | 24.6 | 22.5 | 20.7 | 25.5 | 24.3 | 36.5 | 21.6 |
| 16 | 17.4 | 12.5 | 17.7 | 17.4 | 22.2 | 18.6 | 17.7 | 29.3 | 30.8 | 21.6 | 29.4 | 22.5 |
| 17 | 17.7 | 12.5 | 18.3 | 17.4 | 25.4 | 17.7 | 15.3 | 16.5 | 28.4 | 19.5 | 27.3 | 21.6 |
| 18 | 17.4 | 12.0 | 18.6 | 15.0 | 21.0 | 24.5 | 15.9 | 22.5 | 24.6 | 20.7 | 27.7 | 30.3 |
| 19 | 19.3 | 12.3 | 18.0 | 16.5 | 21.9 | 21.6 | 31.7 | 18.0 | 17.7 | 33.3 | 28.4 | 24.0 |
| 20 | 20.1 | 12.0 | 18.6 | 18.0 | 22.2 | 23.5 | 17.7 | 17.4 | 25.5 | 25.5 | 24.6 | 21.9 |
| 21 | 19.2 | 11.0 | 15.0 | 16.5 | 19.5 | 24.7 | 30.0 | 22.2 | 21.0 | 28.8 | 21.0 | 21.3 |
| 22 | 23.4 | 11.0 | 21.0 | 15.0 | 15.3 | 27.6 | 25.5 | 21.6 | 19.2 | 32.9 | 21.0 | 20.7 |
| 23 | 19.6 | 13.5 | 15.3 | 15.0 | 15.0 | 22.5 | 21.3 | 32.5 | 18.0 | 34.5 | 21.3 | 19.2 |
| 24 | 17.7 | 13.0 | 18.0 | 22.8 | 15.0 | 20.1 | 45.0 | 34.5 | 20.7 | 32.3 | 21.0 | 21.3 |
| 25 | 15.9 | 13.0 | 17.4 | 15.0 | 15.0 | 21.0 | 21.6 | 26.4 | 21.3 | 32.9 | 18.6 | 23.1 |
| 26 | 15.6 | 13.3 | 15.6 | 19.2 | 13.5 | 18.0 | 19.5 | 27.0 | 18.0 | 35.3 | 19.5 | 23.7 |
| 27 | 15.0 | 9.9 | 15.0 | 20.1 | 12.5 | 17.4 | 18.0 | 44.8 | 22.5 | 27.4 | 20.4 | 21.3 |
| 28 | 15.3 | 9.0 | 15.0 | 19.3 | 15.5 | 15.0 | 19.2 | 42.6 | 41.8 | 21.6 | 29.8 | 22.5 |
| 29 | 15.9 | | 17.4 | 15.0 | 19.8 | 15.0 | 22.5 | 27.8 | 36.5 | 24.0 | 41.0 | 23.1 |
| 30 | 15.3 | | 15.6 | 15.0 | 22.5 | 24.9 | 21.6 | 34.1 | 23.7 | 24.0 | 41.4 | 21.3 |
| 31 | 16.9 | | 13.0 | | 23.7 | | 24.3 | 30.3 | | 22.2 | | 20.7 |
| TOTAL | 554.4 | 436.9 | 491.4 | 459.7 | 561.7 | 560.9 | 915.5 | 927.2 | 688.0 | 802.2 | 857.9 | 902.5 |
| AVERAGE | 17.9 | 15.6 | 15.9 | 16.3 | 18.8 | 19.4 | 29.5 | 29.9 | 22.9 | 25.9 | 28.6 | 29.1 |
| MAXIMUM | 20.4 | 34.5 | 28.8 | 26.3 | 32.8 | 27.6 | 55.6 | 59.0 | 41.8 | 47.0 | 81.3 | 65.0 |
| MINIMUM | 15.0 | 9.0 | 8.0 | 12.5 | 12.5 | 12.5 | 15.3 | 16.2 | 14.0 | 15.0 | 18.6 | 19.2 |

ANNUAL

| TOTAL | AVERAGE | MAXIMUM | MINIMUM |
|---|---|---|---|
| 8228.3 | 22.5 | 81.3 | 8.0 |

1979/ 7/18 ( WED ) 14:11:40

STATION JULUMITO CATCHMENT AREA 939 KM**2 UNIT : M**3/SEC 1974-YEAR

| *DAY* | JAN. | FEB. | MAR. | APR. | MAY. | JUN. | JUL. | AUG. | SEP. | OCT. | NOV. | DEC. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 23.1 | 24.0 | 19.5 | 25.5 | 47.0 | 25.8 | 30.1 | 44.6 | 21.0 | 18.0 | 40.5 | 50.0 |
| 2 | 21.3 | 59.4 | 25.8 | 27.4 | 90.3 | 24.6 | 37.3 | 34.5 | 18.9 | 16.5 | 27.8 | 51.8 |
| 3 | 22.5 | 67.0 | 75.2 | 26.7 | 54.3 | 27.3 | 45.3 | 26.5 | 18.3 | 22.5 | 24.6 | 48.8 |
| 4 | 21.7 | 44.8 | 21.4 | 23.7 | 30.8 | 24.0 | 41.0 | 21.6 | 36.5 | 36.1 | 22.5 | 39.3 |
| 5 | 20.7 | 34.5 | 23.4 | 29.1 | 30.5 | 20.1 | 24.6 | 19.8 | 21.6 | 27.9 | 18.3 | 30.9 |
| 6 | 18.6 | 39.5 | 22.5 | 30.1 | 32.5 | 14.9 | 29.8 | 34.4 | 20.7 | 27.0 | 17.7 | 27.3 |
| 7 | 16.6 | 37.5 | 20.7 | 27.7 | 32.5 | 23.8 | 129.8 | 32.8 | 20.7 | 25.8 | 17.4 | 28.4 |
| 8 | 17.7 | 51.8 | 21.6 | 29.1 | 27.0 | 18.0 | 116.3 | 25.5 | 19.9 | 22.2 | 18.3 | 49.5 |
| 9 | 15.6 | 94.3 | 114.3 | 28.4 | 26.7 | 18.6 | 42.5 | 29.4 | 17.4 | 18.8 | 31.5 | 36.5 |
| 10 | 26.3 | 47.5 | 51.8 | 27.3 | 28.0 | 18.0 | 48.1 | 44.8 | 30.5 | 16.2 | 40.0 | 24.6 |
| 11 | 19.7 | 47.0 | 34.5 | 25.8 | 25.5 | 17.7 | 47.5 | 44.3 | 20.7 | 21.3 | 40.3 | 22.8 |
| 12 | 17.4 | 59.0 | 34.1 | 29.8 | 24.3 | 17.1 | 49.8 | 33.3 | 17.4 | 17.7 | 47.0 | 21.0 |
| 13 | 33.3 | 42.5 | 36.5 | 40.5 | 24.0 | 21.0 | 40.5 | 35.4 | 21.0 | 15.0 | 36.1 | 20.7 |
| 14 | 49.5 | 37.5 | 129.8 | 33.5 | 21.0 | 22.2 | 35.3 | 25.2 | 22.5 | 14.1 | 62.1 | 19.5 |
| 15 | 25.5 | 47.0 | 68.0 | 24.3 | 18.3 | 19.5 | 30.9 | 21.0 | 19.2 | 22.5 | 49.5 | 28.8 |
| 16 | 29.3 | 38.8 | 64.0 | 24.0 | 17.4 | 21.0 | 27.7 | 18.9 | 16.5 | 25.0 | 34.5 | 33.4 |
| 17 | 46.0 | 59.0 | 47.0 | 22.8 | 18.6 | 20.7 | 24.3 | 25.5 | 14.8 | 18.6 | 30.5 | 31.3 |
| 18 | 42.3 | 53.3 | 40.5 | 20.4 | 20.7 | 22.8 | 21.9 | 20.7 | 16.5 | 21.3 | 27.0 | 25.5 |
| 19 | 74.8 | 37.5 | 38.9 | 18.6 | 20.1 | 24.7 | 23.7 | 21.0 | 16.5 | 20.7 | 35.8 | 21.3 |
| 20 | 47.0 | 32.5 | 34.5 | 18.0 | 21.3 | 32.9 | 18.6 | 18.3 | 16.5 | 17.7 | 22.2 | 21.3 |
| 21 | 33.3 | 30.9 | 49.3 | 21.3 | 24.3 | 32.5 | 19.5 | 17.4 | 20.3 | 15.9 | 31.5 | 21.0 |
| 22 | 43.5 | 37.7 | 47.0 | 19.8 | 25.2 | 31.3 | 21.0 | 17.4 | 16.5 | 14.7 | 28.4 | 19.5 |
| 23 | 27.0 | 25.5 | 42.5 | 18.6 | 22.5 | 25.5 | 31.8 | 18.0 | 15.0 | 26.3 | 27.3 | 19.2 |
| 24 | 27.0 | 23.7 | 38.9 | 18.3 | 21.6 | 23.7 | 42.8 | 18.0 | 14.8 | 26.7 | 45.6 | 17.7 |
| 25 | 26.7 | 22.2 | 34.5 | 17.1 | 20.7 | 20.7 | 83.5 | 19.2 | 22.4 | 27.0 | 40.1 | 15.3 |
| 26 | 34.5 | 27.8 | 43.5 | 16.5 | 18.6 | 18.3 | 35.5 | 23.1 | 23.7 | 21.0 | 49.6 | 19.5 |
| 27 | 27.0 | 21.0 | 32.5 | 19.8 | 20.4 | 18.3 | 25.8 | 20.7 | 20.7 | 28.8 | 35.3 | 21.3 |
| 28 | 24.3 | 23.4 | 27.0 | 21.0 | 19.8 | 19.5 | 40.5 | 18.0 | 18.3 | 23.7 | 30.1 | 22.8 |
| 29 | 23.1 | | 30.5 | 21.3 | 20.7 | 24.9 | 40.8 | 17.4 | 15.0 | 25.5 | 28.8 | 24.3 |
| 30 | 21.6 | | 34.5 | 21.3 | 19.2 | 25.8 | 51.3 | 18.3 | 16.8 | 28.3 | 33.3 | 34.1 |
| 31 | 36.3 | | 34.1 | | 27.1 | | 89.2 | 20.7 | | 21.3 | | 29.1 |
| TOTAL | 911.2 | 1159.1 | 1282.5 | 724.1 | 850.9 | 678.9 | 1343.1 | 782.7 | 590.6 | 684.1 | 993.6 | 876.5 |
| AVERAGE | 29.4 | 41.4 | 41.4 | 24.1 | 27.4 | 22.6 | 43.3 | 25.2 | 19.7 | 22.1 | 33.1 | 28.3 |
| MAXIMUM | 74.8 | 94.0 | 129.8 | 40.5 | 90.3 | 32.9 | 129.8 | 44.8 | 36.5 | 36.1 | 62.1 | 51.8 |
| MINIMUM | 15.6 | 23.4 | 19.5 | 16.5 | 17.4 | 17.1 | 18.6 | 17.4 | 14.8 | 14.1 | 17.4 | 15.3 |

| ANNUAL | | | |
|---|---|---|---|
| TOTAL | AVERAGE | MAXIMUM | MINIMUM |
| 10877.3 | 29.8 | 129.8 | 14.1 |

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STATION JULUMITO CATCHMENT AREA 939 KM**2 UNIT : M**3/SEC 1975-YEAR

| *DAY* | JAN. | FEB. | MAR. | APR. | MAY. | JUN. | JUL. | AUG. | SEP. | OCT. | NOV. | DEC. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 32.8 | 17.4 | 42.3 | 18.0 | 18.0 | 22.2 | 45.0 | 18.9 | 26.3 | 15.0 | 23.7 | 178.0 |
| 2 | 59.5 | 15.0 | 54.0 | 29.0 | 18.0 | 21.6 | 25.5 | 18.6 | 20.4 | 17.4 | 25.8 | 86.5 |
| 3 | 45.8 | 18.0 | 47.0 | 27.7 | 32.5 | 21.0 | 23.7 | 18.0 | 16.8 | 18.9 | 24.0 | 44.8 |
| 4 | 35.3 | 16.5 | 43.4 | 23.7 | 26.1 | 21.9 | 28.8 | 18.0 | 15.6 | 20.7 | 42.8 | 69.8 |
| 5 | 37.1 | 24.6 | 42.5 | 29.3 | 30.8 | 22.2 | 36.5 | 29.6 | 16.1 | 20.7 | 31.3 | 47.0 |
| 6 | 26.7 | 25.4 | 48.3 | 24.0 | 59.5 | 19.8 | 28.8 | 21.6 | 14.4 | 20.7 | 43.5 | 44.8 |
| 7 | 24.0 | 27.0 | 33.3 | 21.3 | 49.5 | 22.5 | 31.8 | 21.9 | 13.5 | 16.5 | 83.8 | 78.8 |
| 8 | 74.0 | 29.5 | 29.4 | 18.6 | 28.4 | 25.5 | 44.8 | 20.7 | 21.6 | 14.8 | 65.8 | 54.8 |
| 9 | 21.6 | 26.7 | 29.1 | 41.8 | 33.3 | 27.0 | 64.8 | 19.5 | 27.7 | 16.3 | 107.5 | 44.3 |
| 10 | 23.1 | 23.1 | 29.4 | 22.5 | 29.4 | 44.8 | 32.5 | 24.0 | 35.2 | 17.7 | 68.0 | 47.0 |
| 11 | 27.8 | 20.7 | 29.1 | 27.8 | 28.4 | 29.4 | 25.2 | 19.2 | 22.2 | 18.0 | 117.3 | 42.8 |
| 12 | 71.0 | 19.2 | 28.8 | 21.3 | 24.9 | 27.7 | 21.3 | 27.1 | 18.3 | 20.7 | 62.3 | 35.3 |
| 13 | 19.8 | 18.6 | 31.3 | 21.3 | 24.0 | 61.5 | 18.6 | 26.2 | 18.0 | 27.9 | 49.5 | 31.3 |
| 14 | 19.8 | 13.0 | 34.1 | 21.0 | 25.2 | 62.3 | 40.3 | 38.5 | 18.9 | 28.8 | 41.3 | 30.5 |
| 15 | 21.0 | 17.4 | 35.1 | 20.7 | 25.5 | 69.5 | 18.6 | 38.5 | 56.8 | 53.3 | 40.8 | 28.8 |
| 16 | 20.7 | 16.0 | 58.3 | 18.9 | 30.1 | 51.8 | 18.9 | 61.5 | 34.8 | 25.5 | 39.3 | 35.3 |
| 17 | 20.7 | 18.0 | 33.1 | 18.0 | 32.1 | 40.5 | 18.3 | 67.0 | 24.0 | 33.3 | 39.3 | 40.5 |
| 18 | 21.3 | 17.4 | 27.0 | 21.6 | 28.4 | 37.3 | 21.0 | 65.0 | 21.3 | 32.1 | 36.5 | 35.3 |
| 19 | 19.8 | 20.7 | 21.3 | 18.6 | 27.3 | 32.5 | 20.1 | 32.1 | 18.0 | 35.5 | 28.8 | 60.3 |
| 20 | 18.3 | 29.8 | 22.8 | 17.7 | 21.9 | 30.5 | 21.0 | 29.5 | 20.7 | 22.5 | 24.0 | 74.0 |
| 21 | 18.0 | 32.1 | 25.5 | 15.9 | 20.1 | 32.9 | 21.0 | 30.8 | 18.9 | 31.0 | 25.5 | 60.9 |
| 22 | 19.8 | 36.5 | 26.7 | 15.0 | 17.7 | 32.5 | 21.0 | 30.3 | 15.6 | 57.3 | 48.3 | 80.5 |
| 23 | 21.0 | 80.3 | 24.9 | 15.3 | 20.1 | 54.3 | 17.4 | 30.5 | 20.7 | 25.8 | 40.5 | 64.5 |
| 24 | 19.2 | 66.8 | 24.0 | 16.5 | 21.0 | 44.8 | 17.4 | 26.2 | 20.7 | 19.5 | 40.8 | 84.5 |
| 25 | 17.7 | 47.8 | 22.8 | 17.4 | 20.7 | 44.8 | 15.3 | 21.9 | 48.9 | 19.8 | 47.5 | 66.5 |
| 26 | 17.4 | 35.3 | 21.6 | 15.6 | 24.6 | 37.3 | 18.3 | 34.9 | 40.8 | 22.8 | 36.5 | 69.3 |
| 27 | 17.4 | 35.3 | 21.0 | 18.0 | 18.9 | 32.5 | 22.2 | 24.3 | 25.5 | 59.5 | 51.3 | 114.0 |
| 28 | 16.5 | 59.0 | 21.0 | 32.5 | 19.8 | 29.8 | 26.1 | 21.6 | 21.6 | 45.6 | 54.3 | 98.8 |
| 29 | 16.5 | | 19.8 | 22.5 | 25.2 | 29.1 | 22.5 | 29.3 | 19.5 | 33.3 | 103.8 | 92.0 |
| 30 | 16.2 | | 18.0 | 20.7 | 25.5 | 44.3 | 19.2 | 43.4 | 20.7 | 24.6 | 34.9 | 74.0 |
| 31 | 16.2 | | 18.0 | | 21.0 | | 40.3 | 42.8 | | 24.0 | | 80.5 |
| TOTAL | 726.0 | 934.3 | 962.9 | 647.2 | 827.9 | 1097.6 | 825.6 | 951.4 | 713.5 | 839.5 | 1478.7 | 1999.4 |
| AVERAGE | 23.4 | 29.8 | 31.1 | 21.6 | 26.7 | 36.6 | 26.6 | 30.7 | 23.8 | 27.1 | 49.3 | 64.5 |
| MAXIMUM | 59.5 | 80.3 | 58.3 | 41.8 | 59.5 | 69.5 | 64.8 | 67.0 | 56.8 | 59.5 | 117.3 | 178.0 |
| MINIMUM | 16.2 | 17.4 | 18.0 | 15.0 | 17.7 | 19.8 | 15.3 | 18.0 | 13.5 | 14.8 | 23.[illegible] | 28.8 |

| ANNUAL | | | |
|---|---|---|---|
| TOTAL | AVERAGE | MAXIMUM | MINIMUM |
| 11904.0 | 32.6 | 178.0 | 13.5 |

1979/ 7/18 ( WED ) 14:11:40

STAT JULIMES CATCHMENT AREA 139 KM**2 UNIT : M**3/SEC 1976-YEAR

| DATE | JAN. | FEB. | MAR. | APR. | MAY. | JUN. | JUL. | AUG. | SEP. | OCT. | NOV. | DEC. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 63.0 | 75.1 | 11.1 | 15.4 | 14.0 | 31.8 | 27.6 | 21.7 | 26.6 | 11.8 | 20.1 | 11.8 |
| 2 | 47.5 | 15.3 | 17.4 | 12.6 | 47.9 | 22.5 | 46.1 | 23.4 | 33.0 | 17.2 | 18.8 | 16.0 |
| 3 | 41.4 | 14.5 | 22.0 | 14.7 | 20.7 | 11.0 | 41.4 | 19.1 | 15.2 | 34.1 | 25.4 | 11.8 |
| 4 | 35.3 | 11.5 | 19.5 | 21.4 | 16.2 | 20.7 | 42.8 | 16.5 | 12.2 | 36.0 | 20.1 | 11.0 |
| 5 | 29.3 | 11.8 | 31.3 | 13.5 | 24.3 | 21.3 | 35.3 | 17.5 | 11.8 | 23.8 | 48.2 | 11.8 |
| 6 | 26.7 | 17.7 | 35.3 | 13.8 | 42.0 | 11.5 | 47.5 | 23.3 | 12.6 | 21.3 | 42.8 | 10.4 |
| 7 | 25.4 | 31.9 | 41.1 | 11.4 | 29.8 | 20.1 | 55.6 | 26.2 | 11.8 | 26.0 | 16.0 | 9.1 |
| 8 | 31.9 | 22.0 | 74.2 | 12.4 | 60.8 | 20.4 | 42.2 | 27.3 | 11.8 | 13.8 | 14.7 | 9.1 |
| 9 | 31.3 | 15.7 | 49.4 | 15.1 | 35.8 | 41.4 | 47.2 | 40.5 | 11.8 | 17.6 | 20.1 | 13.0 |
| 10 | 24.1 | 13.4 | 47.9 | 31.6 | 31.3 | 63.8 | 71.3 | 27.3 | 11.8 | 15.9 | 11.8 | 11.8 |
| 11 | 23.6 | 21.4 | 23.6 | 58.9 | 71.0 | 40.5 | 85.1 | 43.3 | 11.8 | 11.8 | 10.4 | 14.3 |
| 12 | 17.7 | 31.9 | 27.3 | 27.3 | 111.2 | 39.6 | 88.9 | 20.4 | 11.8 | 12.6 | 10.2 | 9.0 |
| 13 | 15.3 | 77.1 | 25.4 | 29.8 | 63.8 | 18.8 | 101.0 | 23.6 | 11.8 | 12.6 | 10.2 | 8.5 |
| 14 | 16.2 | 45.5 | 36.5 | 32.2 | 26.0 | 14.7 | 73.9 | 40.4 | 20.1 | 12.6 | 40.5 | 9.1 |
| 15 | 15.9 | 67.8 | 25.5 | 160.5 | 25.5 | 17.2 | 59.3 | 45.1 | 76.0 | 13.8 | 29.2 | 10.4 |
| 16 | 17.2 | 23.6 | 17.7 | 58.4 | 24.8 | 15.2 | 24.6 | 26.2 | 26.0 | 11.8 | 18.8 | 13.8 |
| 17 | 23.3 | 25.1 | 20.5 | 55.2 | 20.1 | 22.3 | 33.2 | 33.1 | 12.6 | 11.8 | 11.0 | 20.1 |
| 18 | 29.8 | 24.7 | 19.5 | 42.4 | 52.8 | 18.8 | 75.8 | 37.2 | 11.8 | 13.8 | 10.2 | 16.7 |
| 19 | 13.5 | 21.4 | 21.3 | 34.6 | 25.4 | 19.3 | 212.5 | 29.6 | 12.6 | 12.6 | 9.6 | 11.0 |
| 20 | 13.7 | 33.1 | 23.6 | 31.8 | 19.1 | 53.6 | 123.4 | 13.4 | 14.7 | 13.8 | 10.2 | 20.3 |
| 21 | 13.7 | 23.6 | 31.3 | 33.3 | 21.7 | 130.1 | 39.1 | 58.4 | 24.7 | 12.6 | 9.0 | 9.6 |
| 22 | 12.6 | 37.3 | 66.6 | 35.3 | 24.0 | 50.4 | 42.8 | 23.6 | 29.5 | 13.5 | 9.6 | 14.3 |
| 23 | 13.4 | 47.8 | 36.5 | 27.1 | 31.0 | 33.0 | 29.1 | 31.3 | 34.1 | 17.2 | 9.0 | 14.7 |
| 24 | 16.4 | 30.7 | 25.4 | 29.5 | 19.4 | 60.2 | 27.6 | 33.5 | 20.5 | 17.2 | 9.6 | 9.9 |
| 25 | 16.7 | 31.3 | 104.0 | 36.5 | 11.0 | 35.8 | 51.5 | 27.7 | 13.5 | 29.8 | 9.1 | 10.2 |
| 26 | 16.2 | 23.2 | 92.3 | 43.6 | 25.1 | 33.6 | 49.9 | 20.3 | 26.0 | 23.8 | 8.5 | 9.0 |
| 27 | 14.2 | 26.0 | 65.9 | 40.5 | 12.4 | 35.8 | 23.6 | 19.1 | 47.5 | 17.2 | 8.0 | 9.1 |
| 28 | 18.9 | 23.6 | 37.3 | 47.8 | 17.6 | 68.7 | 26.0 | 45.1 | 53.3 | 18.8 | 9.1 | 9.0 |
| 29 | 33.3 | 24.7 | 25.4 | 31.8 | 10.4 | 38.1 | 26.0 | 36.7 | 22.0 | 14.7 | 9.6 | 8.0 |
| 30 | 63.4 | | 23.6 | 27.3 | 11.8 | 20.1 | 23.5 | 35.3 | 12.6 | 12.6 | 15.1 | 8.0 |
| 31 | 31.6 | | 17.7 | | 17.3 | | 24.5 | 36.6 | | 17.2 | | 9.6 |
| TOTAL | 833.7 | 754.8 | 1112.8 | 1120.0 | 917.2 | 1339.9 | 1796.0 | 915.7 | 601.5 | 539.3 | 494.9 | 362.4 |
| AVERAGE | 26.9 | 27.4 | 35.9 | 37.3 | 29.6 | 33.6 | 57.9 | 29.5 | 20.1 | 17.4 | 16.5 | 11.7 |
| MAXIMUM | 63.0 | 77.1 | 104.0 | 160.5 | 111.2 | 106.1 | 212.5 | 58.4 | 53.3 | 36.0 | 48.2 | 20.3 |
| MINIMUM | 17.6 | 13.5 | 12.6 | 11.4 | 10.4 | 11.0 | 23.6 | 13.4 | 11.8 | 11.8 | 8.0 | 8.0 |

ANNUAL

| TOTAL | AVERAGE | MAXIMUM | MINIMUM |
|---|---|---|---|
| 10465.1 | 28.6 | 212.5 | 8.0 |

1979/ 7/18 ( WED ) 14:11:40

STATION MALVISA CATCHMENT AREA 35 KM**2 UNIT : M**3/SEC 1962-YEAR

| DATE | JAN. | FEB. | MAR. | APR. | MAY. | JUN. | JUL. | AUG. | SEP. | OCT. | NOV. | DEC. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.26 | 3.96 | 3.87 | 1.44 | 3.35 | 2.76 | 3.70 | 21.71 | 2.88 | 1.44 | 3.12 | 1.94 |
| 2 | 1.59 | 0.76 | 0.85 | 2.25 | 3.32 | 2.96 | 3.86 | 23.00 | 2.88 | 1.41 | 3.12 | 1.24 |
| 3 | 1.32 | 3.96 | 0.85 | 2.22 | 6.90 | 7.44 | 5.03 | 27.53 | 3.20 | 1.87 | 2.64 | 1.21 |
| 4 | 1.54 | 3.96 | 3.85 | 2.25 | 5.25 | 21.00 | 5.93 | 24.62 | 8.56 | 2.12 | 2.32 | 1.17 |
| 5 | 1.31 | 3.96 | 0.87 | 3.75 | 3.51 | 17.45 | 5.98 | 20.75 | 5.30 | 2.19 | 1.96 | 1.19 |
| 6 | 1.34 | 3.93 | 3.93 | 3.47 | 3.28 | 9.65 | 5.51 | 18.48 | 5.51 | 2.80 | 1.93 | 1.57 |
| 7 | 1.13 | 0.90 | 1.35 | 1.88 | 2.25 | 8.39 | 6.67 | 14.72 | 4.82 | 2.88 | 1.93 | 2.64 |
| 8 | 1.09 | 0.42 | 3.03 | 1.66 | 1.91 | 4.98 | 7.61 | 11.10 | 3.47 | 4.48 | 1.93 | 2.52 |
| 9 | 1.56 | 3.96 | 4.81 | 1.39 | 3.44 | 3.88 | 8.39 | 7.44 | 3.00 | 5.46 | 1.65 | 3.39 |
| 10 | 1.21 | 0.94 | 5.67 | 1.21 | 2.84 | 3.84 | 8.33 | 4.11 | 2.76 | 4.84 | 2.29 | 3.47 |
| 11 | 1.76 | 1.33 | 3.76 | 1.15 | 3.12 | 3.24 | 9.21 | 2.52 | 3.27 | 4.43 | 2.76 | 3.12 |
| 12 | 2.67 | 1.09 | 2.54 | 1.09 | 3.12 | 2.76 | 10.95 | 2.09 | 3.58 | 4.02 | 3.08 | 2.92 |
| 13 | 2.45 | 1.09 | 2.43 | 1.09 | 4.20 | 2.72 | 11.64 | 2.76 | 2.84 | 2.80 | 3.50 | 2.64 |
| 14 | 2.32 | 1.39 | 1.44 | 1.39 | 3.47 | 2.52 | 10.01 | 3.76 | 2.88 | 2.64 | 3.84 | 2.39 |
| 15 | 1.54 | 1.07 | 1.29 | 1.09 | 3.12 | 2.32 | 9.38 | 4.60 | 7.61 | 2.64 | 3.97 | 2.32 |
| 16 | 1.51 | 1.37 | 2.37 | 1.39 | 3.46 | 2.05 | 8.84 | 6.15 | 5.20 | 2.64 | 4.60 | 2.25 |
| 17 | 1.29 | 1.02 | 3.40 | 1.07 | 6.83 | 1.76 | 9.94 | 7.32 | 4.34 | 2.07 | 3.84 | 1.93 |
| 18 | 1.24 | 1.62 | 2.83 | 0.98 | 4.71 | 1.67 | 12.56 | 6.27 | 3.35 | 1.41 | 3.58 | 1.76 |
| 19 | 1.21 | 1.44 | 2.25 | 1.15 | 6.61 | 1.31 | 12.97 | 7.56 | 3.35 | 1.44 | 4.76 | 1.70 |
| 20 | 1.13 | 1.39 | 2.02 | 1.26 | 8.52 | 2.07 | 13.76 | 5.94 | 2.92 | 1.36 | 5.41 | 1.56 |
| 21 | 1.39 | 1.36 | 1.76 | 1.26 | 7.08 | 3.33 | 15.74 | 4.65 | 7.60 | 1.79 | 4.71 | 1.44 |
| 22 | 1.15 | 1.24 | 1.99 | 1.29 | 5.87 | 4.41 | 13.88 | 4.15 | 2.19 | 2.47 | 3.70 | 1.44 |
| 23 | 1.39 | 1.19 | 2.32 | 1.39 | 5.36 | 4.71 | 11.64 | 3.84 | 1.65 | 2.64 | 3.24 | 1.31 |
| 24 | 1.36 | 1.15 | 2.60 | 1.49 | 4.71 | 5.94 | 10.16 | 3.47 | 1.44 | 2.15 | 3.60 | 1.21 |
| 25 | 1.24 | 1.04 | 3.35 | 2.29 | 4.54 | 7.56 | 9.06 | 3.47 | 1.44 | 2.02 | 3.60 | 1.21 |
| 26 | 1.21 | 0.96 | 2.88 | 1.96 | 4.30 | 10.10 | 8.48 | 2.39 | 1.44 | 2.37 | 3.27 | 1.21 |
| 27 | 1.11 | 3.93 | 2.52 | 2.12 | 3.62 | 8.89 | 9.90 | 1.62 | 1.36 | 2.57 | 2.32 | 2.00 |
| 28 | 1.13 | 0.77 | 2.22 | 2.32 | 3.24 | 6.83 | 13.74 | 1.44 | 1.34 | 2.42 | 1.96 | 2.80 |
| 29 | 1.07 | | 1.62 | 3.47 | 3.04 | 6.15 | 21.45 | 1.68 | 1.56 | 2.64 | 1.59 | 3.12 |
| 30 | 1.32 | | 1.56 | 4.20 | 3.39 | 5.30 | 24.23 | 1.85 | 1.46 | 2.88 | 1.59 | 2.39 |
| 31 | 0.96 | | 1.49 | | 3.47 | | 22.27 | 1.85 | | 3.12 | | 2.22 |
| TOTAL | 43.17 | 30.06 | 88.51 | 54.39 | 131.87 | 167.81 | 331.08 | 256.88 | 96.20 | 82.01 | 91.65 | 62.88 |
| AVERAGE | 1.39 | 1.37 | 2.21 | 1.81 | 4.25 | 5.59 | 10.69 | 8.29 | 3.27 | 2.65 | 3.06 | 2.03 |
| MAXIMUM | 2.45 | 1.62 | 5.67 | 4.20 | 8.52 | 21.00 | 24.23 | 27.53 | 8.56 | 5.46 | 5.41 | 3.47 |
| MINIMUM | 0.96 | 0.90 | 0.85 | 0.98 | 1.91 | 1.31 | 3.70 | 1.44 | 1.34 | 1.36 | 1.59 | 1.17 |

ANNUAL

| TOTAL | AVERAGE | MAXIMUM | MINIMUM |
|---|---|---|---|
| 1418.53 | 3.89 | 27.53 | 0.85 |

1979/ 7/18 ( WED ) 16:11:40

STATION MALVASA CATCHMENT AREA 35 KM**2 UNIT : M**3/SEC 1963-YEAR

| *DAY* | JAN. | FEB. | MAR. | APR. | MAY. | JUN. | JUL. | AUG. | SEP. | OCT. | NOV. | DEC. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.37 | 1.91 | 1.63 | 1.54 | 1.59 | 1.44 | 1.85 | 3.20 | 2.32 | 1.99 | 3.76 | 1.51 |
| 2 | 1.88 | 1.57 | 1.46 | 1.36 | 12.60 | 1.57 | 2.10 | 3.47 | 2.12 | 4.10 | 8.08 | 1.49 |
| 3 | 1.82 | 1.54 | 1.36 | 1.36 | 5.30 | 1.51 | 2.42 | 4.12 | 2.39 | 3.58 | 10.95 | 1.44 |
| 4 | 1.53 | 2.16 | 1.36 | 1.49 | 4.11 | 1.44 | 2.82 | 5.67 | 4.11 | 2.64 | 11.18 | 1.76 |
| 5 | 1.59 | 1.36 | 1.41 | 1.59 | 3.12 | 1.44 | 2.35 | 4.65 | 5.67 | 2.42 | 9.64 | 3.04 |
| 6 | 1.39 | 1.59 | 1.79 | 1.76 | 2.45 | 2.24 | 2.12 | 4.11 | 5.36 | 1.85 | 8.94 | 4.24 |
| 7 | 1.36 | 1.95 | 2.12 | 1.62 | 2.15 | 4.98 | 1.85 | 3.70 | 5.04 | 1.68 | 8.56 | 5.82 |
| 8 | 1.70 | 1.94 | 2.22 | 1.76 | 2.45 | 5.03 | 1.68 | 2.88 | 3.64 | 1.68 | 7.79 | 4.65 |
| 9 | 2.02 | 1.46 | 2.49 | 1.73 | 2.68 | 4.54 | 1.51 | 2.88 | 3.47 | 1.59 | 7.26 | 3.93 |
| 10 | 2.05 | 1.51 | 2.29 | 1.54 | 4.39 | 2.88 | 1.44 | 3.72 | 3.12 | 1.51 | 11.52 | 3.39 |
| 11 | 1.80 | 4.96 | 2.25 | 1.73 | 3.83 | 2.66 | 1.44 | 4.54 | 3.20 | 1.51 | 11.19 | 3.35 |
| 12 | 1.59 | 2.25 | 2.09 | 1.76 | 2.52 | 5.83 | 1.44 | 6.34 | 3.00 | 1.51 | 9.46 | 3.24 |
| 13 | 1.54 | 2.07 | 1.93 | 1.65 | 4.60 | 7.75 | 1.64 | 6.22 | 3.00 | 1.51 | 8.76 | 2.62 |
| 14 | 1.39 | 1.68 | 1.66 | 1.59 | 3.97 | 4.11 | 1.59 | 4.98 | 2.88 | 1.44 | 8.48 | 3.00 |
| 15 | 1.21 | 1.51 | 1.69 | 1.56 | 7.50 | 5.68 | 1.85 | 4.24 | 4.24 | 1.39 | 7.31 | 2.88 |
| 16 | 1.11 | 1.68 | 1.56 | 1.44 | 9.05 | 16.52 | 2.12 | 3.86 | 5.20 | 1.36 | 6.50 | 2.76 |
| 17 | 1.21 | 2.05 | 1.46 | 1.93 | 4.62 | 14.54 | 1.76 | 3.28 | 4.46 | 1.51 | 5.04 | 2.64 |
| 18 | 1.24 | 2.39 | 1.34 | 2.68 | 2.76 | 11.88 | 1.59 | 2.88 | 3.18 | 1.54 | 4.24 | 2.32 |
| 19 | 1.21 | 1.85 | 1.29 | 2.35 | 2.20 | 6.44 | 1.46 | 2.42 | 3.29 | 1.49 | 3.11 | 2.22 |
| 20 | 1.17 | 1.51 | 1.29 | 2.29 | 2.02 | 4.96 | 1.44 | 2.22 | 3.04 | 1.36 | 2.64 | 1.93 |
| 21 | 1.21 | 1.24 | 1.27 | 2.76 | 1.76 | 4.65 | 1.44 | 2.02 | 2.84 | 1.24 | 2.64 | 1.85 |
| 22 | 1.17 | 1.46 | 1.66 | 2.36 | 1.62 | 4.11 | 1.72 | 2.05 | 2.64 | 1.17 | 2.64 | 2.03 |
| 23 | 1.24 | 2.52 | 1.99 | 2.03 | 1.51 | 4.11 | 3.90 | 1.51 | 1.85 | 1.13 | 1.93 | 2.12 |
| 24 | 1.29 | 2.36 | 1.88 | 1.76 | 1.51 | 3.77 | 4.76 | 1.44 | 1.85 | 1.02 | 1.93 | 2.02 |
| 25 | 1.26 | 2.33 | 1.67 | 1.62 | 1.54 | 3.58 | 4.11 | 1.44 | 1.93 | 0.96 | 1.88 | 1.72 |
| 26 | 4.73 | 2.57 | 1.76 | 1.51 | 1.76 | 3.58 | 3.70 | 2.16 | 1.68 | 0.96 | 1.79 | 1.59 |
| 27 | 2.60 | 2.42 | 1.73 | 1.51 | 1.76 | 2.89 | 3.36 | 2.88 | 1.41 | 0.96 | 1.72 | 1.51 |
| 28 | 2.35 | 2.13 | 1.49 | 1.49 | 1.76 | 2.42 | 2.88 | 2.56 | 1.51 | 2.50 | 1.59 | 1.44 |
| 29 | 1.63 | | 1.36 | 1.54 | 2.22 | 2.32 | 2.52 | 3.16 | 1.65 | 3.12 | 1.51 | 1.44 |
| 30 | 1.44 | | 1.76 | 1.59 | 1.85 | 2.02 | 3.35 | 3.47 | 1.63 | 2.76 | 1.51 | 1.44 |
| 31 | 1.44 | | 1.59 | | 1.62 | | 3.47 | 2.80 | | 3.47 | | 1.44 |
| TOTAL | 50.72 | 47.19 | 53.05 | 52.90 | 102.82 | 140.66 | 71.68 | 105.05 | 91.72 | 56.95 | 173.53 | 77.03 |
| AVERAGE | 1.64 | 2.14 | 1.71 | 1.76 | 3.32 | 4.70 | 2.31 | 3.39 | 3.06 | 1.84 | 5.78 | 2.48 |
| MAXIMUM | 4.20 | 4.96 | 2.49 | 2.76 | 12.60 | 16.52 | 4.76 | 6.34 | 5.67 | 4.10 | 11.52 | 5.82 |
| MINIMUM | 1.17 | 1.24 | 1.29 | 1.36 | 1.51 | 1.44 | 1.44 | 1.44 | 1.41 | 0.96 | 1.51 | 1.44 |

ANNUAL

| TOTAL | AVERAGE | MAXIMUM | MINIMUM |
|---|---|---|---|
| 1033.50 | 2.83 | 16.52 | 0.96 |

1979/ 7/18 ( WED ) 16:11:40

STATION MALVASA CATCHMENT AREA 35 KM**2 UNIT : M**3/SEC 1964-YEAR

| *DAY* | JAN. | FEB. | MAR. | APR. | MAY. | JUN. | JUL. | AUG. | SEP. | OCT. | NOV. | DEC. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.36 | 0.66 | 0.59 | 0.98 | 1.34 | 3.51 | 5.74 | 5.82 | 9.62 | 2.12 | 5.36 | 1.85 |
| 2 | 1.29 | 0.63 | 0.63 | 0.93 | 1.29 | 3.35 | 4.11 | 6.30 | 13.88 | 2.76 | 4.87 | 1.85 |
| 3 | 1.21 | 0.63 | 0.59 | 0.90 | 1.29 | 8.65 | 3.47 | 8.39 | 11.64 | 3.08 | 4.24 | 2.12 |
| 4 | 1.13 | 0.59 | 0.59 | 0.96 | 1.29 | 5.15 | 3.35 | 7.67 | 8.76 | 3.83 | 4.54 | 2.67 |
| 5 | 1.09 | 0.60 | 0.54 | 0.90 | 1.21 | 4.62 | 2.68 | 7.08 | 6.83 | 4.11 | 3.97 | 2.45 |
| 6 | 1.07 | 0.69 | 0.59 | 0.87 | 1.12 | 5.20 | 2.29 | 6.67 | 5.87 | 5.36 | 3.58 | 2.22 |
| 7 | 1.12 | 0.63 | 0.70 | 0.79 | 1.09 | 7.38 | 3.56 | 6.32 | 5.46 | 4.51 | 3.58 | 2.12 |
| 8 | 0.90 | 0.61 | 0.68 | 0.94 | 0.98 | 5.91 | 4.89 | 5.51 | 5.15 | 4.24 | 4.87 | 2.07 |
| 9 | 0.85 | 0.54 | 0.63 | 1.21 | 0.96 | 4.11 | 4.38 | 6.50 | 5.04 | 3.90 | 5.56 | 1.97 |
| 10 | 0.85 | 0.59 | 0.59 | 1.36 | 1.67 | 3.08 | 3.97 | 6.21 | 4.87 | 7.41 | 4.93 | 2.71 |
| 11 | 0.85 | 0.59 | 0.59 | 1.72 | 1.44 | 2.12 | 3.46 | 5.51 | 4.87 | 7.32 | 4.43 | 2.88 |
| 12 | 3.79 | 1.70 | 0.59 | 1.93 | 1.29 | 1.76 | 3.24 | 4.82 | 4.87 | 6.61 | 4.38 | 3.47 |
| 13 | 0.79 | 2.03 | 0.59 | 2.22 | 1.64 | 1.67 | 3.24 | 4.38 | 4.11 | 11.87 | 3.77 | 4.04 |
| 14 | 0.79 | 1.63 | 0.59 | 2.32 | 2.17 | 1.51 | 2.84 | 4.38 | 3.75 | 16.35 | 3.39 | 3.19 |
| 15 | 0.85 | 1.34 | 0.59 | 2.76 | 6.88 | 2.76 | 2.76 | 3.91 | 3.47 | 14.98 | 2.94 | 2.29 |
| 16 | 0.79 | 1.29 | 0.59 | 2.76 | 9.91 | 9.35 | 2.82 | 3.58 | 3.35 | 10.26 | 3.06 | 2.12 |
| 17 | 0.76 | 1.29 | 0.59 | 2.70 | 8.21 | 14.57 | 3.04 | 3.35 | 3.18 | 11.18 | 2.52 | 2.12 |
| 18 | 0.74 | 1.19 | 0.65 | 2.45 | 5.85 | 14.02 | 3.35 | 3.14 | 3.06 | 9.64 | 2.39 | 1.93 |
| 19 | 0.74 | 0.98 | 0.68 | 2.22 | 2.52 | 5.49 | 3.23 | 3.98 | 2.88 | 8.67 | 2.22 | 1.85 |
| 20 | 0.68 | 0.79 | 0.65 | 2.12 | 2.39 | 4.54 | 2.96 | 4.31 | 2.76 | 6.54 | 2.22 | 2.32 |
| 21 | 0.63 | 0.74 | 0.63 | 2.12 | 1.67 | 3.58 | 2.94 | 3.97 | 2.58 | 5.82 | 2.22 | 3.47 |
| 22 | 0.63 | 0.70 | 0.72 | 2.12 | 3.09 | 3.20 | 5.51 | 4.71 | 2.42 | 5.06 | 2.12 | 3.58 |
| 23 | 0.66 | 0.68 | 0.70 | 2.02 | 4.06 | 6.47 | 11.29 | 4.79 | 2.42 | 4.87 | 2.12 | 3.71 |
| 24 | 0.68 | 0.63 | 0.66 | 1.93 | 3.46 | 9.09 | 8.03 | 5.74 | 2.25 | 4.87 | 1.93 | 3.84 |
| 25 | 0.65 | 0.63 | 0.68 | 1.88 | 3.18 | 3.75 | 8.15 | 9.94 | 2.22 | 7.93 | 1.89 | 4.64 |
| 26 | 0.66 | 0.63 | 0.63 | 5.51 | 2.56 | 3.12 | 8.03 | 11.98 | 2.22 | 9.46 | 1.85 | 11.91 |
| 27 | 0.68 | 0.63 | 0.63 | 4.15 | 2.45 | 3.12 | 7.22 | 10.03 | 2.22 | 8.74 | 1.76 | 13.04 |
| 28 | 0.68 | 0.59 | 0.63 | 2.37 | 2.15 | 3.15 | 6.73 | 8.00 | 2.19 | 7.32 | 1.76 | 12.09 |
| 29 | 0.85 | 0.59 | 0.63 | 1.67 | 2.08 | 3.66 | 6.67 | 7.32 | 2.12 | 6.67 | 1.68 | 11.07 |
| 30 | 0.68 | | 0.63 | 1.26 | 3.16 | 5.42 | 6.23 | 5.98 | 2.12 | 6.50 | 1.88 | 10.71 |
| 31 | 0.74 | | 0.87 | | 3.35 | | 5.98 | 5.51 | | 5.82 | | 10.24 |
| TOTAL | 25.99 | 24.86 | 19.64 | 58.07 | 86.55 | 147.41 | 146.14 | 185.84 | 136.16 | 217.75 | 96.03 | 136.34 |
| AVERAGE | 0.84 | 0.86 | 0.63 | 1.94 | 2.79 | 4.91 | 4.71 | 5.99 | 4.54 | 7.02 | 3.20 | 4.40 |
| MAXIMUM | 1.36 | 2.03 | 0.87 | 5.51 | 9.91 | 16.57 | 11.29 | 11.98 | 13.88 | 16.35 | 5.56 | 13.04 |
| MINIMUM | 0.63 | 0.59 | 0.54 | 0.79 | 0.96 | 1.51 | 2.29 | 3.18 | 2.12 | 2.12 | 1.68 | 1.85 |

ANNUAL

| TOTAL | AVERAGE | MAXIMUM | MINIMUM |
|---|---|---|---|
| 1280.74 | 3.50 | 16.57 | 0.54 |

1979/ 7/18 ( WED ) 14:11:40

STATION MALVASA CATCHMENT AREA 35 KM**2 UNIT : M**3/SEC 1965-YEAR

| M/DAY | JAN. | FEB. | MAR. | APR. | MAY. | JUN. | JUL. | AUG. | SEP. | OCT. | NOV. | DEC. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 10.71 | 1.65 | 1.02 | 5.16 | 6.06 | 13.87 | 2.03 | 2.17 | 3.12 | 1.09 | 4.54 | 3.47 |
| 2 | 9.67 | 1.35 | 1.02 | 5.41 | 6.66 | 13.53 | 1.93 | 4.22 | 3.12 | 1.02 | 7.34 | 5.24 |
| 3 | 8.67 | 2.09 | 1.02 | 4.38 | 5.51 | 12.88 | 1.76 | 3.79 | 3.00 | 0.96 | 11.06 | 5.27 |
| 4 | 8.39 | 7.15 | 4.49 | 4.32 | 4.49 | 11.64 | 1.91 | 3.70 | 2.56 | 0.90 | 9.13 | 4.24 |
| 5 | 7.47 | 7.77 | 2.15 | 3.70 | 4.38 | 13.95 | 2.65 | 3.58 | 2.52 | 0.85 | 8.15 | 4.38 |
| 6 | 6.92 | 3.12 | 2.02 | 3.70 | 4.24 | 9.68 | 4.06 | 7.59 | 2.35 | 1.08 | 6.50 | 4.02 |
| 7 | 6.51 | 3.17 | 1.93 | 3.47 | 3.84 | 9.42 | 9.09 | 5.46 | 2.17 | 1.17 | 6.15 | 3.47 |
| 8 | 5.72 | 4.03 | 1.93 | 3.12 | 3.70 | 4.62 | 6.69 | 4.71 | 1.88 | 1.21 | 5.35 | 3.24 |
| 9 | 4.74 | 7.99 | 1.76 | 2.97 | 3.64 | 7.79 | 3.43 | 4.31 | 1.85 | 1.15 | 5.04 | 9.36 |
| 10 | 4.25 | 7.76 | 1.55 | 2.76 | 6.75 | 6.61 | 2.88 | 3.84 | 1.65 | 1.15 | 4.76 | 13.05 |
| 11 | 3.59 | 7.66 | 1.46 | 2.76 | 6.09 | 4.87 | 2.88 | 3.39 | 1.51 | 1.02 | 3.84 | 8.37 |
| 12 | 3.33 | 2.52 | 1.29 | 2.45 | 4.68 | 4.15 | 2.88 | 2.72 | 1.44 | 0.96 | 3.47 | 5.67 |
| 13 | 3.34 | 2.67 | 1.29 | 2.76 | 3.86 | 3.84 | 10.79 | 2.32 | 1.44 | 0.96 | 3.47 | 5.36 |
| 14 | 3.29 | 2.27 | 1.29 | 2.25 | 3.62 | 3.52 | 11.38 | 2.15 | 1.44 | 0.93 | 3.47 | 3.97 |
| 15 | 3.23 | 2.72 | 1.23 | 2.37 | 3.16 | 3.47 | 4.24 | 1.71 | 1.44 | 2.70 | 4.54 | 3.39 |
| 16 | 4.39 | 2.15 | 1.52 | 1.93 | 2.76 | 3.47 | 3.43 | 1.59 | 1.36 | 5.63 | 5.92 | 3.00 |
| 17 | 4.24 | 1.96 | 1.29 | 1.93 | 2.45 | 3.28 | 3.03 | 1.76 | 1.36 | 9.91 | 7.55 | 2.88 |
| 18 | 4.70 | 1.75 | 1.21 | 1.72 | 2.42 | 3.00 | 2.68 | 1.76 | 1.29 | 9.09 | 8.39 | 2.88 |
| 19 | 3.77 | 1.85 | 1.18 | 1.68 | 2.17 | 3.00 | 2.64 | 1.76 | 1.17 | 7.00 | 9.78 | 2.82 |
| 20 | 3.44 | 1.76 | 1.39 | 1.59 | 3.31 | 2.94 | 8.93 | 1.62 | 1.15 | 6.75 | 11.29 | 2.76 |
| 21 | 3.41 | 1.64 | 1.09 | 1.59 | 3.47 | 2.76 | 15.70 | 1.46 | 1.15 | 5.25 | 19.27 | 2.35 |
| 22 | 3.84 | 1.40 | 1.25 | 1.83 | 5.45 | 6.25 | 8.85 | 1.44 | 1.13 | 4.65 | 28.26 | 2.32 |
| 23 | 3.78 | 1.17 | 1.44 | 1.98 | 5.24 | 7.79 | 8.01 | 1.44 | 1.02 | 3.57 | 28.10 | 2.22 |
| 24 | 2.88 | 1.05 | 1.44 | 2.02 | 5.52 | 5.95 | 6.79 | 2.59 | 0.96 | 3.23 | 21.68 | 2.27 |
| 25 | 2.64 | 1.39 | 1.44 | 2.02 | 6.67 | 5.45 | 5.67 | 3.36 | 0.96 | 2.43 | 13.38 | 2.32 |
| 26 | 1.36 | 1.09 | 1.12 | 2.12 | 10.18 | 7.48 | 4.71 | 12.45 | 1.31 | 1.85 | 10.03 | 2.42 |
| 27 | 1.59 | 1.39 | 1.02 | 2.42 | 12.32 | 5.67 | 3.97 | 7.24 | 1.21 | 3.97 | 5.35 | 2.27 |
| 28 | 1.44 | 1.09 | 1.02 | 2.82 | 13.29 | 4.79 | 3.00 | 5.57 | 1.15 | 5.14 | 3.72 | 2.12 |
| 29 | 1.79 | | 0.92 | 2.86 | 11.98 | 3.43 | 5.03 | 4.67 | 1.09 | 5.15 | 3.24 | 2.12 |
| 30 | 1.29 | | 0.93 | 2.88 | 14.03 | 2.49 | 3.46 | 5.22 | 1.09 | 4.71 | 2.84 | 2.02 |
| 31 | 1.15 | | 0.90 | | 16.26 | | 2.88 | 6.32 | | 4.54 | | 1.93 |
| TOTAL | 134.42 | 56.33 | 44.83 | 92.26 | 188.42 | 145.59 | 157.35 | 119.11 | 48.89 | 100.42 | 265.61 | 121.20 |
| AVE-AGE | 4.15 | 2.01 | 1.45 | 2.74 | 6.08 | 6.52 | 5.08 | 3.84 | 1.63 | 3.24 | 8.85 | 3.91 |
| MAXIMUM | 10.71 | 3.12 | 4.49 | 5.41 | 16.26 | 13.87 | 15.70 | 12.45 | 3.12 | 9.91 | 28.26 | 13.05 |
| MINIMUM | 1.29 | 1.09 | 0.90 | 1.59 | 2.17 | 2.49 | 1.76 | 1.44 | 0.96 | 0.85 | 2.84 | 1.93 |

| ANNUAL | | | |
|---|---|---|---|
| TOTAL | AVERAGE | MAXIMUM | MINIMUM |
| 1514.83 | 4.15 | 28.26 | 0.85 |

1979/ 7/18 ( WED ) 14:11:40

STATION MALVASA CATCHMENT AREA 35 KM**2 UNIT : M**3/SEC 1966-YEAR

| M/DAY | JAN. | FEB. | MAR. | APR. | MAY. | JUN. | JUL. | AUG. | SEP. | OCT. | NOV. | DEC. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.40 | 0.74 | 1.13 | 1.15 | 1.02 | 0.85 | 3.41 | 3.97 | 3.70 | 2.02 | 1.65 | 12.92 |
| 2 | 1.54 | 0.74 | 1.55 | 0.99 | 0.96 | 0.90 | 5.94 | 3.66 | 3.58 | 2.45 | 1.65 | 12.56 |
| 3 | 1.44 | 0.74 | 1.59 | 0.90 | 0.94 | 1.00 | 8.41 | 3.58 | 3.12 | 2.12 | 2.06 | 11.19 |
| 4 | 1.44 | 0.75 | 1.67 | 0.85 | 0.90 | 0.96 | 4.41 | 4.84 | 3.00 | 2.02 | 2.94 | 11.94 |
| 5 | 1.44 | 1.39 | 1.99 | 0.85 | 0.85 | 0.94 | 2.25 | 6.16 | 4.79 | 2.02 | 3.23 | 23.78 |
| 6 | 1.31 | 0.89 | 2.42 | 0.85 | 0.85 | 1.09 | 2.02 | 5.74 | 10.39 | 1.64 | 3.84 | 20.64 |
| 7 | 1.29 | 0.96 | 2.32 | 0.85 | 0.79 | 1.34 | 1.75 | 5.20 | 9.24 | 1.56 | 3.52 | 87.00 |
| 8 | 1.29 | 0.87 | 2.17 | 1.40 | 1.03 | 1.49 | 2.27 | 5.20 | 7.79 | 1.48 | 2.96 | 21.43 |
| 9 | 1.17 | 0.79 | 1.93 | 2.56 | 1.21 | 1.51 | 4.24 | 4.65 | 6.84 | 1.44 | 2.68 | 30.28 |
| 10 | 1.39 | 0.79 | 1.76 | 3.00 | 1.59 | 1.36 | 5.34 | 4.20 | 5.98 | 1.44 | 3.51 | 26.01 |
| 11 | 1.03 | 0.79 | 1.63 | 3.70 | 1.82 | 1.31 | 5.98 | 3.70 | 4.06 | 1.36 | 3.30 | 21.68 |
| 12 | 1.39 | 0.76 | 1.51 | 3.62 | 1.93 | 1.29 | 5.12 | 3.39 | 3.62 | 1.29 | 3.00 | 20.98 |
| 13 | 1.32 | 0.74 | 1.44 | 2.46 | 2.02 | 1.34 | 4.04 | 3.06 | 3.47 | 1.21 | 4.15 | 32.14 |
| 14 | 0.96 | 0.87 | 1.31 | 1.65 | 2.02 | 1.32 | 3.84 | 4.20 | 3.47 | 1.21 | 4.71 | 36.22 |
| 15 | 0.96 | 1.27 | 1.21 | 1.36 | 1.93 | 1.17 | 3.52 | 3.91 | 3.12 | 1.15 | 4.38 | 32.72 |
| 16 | 0.93 | 1.12 | 1.15 | 1.36 | 1.55 | 1.02 | 3.47 | 3.20 | 2.82 | 2.62 | 4.38 | 29.40 |
| 17 | 1.76 | 1.39 | 1.15 | 1.24 | 1.59 | 1.16 | 3.35 | 3.08 | 2.72 | 2.80 | 4.20 | 28.80 |
| 18 | 1.26 | 0.93 | 1.39 | 1.15 | 0.40 | 1.94 | 3.35 | 2.49 | 2.47 | 3.12 | 3.70 | 17.04 |
| 19 | 1.15 | 0.85 | 1.76 | 1.04 | 1.41 | 2.09 | 3.12 | 1.93 | 2.42 | 3.35 | 4.53 | 8.81 |
| 20 | 1.39 | 0.93 | 1.68 | 1.02 | 1.26 | 3.30 | 2.82 | 6.69 | 2.22 | 3.35 | 10.59 | 8.03 |
| 21 | 1.39 | 0.93 | 1.55 | 1.02 | 1.15 | 2.96 | 5.67 | 10.00 | 1.98 | 2.92 | 9.25 | 11.19 |
| 22 | 1.09 | 0.85 | 1.33 | 1.02 | 1.09 | 4.21 | 5.36 | 11.64 | 1.71 | 2.52 | 8.39 | 12.93 |
| 23 | 1.26 | 0.98 | 1.09 | 1.02 | 1.09 | 5.20 | 4.65 | 8.47 | 1.63 | 2.35 | 7.47 | 11.19 |
| 24 | 0.96 | 0.74 | 0.96 | 1.02 | 0.92 | 4.24 | 4.06 | 8.03 | 1.59 | 2.32 | 5.56 | 8.92 |
| 25 | 0.93 | 0.93 | 0.96 | 0.96 | 0.85 | 2.92 | 3.97 | 6.73 | 1.46 | 2.02 | 5.20 | 7.00 |
| 26 | 0.88 | 1.15 | 0.96 | 1.59 | 0.83 | 2.42 | 3.88 | 5.82 | 1.34 | 1.79 | 4.38 | 5.98 |
| 27 | 0.79 | 1.39 | 0.96 | 1.54 | 0.79 | 2.35 | 4.98 | 5.25 | 1.26 | 1.68 | 11.09 | 5.67 |
| 28 | 0.79 | 1.07 | 0.96 | 1.41 | 0.62 | 1.32 | 4.76 | 5.12 | 1.21 | 1.59 | 12.48 | 4.38 |
| 29 | 0.74 | | 1.39 | 1.17 | 1.00 | 1.76 | 4.18 | 4.87 | 1.73 | 1.49 | 13.53 | 3.97 |
| 30 | 0.74 | | 1.76 | 1.39 | 0.93 | 2.42 | 3.75 | 4.31 | 2.02 | 1.44 | 8.57 | 3.19 |
| 31 | 0.74 | | 1.68 | | 0.85 | | 4.20 | 4.04 | | 1.36 | | 3.00 |
| TOTAL | 34.40 | 25.43 | 46.34 | 41.86 | 36.70 | 57.08 | 128.09 | 157.17 | 105.15 | 61.13 | 160.90 | 500.99 |
| AVE-AGE | 1.11 | 0.91 | 1.49 | 1.46 | 1.18 | 1.90 | 4.13 | 5.07 | 3.51 | 1.97 | 5.36 | 16.16 |
| MAXIMUM | 1.80 | 1.27 | 2.42 | 3.70 | 2.02 | 5.20 | 8.41 | 11.64 | 10.39 | 3.35 | 13.53 | 36.22 |
| MINIMUM | 0.74 | 0.74 | 0.96 | 0.85 | 0.62 | 0.85 | 1.73 | 1.93 | 1.21 | 1.15 | 1.65 | 3.00 |

| ANNUAL | | | |
|---|---|---|---|
| TOTAL | AVERAGE | MAXIMUM | MINIMUM |
| 1357.24 | 3.72 | 36.22 | 0.62 |

1979/ 7/18 ( WED ) 14:11:40

STATION MALVASA CATCHMENT AREA 35 KM**2 UNIT : M**3/SEC 1967-YEAR

| *DAY* | JAN. | FEB. | MAR. | APR. | MAY. | JUN. | JUL. | AUG. | SEP. | OCT. | NOV. | DEC. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.45 | 1.97 | 1.11 | 2.88 | 1.73 | 7.58 | 12.09 | 11.19 | 2.67 | 2.52 | 4.82 | 3.24 |
| 2 | 1.45 | 1.82 | 1.02 | 2.60 | 1.56 | 6.71 | 16.67 | 8.77 | 2.45 | 2.56 | 3.97 | 2.80 |
| 3 | 1.62 | 1.68 | 0.96 | 2.25 | 1.51 | 5.98 | 19.71 | 5.88 | 2.12 | 2.52 | 2.72 | 2.49 |
| 4 | 2.12 | 1.55 | 0.96 | 2.02 | 1.46 | 13.14 | 17.79 | 8.84 | 2.12 | 2.49 | 2.42 | 2.88 |
| 5 | 2.97 | 2.25 | 0.93 | 1.85 | 1.44 | 18.62 | 17.56 | 10.00 | 1.99 | 2.35 | 2.56 | 2.72 |
| 6 | 2.76 | 3.30 | 0.85 | 1.68 | 1.44 | 13.20 | 15.74 | 13.87 | 1.93 | 2.19 | 2.35 | 2.52 |
| 7 | 2.37 | 2.61 | 1.06 | 1.59 | 2.80 | 8.23 | 12.97 | 12.56 | 1.79 | 2.02 | 2.22 | 2.35 |
| 8 | 1.96 | 2.32 | 0.96 | 1.46 | 2.64 | 6.38 | 10.01 | 11.11 | 1.65 | 1.85 | 2.09 | 2.02 |
| 9 | 1.88 | 2.15 | 1.02 | 1.63 | 1.82 | 5.20 | 7.71 | 10.00 | 1.59 | 1.85 | 1.90 | 1.73 |
| 10 | 1.71 | 1.95 | 1.02 | 1.76 | 1.73 | 11.95 | 6.33 | 9.06 | 1.55 | 1.85 | 1.88 | 1.59 |
| 11 | 1.59 | 1.59 | 0.96 | 1.93 | 2.35 | 9.34 | 5.15 | 8.15 | 1.49 | 1.93 | 1.76 | 1.93 |
| 12 | 1.56 | 1.49 | 1.04 | 1.96 | 2.12 | 7.95 | 3.84 | 6.50 | 1.44 | 2.02 | 1.79 | 1.85 |
| 13 | 1.44 | 1.31 | 1.05 | 1.85 | 1.82 | 6.87 | 3.12 | 5.98 | 1.51 | 1.88 | 2.60 | 1.76 |
| 14 | 1.74 | 1.82 | 1.02 | 1.76 | 1.59 | 3.75 | 2.80 | 4.60 | 1.51 | 1.85 | 4.35 | 1.65 |
| 15 | 3.16 | 1.73 | 1.02 | 1.76 | 1.59 | 7.63 | 2.57 | 4.38 | 1.44 | 1.76 | 2.80 | 1.56 |
| 16 | 2.82 | 1.44 | 1.48 | 1.62 | 1.49 | 9.15 | 2.09 | 4.11 | 1.31 | 1.68 | 2.22 | 1.51 |
| 17 | 2.76 | 1.36 | 1.71 | 2.02 | 1.36 | 8.92 | 1.85 | 6.42 | 1.26 | 1.68 | 1.85 | 1.31 |
| 18 | 2.76 | 1.29 | 1.95 | 2.76 | 2.35 | 7.55 | 2.68 | 28.08 | 1.30 | 1.56 | 1.85 | 1.44 |
| 19 | 2.67 | 1.21 | 1.89 | 3.77 | 2.76 | 6.73 | 3.12 | 18.59 | 1.56 | 1.44 | 2.00 | 1.24 |
| 20 | 2.29 | 1.21 | 2.02 | 3.77 | 2.47 | 5.72 | 2.60 | 14.94 | 2.41 | 1.34 | 5.04 | 1.21 |
| 21 | 1.97 | 1.12 | 2.42 | 3.70 | 2.47 | 6.06 | 2.32 | 12.09 | 2.88 | 1.29 | 6.41 | 1.21 |
| 22 | 2.57 | 1.60 | 2.32 | 6.42 | 2.29 | 13.51 | 2.02 | 10.00 | 2.45 | 1.29 | 5.56 | 1.15 |
| 23 | 2.19 | 1.56 | 2.42 | 6.27 | 2.09 | 21.33 | 3.60 | 8.57 | 2.32 | 1.29 | 3.35 | 1.09 |
| 24 | 2.07 | 1.48 | 2.58 | 5.35 | 1.68 | 27.13 | 5.77 | 7.95 | 2.22 | 1.21 | 5.19 | 1.09 |
| 25 | 2.70 | 1.32 | 3.41 | 4.46 | 1.76 | 28.60 | 7.03 | 7.63 | 1.91 | 1.21 | 6.84 | 3.97 |
| 26 | 2.42 | 1.19 | 2.84 | 3.86 | 3.07 | 21.21 | 8.92 | 6.45 | 1.76 | 1.46 | 5.56 | 3.39 |
| 27 | 2.09 | 1.15 | 1.88 | 2.96 | 3.80 | 18.47 | 15.43 | 5.14 | 1.76 | 1.65 | 5.56 | 3.04 |
| 28 | 1.89 | 1.15 | 1.23 | 2.73 | 3.39 | 11.34 | 19.07 | 3.12 | 1.76 | 1.63 | 4.75 | 2.39 |
| 29 | 2.80 | | 3.85 | 1.93 | 3.51 | 12.02 | 18.93 | 2.80 | 2.09 | 1.59 | 4.25 | 1.94 |
| 30 | 2.45 | | 4.87 | 1.82 | 4.24 | 13.68 | 15.39 | 2.68 | 2.52 | 2.84 | 3.62 | 1.54 |
| 31 | 2.35 | | 4.02 | | 3.71 | | 12.81 | 3.29 | | 3.20 | | 1.44 |
| TOTAL | 68.78 | 46.22 | 55.72 | 82.06 | 70.24 | 341.35 | 277.61 | 272.75 | 56.83 | 58.00 | 104.28 | 62.25 |
| AVERAGE | 2.22 | 1.65 | 1.80 | 2.74 | 2.27 | 11.38 | 8.96 | 8.80 | 1.89 | 1.87 | 3.48 | 2.01 |
| MAXIMUM | 3.16 | 3.00 | 4.87 | 6.42 | 4.24 | 28.60 | 19.71 | 28.08 | 2.88 | 3.20 | 6.84 | 3.97 |
| MINIMUM | 1.44 | 1.12 | 0.85 | 1.46 | 1.36 | 3.75 | 1.85 | 2.68 | 1.26 | 1.21 | 1.76 | 1.09 |

| ANNUAL | | | |
|---|---|---|---|
| TOTAL | AVERAGE | MAXIMUM | MINIMUM |
| 1496.09 | 4.10 | 28.60 | 0.85 |

1979/ 7/18 ( WED ) 14:11:40

STATION MALVASA CATCHMENT AREA 35 KM**2 UNIT : M**3/SEC 1968-YEAR

| *DAY* | JAN. | FEB. | MAR. | APR. | MAY. | JUN. | JUL. | AUG. | SEP. | OCT. | NOV. | DEC. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.44 | 1.39 | 1.11 | 1.85 | 3.20 | 3.39 | 16.64 | 17.91 | 0.95 | 0.92 | 1.26 | 10.00 |
| 2 | 1.39 | 1.77 | 1.31 | 1.71 | 3.08 | 4.15 | 20.37 | 19.60 | 0.89 | 0.82 | 1.59 | 8.92 |
| 3 | 1.29 | 2.04 | 1.49 | 1.71 | 2.84 | 5.36 | 24.88 | 20.28 | 0.85 | 0.77 | 1.93 | 8.38 |
| 4 | 1.29 | 2.62 | 1.44 | 2.44 | 2.60 | 7.63 | 23.72 | 20.05 | 0.92 | 0.85 | 1.93 | 7.71 |
| 5 | 1.21 | 3.33 | 1.34 | 3.16 | 2.52 | 8.74 | 22.74 | 18.93 | 0.90 | 1.23 | 1.76 | 6.50 |
| 6 | 1.21 | 2.45 | 1.26 | 3.16 | 2.42 | 10.00 | 21.45 | 18.37 | 3.53 | 3.04 | 1.44 | 6.09 |
| 7 | 1.44 | 2.38 | 1.11 | 3.34 | 2.88 | 14.33 | 23.86 | 17.33 | 0.96 | 3.24 | 1.29 | 5.41 |
| 8 | 1.39 | 1.79 | 1.09 | 3.00 | 3.39 | 14.09 | 20.28 | 16.35 | 0.94 | 2.92 | 1.26 | 4.76 |
| 9 | 1.36 | 1.57 | 1.44 | 2.88 | 3.64 | 13.53 | 19.26 | 15.22 | 0.87 | 2.88 | 1.44 | 4.49 |
| 10 | 1.34 | 1.44 | 1.44 | 2.49 | 4.06 | 13.53 | 18.26 | 14.10 | 1.45 | 2.64 | 1.65 | 4.06 |
| 11 | 1.29 | 1.36 | 1.41 | 2.32 | 4.38 | 12.09 | 21.45 | 13.87 | 1.61 | 2.52 | 1.68 | 3.84 |
| 12 | 1.21 | 1.33 | 1.26 | 2.32 | 4.38 | 11.75 | 23.45 | 13.53 | 0.93 | 2.42 | 1.74 | 3.70 |
| 13 | 1.44 | 1.21 | 1.13 | 2.22 | 4.71 | 12.37 | 21.69 | 13.21 | 0.94 | 2.42 | 1.88 | 3.39 |
| 14 | 1.39 | 1.19 | 1.09 | 2.07 | 5.04 | 15.22 | 21.21 | 12.80 | 0.88 | 2.29 | 1.93 | 3.12 |
| 15 | 1.36 | 1.15 | 1.09 | 2.57 | 5.20 | 16.26 | 20.45 | 12.32 | 0.82 | 2.19 | 2.05 | 2.88 |
| 16 | 1.29 | 1.39 | 1.39 | 2.92 | 5.36 | 17.68 | 20.05 | 2.23 | 0.94 | 2.12 | 2.25 | 2.52 |
| 17 | 1.29 | 1.15 | 1.41 | 3.58 | 6.09 | 17.79 | 19.76 | 2.18 | 0.93 | 2.09 | 2.53 | 2.35 |
| 18 | 1.21 | 1.17 | 1.22 | 3.66 | 5.56 | 17.56 | 19.04 | 1.50 | 0.93 | 2.42 | 2.64 | 2.02 |
| 19 | 1.21 | 1.15 | 1.51 | 3.47 | 5.35 | 17.10 | 18.03 | 1.67 | 0.94 | 2.12 | 2.92 | 1.85 |
| 20 | 1.15 | 1.39 | 1.71 | 3.31 | 5.15 | 16.64 | 17.56 | 3.97 | 1.56 | 1.90 | 3.08 | 1.85 |
| 21 | 1.09 | 1.13 | 2.43 | 3.31 | 4.96 | 15.65 | 19.71 | 2.57 | 0.99 | 1.62 | 3.35 | 1.59 |
| 22 | 1.09 | 1.09 | 2.56 | 3.43 | 4.87 | 15.22 | 19.93 | 1.34 | 0.94 | 1.59 | 3.58 | 1.56 |
| 23 | 1.07 | 1.09 | 2.39 | 3.66 | 4.54 | 14.65 | 19.37 | 0.98 | 0.90 | 1.59 | 4.40 | 1.51 |
| 24 | 0.96 | 1.09 | 2.76 | 3.75 | 4.02 | 13.98 | 18.26 | 0.87 | 1.06 | 1.59 | 5.94 | 1.42 |
| 25 | 1.17 | 1.15 | 2.42 | 3.93 | 3.78 | 13.29 | 17.56 | 0.86 | 0.97 | 1.56 | 6.50 | 1.65 |
| 26 | 2.72 | 1.15 | 2.19 | 3.84 | 3.56 | 14.68 | 17.10 | 0.78 | 0.99 | 1.36 | 8.27 | 1.51 |
| 27 | 2.29 | 1.13 | 1.90 | 3.70 | 3.47 | 16.26 | 16.52 | 0.80 | 1.17 | 1.26 | 9.57 | 1.39 |
| 28 | 1.93 | 1.09 | 1.59 | 3.52 | 3.29 | 18.03 | 16.52 | 0.90 | 1.39 | 1.21 | 10.00 | 1.36 |
| 29 | 1.65 | 1.15 | 1.85 | 3.47 | 3.20 | 18.08 | 16.26 | 0.84 | 1.34 | 1.21 | 10.00 | 1.29 |
| 30 | 1.41 | | 1.90 | 3.35 | 3.04 | 17.22 | 15.61 | 0.89 | 1.45 | 1.21 | 10.00 | 1.29 |
| 31 | 1.41 | | 1.85 | | 2.88 | | 15.31 | 1.11 | | 1.29 | | 1.21 |
| TOTAL | 42.94 | 42.76 | 50.09 | 89.80 | 123.40 | 407.07 | 602.79 | 264.36 | 33.94 | 57.27 | 109.86 | 109.82 |
| AVERAGE | 1.37 | 1.47 | 1.62 | 2.99 | 3.98 | 13.57 | 19.44 | 8.53 | 1.13 | 1.85 | 3.66 | 3.54 |
| MAXIMUM | 2.72 | 3.00 | 2.76 | 3.93 | 6.09 | 18.08 | 24.88 | 20.28 | 3.53 | 3.24 | 10.00 | 10.00 |
| MINIMUM | 0.96 | 1.09 | 1.06 | 1.71 | 2.42 | 3.39 | 15.11 | 0.78 | 0.82 | 0.77 | 1.26 | 1.21 |

| ANNUAL | | | |
|---|---|---|---|
| TOTAL | AVERAGE | MAXIMUM | MINIMUM |
| 1934.10 | 5.28 | 24.88 | 0.77 |

1979/ 7/18 ( WED ) 14:11:40

STATION MALVASA CATCHMENT AREA 35 KM**2 UNIT : M**3/SEC 1969-YEAR

| DAY# | JAN. | FEB. | MAR. | APR. | MAY. | JUN. | JUL. | AUG. | SEP. | OCT. | NOV. | DEC. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.87 | 0.92 | 1.08 | 1.19 | 7.97 | 1.92 | 6.91 | 2.37 | 3.02 | 2.54 | 2.60 | 0.87 |
| 2 | 0.87 | 1.14 | 1.08 | 1.50 | 10.50 | 3.02 | 10.09 | 2.12 | 2.42 | 2.96 | 2.27 | 1.03 |
| 3 | 0.87 | 1.29 | 1.03 | 1.92 | 8.27 | 5.38 | 13.63 | 1.92 | 2.32 | 6.42 | 2.02 | 1.66 |
| 4 | 0.78 | 1.53 | 0.98 | 2.02 | 7.70 | 7.18 | 10.28 | 1.82 | 1.82 | 4.86 | 1.92 | 1.50 |
| 5 | 0.73 | 1.53 | 0.98 | 2.02 | 6.10 | 10.50 | 7.05 | 1.40 | 1.60 | 7.03 | 2.22 | 1.24 |
| 6 | 0.66 | 1.71 | 0.98 | 2.27 | 5.74 | 7.10 | 5.53 | 1.29 | 1.29 | 5.47 | 2.04 | 1.34 |
| 7 | 0.66 | 1.37 | 0.87 | 2.37 | 5.04 | 5.48 | 5.26 | 1.34 | 1.29 | 3.54 | 3.88 | 1.19 |
| 8 | 0.59 | 1.32 | 0.87 | 2.54 | 4.87 | 5.48 | 5.53 | 1.61 | 1.24 | 2.72 | 4.46 | 1.08 |
| 9 | 0.59 | 1.66 | 0.87 | 2.54 | 4.87 | 9.92 | 3.64 | 1.76 | 1.14 | 2.22 | 4.16 | 1.40 |
| 10 | 0.54 | 1.56 | 0.92 | 7.66 | 4.09 | 5.48 | 2.26 | 1.87 | 1.08 | 1.92 | 4.09 | 1.24 |
| 11 | 0.49 | 1.50 | 0.98 | 2.46 | 3.34 | 4.23 | 10.27 | 2.02 | 1.08 | 1.66 | 3.41 | 1.14 |
| 12 | 0.68 | 1.29 | 0.78 | 3.15 | 2.42 | 3.41 | 9.15 | 2.54 | 1.29 | 1.61 | 2.90 | 0.98 |
| 13 | 0.98 | 1.29 | 0.68 | 3.41 | 2.12 | 2.66 | 8.49 | 2.54 | 1.45 | 1.56 | 2.54 | 0.98 |
| 14 | 1.45 | 1.19 | 0.59 | 3.54 | 2.12 | 2.22 | 8.04 | 2.96 | 1.56 | 3.68 | 2.12 | 1.08 |
| 15 | 1.97 | 1.38 | 0.59 | 3.81 | 1.92 | 1.76 | 7.58 | 3.02 | 1.61 | 6.72 | 1.82 | 0.98 |
| 16 | 2.32 | 0.98 | 0.59 | 4.09 | 1.76 | 1.71 | 6.92 | 3.41 | 1.61 | 8.48 | 1.66 | 1.24 |
| 17 | 2.42 | 0.87 | 0.78 | 4.37 | 1.71 | 2.12 | 5.92 | 3.67 | 1.45 | 6.43 | 2.02 | 1.45 |
| 18 | 3.02 | 1.08 | 0.78 | 4.54 | 1.40 | 2.22 | 5.03 | 3.67 | 1.19 | 3.75 | 2.02 | 1.56 |
| 19 | 3.54 | 1.19 | 0.78 | 4.86 | 1.40 | 2.66 | 5.92 | 4.02 | 1.19 | 2.60 | 1.71 | 1.92 |
| 20 | 4.39 | 1.24 | 0.98 | 5.56 | 1.82 | 2.90 | 6.42 | 4.23 | 1.08 | 2.17 | 2.02 | 1.66 |
| 21 | 4.23 | 1.29 | 0.98 | 6.10 | 1.87 | 3.41 | 5.30 | 4.37 | 1.14 | 1.97 | 2.12 | 1.45 |
| 22 | 4.02 | 1.34 | 0.98 | 7.46 | 2.02 | 3.41 | 6.42 | 4.95 | 1.08 | 2.02 | 1.97 | 1.40 |
| 23 | 3.67 | 1.24 | 0.87 | 9.04 | 2.02 | 4.23 | 8.04 | 5.29 | 1.19 | 2.32 | 2.17 | 1.34 |
| 24 | 3.22 | 1.14 | 0.78 | 8.27 | 1.92 | 4.23 | 6.92 | 5.38 | 1.08 | 6.61 | 2.07 | 1.29 |
| 25 | 2.90 | 1.14 | 0.88 | 8.82 | 2.17 | 5.33 | 5.83 | 5.65 | 1.14 | 8.48 | 1.92 | 1.14 |
| 26 | 2.42 | 1.24 | 0.98 | 8.93 | 2.22 | 9.63 | 5.56 | 5.74 | 1.45 | 5.06 | 1.92 | 0.87 |
| 27 | 2.02 | 1.40 | 1.08 | 9.29 | 2.32 | 13.27 | 5.33 | 5.20 | 1.92 | 3.68 | 1.66 | 3.33 |
| 28 | 1.76 | 1.59 | 1.08 | 2.93 | 2.37 | 5.87 | 4.24 | 4.64 | 3.48 | 4.78 | 1.24 | 0.68 |
| 29 | 1.34 | | 1.08 | 2.07 | 1.92 | 8.55 | 3.28 | 3.88 | 3.75 | 4.95 | 1.08 | 2.48 |
| 30 | 1.24 | | 1.08 | 12.35 | 1.92 | 8.60 | 3.02 | 3.54 | 2.54 | 4.32 | 0.87 | 0.64 |
| 31 | 0.98 | | 1.08 | | 1.71 | | 2.66 | 3.41 | | 3.09 | | 0.89 |
| TOTAL | 55.42 | 37.02 | 28.06 | 129.08 | 107.62 | 146.55 | 200.49 | 101.63 | 49.50 | 125.62 | 69.70 | 41.05 |
| AVERAGE | 1.79 | 1.32 | 0.91 | 4.30 | 3.47 | 4.89 | 6.47 | 3.28 | 1.65 | 4.05 | 2.32 | 1.32 |
| MAXIMUM | 4.23 | 1.92 | 1.08 | 12.35 | 10.50 | 13.50 | 13.63 | 5.74 | 3.75 | 8.48 | 4.46 | 3.33 |
| MINIMUM | 0.49 | 0.87 | 0.59 | 1.19 | 1.40 | 1.71 | 2.26 | 1.29 | 1.08 | 1.56 | 0.87 | 0.64 |

| ANNUAL | | | |
|---|---|---|---|
| TOTAL | AVERAGE | MAXIMUM | MINIMUM |
| 1091.74 | 2.99 | 13.63 | 0.49 |

1979/ 7/18 ( WED ) 14:11:40

STATION MALVASA CATCHMENT AREA 35 KM**2 UNIT : M**3/SEC 1970-YEAR

| DAY# | JAN. | FEB. | MAR. | APR. | MAY. | JUN. | JUL. | AUG. | SEP. | OCT. | NOV. | DEC. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.59 | 3.40 | 1.97 | 1.56 | 2.37 | 6.61 | 3.81 | 13.82 | 5.12 | 6.84 | 5.22 | 2.90 |
| 2 | 3.54 | 3.49 | 1.81 | 1.24 | 2.32 | 16.83 | 5.04 | 8.45 | 4.02 | 5.47 | 7.81 | 2.54 |
| 3 | 0.49 | 0.40 | 4.19 | 1.14 | 2.27 | 15.04 | 7.02 | 4.88 | 3.28 | 7.40 | 6.40 | 2.37 |
| 4 | 0.64 | 3.73 | 3.02 | 1.45 | 1.92 | 14.11 | 7.62 | 3.22 | 3.15 | 6.30 | 6.82 | 2.90 |
| 5 | 3.68 | 1.06 | 3.34 | 1.71 | 1.40 | 12.11 | 4.74 | 3.15 | 3.03 | 6.71 | 6.71 | 4.23 |
| 6 | 0.73 | 1.66 | 2.22 | 2.02 | 1.34 | 11.30 | 3.28 | 3.34 | 3.67 | 7.12 | 6.61 | 4.23 |
| 7 | 1.33 | 2.27 | 1.87 | 2.78 | 1.24 | 6.61 | 2.78 | 5.92 | 4.46 | 7.70 | 7.58 | 3.95 |
| 8 | 1.34 | 1.92 | 1.66 | 3.82 | 1.03 | 13.92 | 3.15 | 6.92 | 4.95 | 7.02 | 8.27 | 3.41 |
| 9 | 1.50 | 1.87 | 1.67 | 4.70 | 1.82 | 10.11 | 4.46 | 8.60 | 7.02 | 7.70 | 9.38 | 2.72 |
| 10 | 1.71 | 4.56 | 1.43 | 2.78 | 1.96 | 6.62 | 6.92 | 6.31 | 8.27 | 5.48 | 11.27 | 2.54 |
| 11 | 1.92 | 5.36 | 1.50 | 1.92 | 3.34 | 5.36 | 5.22 | 6.61 | 8.26 | 4.37 | 9.16 | 2.32 |
| 12 | 2.77 | 5.56 | 3.15 | 1.97 | 5.36 | 3.88 | 3.48 | 5.47 | 6.40 | 3.41 | 7.36 | 2.22 |
| 13 | 3.54 | 4.56 | 2.38 | 2.02 | 8.82 | 4.02 | 3.61 | 6.30 | 5.06 | 3.02 | 6.10 | 1.92 |
| 14 | 2.70 | 3.74 | 2.27 | 1.50 | 7.70 | 3.54 | 3.34 | 5.36 | 4.95 | 2.66 | 6.92 | 1.92 |
| 15 | 2.17 | 2.72 | 1.82 | 1.45 | 6.04 | 2.90 | 3.41 | 3.70 | 3.88 | 2.48 | 5.92 | 1.92 |
| 16 | 1.71 | 2.42 | 1.34 | 2.60 | 5.38 | 2.40 | 2.55 | 15.03 | 3.34 | 2.60 | 5.12 | 1.71 |
| 17 | 1.71 | 1.77 | 1.14 | 4.32 | 5.56 | 5.83 | 2.78 | 9.52 | 5.20 | 2.48 | 5.48 | 1.61 |
| 18 | 1.45 | 1.50 | 1.03 | 3.78 | 6.96 | 13.46 | 3.15 | 9.26 | 4.54 | 2.48 | 6.40 | 1.61 |
| 19 | 1.29 | 1.56 | 1.03 | 3.32 | 15.34 | 5.27 | 3.63 | 5.36 | 4.09 | 2.37 | 7.46 | 1.75 |
| 20 | 1.03 | 1.19 | 0.82 | 2.96 | 9.54 | 4.73 | 3.54 | 3.81 | 3.48 | 3.02 | 6.96 | 4.16 |
| 21 | 1.56 | 1.63 | 0.78 | 2.78 | 7.94 | 5.74 | 3.15 | 3.95 | 3.02 | 3.22 | 6.01 | 5.92 |
| 22 | 1.56 | 2.72 | 0.73 | 2.78 | 7.16 | 6.92 | 2.63 | 3.08 | 2.90 | 2.90 | 5.56 | 5.04 |
| 23 | 1.18 | 3.67 | 0.68 | 2.78 | 9.60 | 3.26 | 2.66 | 2.35 | 3.88 | 2.72 | 4.62 | 4.23 |
| 24 | 0.92 | 3.34 | 2.22 | 2.54 | 9.74 | 6.92 | 4.02 | 2.60 | 4.23 | 2.48 | 5.47 | 3.48 |
| 25 | 0.78 | 5.30 | 1.92 | 2.48 | 13.01 | 6.10 | 7.73 | 3.22 | 3.88 | 2.42 | 5.47 | 2.72 |
| 26 | 0.78 | 6.61 | 1.66 | 2.32 | 11.76 | 5.65 | 3.82 | 4.23 | 3.02 | 1.92 | 5.04 | 2.54 |
| 27 | 0.64 | 4.78 | 1.56 | 2.02 | 5.65 | 5.83 | 3.32 | 5.04 | 3.54 | 2.42 | 3.95 | 2.42 |
| 28 | 0.44 | 3.10 | 2.07 | 2.66 | 3.81 | 6.92 | 3.15 | 5.92 | 5.14 | 3.56 | 3.68 | 1.92 |
| 29 | 0.59 | | 2.32 | 3.34 | 4.09 | 4.70 | 3.02 | 7.12 | 5.74 | 3.74 | 3.08 | 1.76 |
| 30 | 0.54 | | 2.12 | 4.19 | 4.78 | 3.48 | 4.16 | 5.65 | 6.82 | 4.02 | 3.02 | 1.61 |
| 31 | 0.40 | | 2.02 | | 5.47 | | 6.12 | 5.47 | | 3.60 | | 1.61 |
| TOTAL | 38.89 | 75.78 | 57.65 | 75.82 | 174.42 | 226.64 | 126.92 | 182.98 | 138.34 | 129.83 | 188.85 | 86.18 |
| AVERAGE | 1.25 | 2.71 | 1.86 | 2.53 | 5.63 | 7.55 | 4.09 | 5.90 | 4.61 | 4.19 | 6.30 | 2.78 |
| MAXIMUM | 3.54 | 6.61 | 4.18 | 4.70 | 15.34 | 16.83 | 7.70 | 15.03 | 8.27 | 7.70 | 11.27 | 5.92 |
| MINIMUM | 0.40 | 3.40 | 0.68 | 1.14 | 1.03 | 2.90 | 2.55 | 2.35 | 2.90 | 1.92 | 3.02 | 1.61 |

| ANNUAL | | | |
|---|---|---|---|
| TOTAL | AVERAGE | MAXIMUM | MINIMUM |
| 1502.30 | 4.12 | 16.83 | 0.40 |

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STATION MALVASA CATCHMENT AREA 35 KM**2 UNIT : M**3/SEC 1971-YEAR

| *DAY* | JAN. | FEB. | MAR. | APR. | MAY. | JUN. | JUL. | AUG. | SEP. | OCT. | NOV. | DEC. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.60 | 1.42 | 1.76 | 5.12 | 1.91 | 3.62 | 6.11 | 3.32 | 8.57 | 1.85 | 5.30 | 1.85 |
| 2 | 1.51 | 1.51 | 2.02 | 7.49 | 1.91 | 3.12 | 4.33 | 3.18 | 7.86 | 2.18 | 6.22 | 2.80 |
| 3 | 1.51 | 1.51 | 2.13 | 9.52 | 2.36 | 2.70 | 3.82 | 5.66 | 5.12 | 1.85 | 11.25 | 3.26 |
| 4 | 1.64 | 1.46 | 2.16 | 5.84 | 2.41 | 2.97 | 2.47 | 6.20 | 3.32 | 2.08 | 9.10 | 3.43 |
| 5 | 1.85 | 1.46 | 2.75 | 3.76 | 2.36 | 3.26 | 2.07 | 6.07 | 2.75 | 2.30 | 9.10 | 2.24 |
| 6 | 2.36 | 1.42 | 2.97 | 2.58 | 2.03 | 3.14 | 1.80 | 6.11 | 2.36 | 2.92 | 5.30 | 1.96 |
| 7 | 4.04 | 1.51 | 2.46 | 2.30 | 5.75 | 2.92 | 4.58 | 2.97 | 2.13 | 2.75 | 3.68 | 1.96 |
| 8 | 8.15 | 1.42 | 2.37 | 2.18 | 3.33 | 3.42 | 19.35 | 11.87 | 2.64 | 2.31 | 6.94 | 1.76 |
| 9 | 7.86 | 1.42 | 2.13 | 1.45 | 2.53 | 2.30 | 20.67 | 8.32 | 2.69 | 2.08 | 2.97 | 1.34 |
| 10 | 7.93 | 1.68 | 1.85 | 1.68 | 3.12 | 2.52 | 20.90 | 8.05 | 6.63 | 2.22 | 5.30 | 1.51 |
| 11 | 5.48 | 2.19 | 1.68 | 1.68 | 3.33 | 2.81 | 17.06 | 6.66 | 2.02 | 2.58 | 5.12 | 1.34 |
| 12 | 7.37 | 2.80 | 1.26 | 1.68 | 4.19 | 1.34 | 16.45 | 5.06 | 3.68 | 6.11 | 4.58 | 1.42 |
| 13 | 2.69 | 2.97 | 1.17 | 1.56 | 4.56 | 1.68 | 17.80 | 2.86 | 3.63 | 5.41 | 4.48 | 1.38 |
| 14 | 2.36 | 3.54 | 1.32 | 1.51 | 7.66 | 1.34 | 12.35 | 3.54 | 4.58 | 5.23 | 7.86 | 1.22 |
| 15 | 1.36 | 4.26 | 1.22 | 2.30 | 4.58 | 1.38 | 7.12 | 3.00 | 2.46 | 3.82 | 6.57 | 1.64 |
| 16 | 2.19 | 3.68 | 1.17 | 2.58 | 3.14 | 2.30 | 4.04 | 2.76 | 2.30 | 3.54 | 5.30 | 1.17 |
| 17 | 2.40 | 3.18 | 1.34 | 3.62 | 2.65 | 2.52 | 2.97 | 2.24 | 3.20 | 2.98 | 2.41 | 1.38 |
| 18 | 4.14 | 2.86 | 1.55 | 5.75 | 2.36 | 1.30 | 2.69 | 2.24 | 2.80 | 2.08 | 1.85 | 1.76 |
| 19 | 4.18 | 2.64 | 4.26 | 4.40 | 2.36 | 1.56 | 2.18 | 3.54 | 2.13 | 2.30 | 3.68 | 3.26 |
| 20 | 4.26 | 2.52 | 3.40 | 4.04 | 2.19 | 1.51 | 2.13 | 3.26 | 2.75 | 3.12 | 6.04 | 3.62 |
| 21 | 3.97 | 2.41 | 3.40 | 3.90 | 1.85 | 1.34 | 2.69 | 3.62 | 5.48 | 3.43 | 2.98 | 3.58 |
| 22 | 3.54 | 2.19 | 3.04 | 2.53 | 2.30 | 1.72 | 13.27 | 2.76 | 5.12 | 3.54 | 4.98 | 4.58 |
| 23 | 3.76 | 1.85 | 2.86 | 2.64 | 2.86 | 1.51 | 13.63 | 4.11 | 2.86 | 6.94 | 4.40 | 3.68 |
| 24 | 3.40 | 1.76 | 2.36 | 2.69 | 2.97 | 1.51 | 21.48 | 4.33 | 2.30 | 4.76 | 3.68 | 2.36 |
| 25 | 2.52 | 1.69 | 2.69 | 2.52 | 2.58 | 1.42 | 9.65 | 2.86 | 2.52 | 2.92 | 1.90 | 2.41 |
| 26 | 1.35 | 1.76 | 5.75 | 2.69 | 2.41 | 2.52 | 5.40 | 2.64 | 2.52 | 2.86 | 3.68 | 3.54 |
| 27 | 1.63 | 1.66 | 5.84 | 2.75 | 3.97 | 1.72 | 3.18 | 4.62 | 1.85 | 2.92 | 4.11 | 5.52 |
| 28 | 1.68 | 1.60 | 5.93 | 2.75 | 5.26 | 2.75 | 2.86 | 6.39 | 1.51 | 5.97 | 4.33 | 4.02 |
| 29 | 1.74 | | 5.48 | 2.46 | 5.06 | 4.20 | 2.90 | 3.30 | 1.00 | 5.21 | 3.63 | 1.85 |
| 30 | 1.56 | | 5.57 | 2.08 | 7.29 | 5.48 | 3.26 | 14.72 | 1.42 | 7.12 | 2.52 | 1.85 |
| 31 | 1.46 | | 5.21 | | 3.35 | | 1.85 | 16.32 | | 7.10 | | 1.80 |
| TOTAL | 97.56 | 60.38 | 89.62 | 94.50 | 109.50 | 74.48 | 251.53 | 162.55 | 100.20 | 112.46 | 149.26 | 75.49 |
| AVERAGE | 3.15 | 2.16 | 2.88 | 3.28 | 3.53 | 2.48 | 8.11 | 5.24 | 3.34 | 3.63 | 4.98 | 2.44 |
| MAXIMUM | 8.35 | 4.26 | 5.93 | 9.52 | 8.56 | 6.20 | 21.48 | 16.32 | 8.57 | 7.12 | 11.25 | 5.52 |
| MINIMUM | 1.46 | 1.42 | 1.32 | 1.51 | 1.85 | 1.30 | 1.80 | 2.24 | 1.00 | 1.85 | 1.85 | 1.17 |

| ANNUAL | | | |
|---|---|---|---|
| TOTAL | AVERAGE | MAXIMUM | MINIMUM |
| 1380.53 | 3.78 | 21.48 | 1.00 |

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STATION MALVASA CATCHMENT AREA 35 KM**2 UNIT : M**3/SEC 1972-YEAR

| *DAY* | JAN. | FEB. | MAR. | APR. | MAY. | JUN. | JUL. | AUG. | SEP. | OCT. | NOV. | DEC. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.36 | 2.01 | 4.55 | 3.86 | 3.32 | 1.85 | 33.44 | 2.01 | 2.74 | 1.54 | 5.22 | 11.21 |
| 2 | 2.08 | 2.19 | 2.07 | 4.56 | 4.20 | 1.54 | 22.73 | 2.01 | 4.26 | 1.54 | 6.82 | 12.78 |
| 3 | 1.93 | 1.90 | 2.59 | 2.93 | 3.67 | 1.85 | 20.46 | 1.85 | 3.45 | 1.09 | 7.36 | 2.59 |
| 4 | 2.30 | 2.59 | 1.90 | 2.13 | 2.99 | 1.81 | 16.08 | 2.01 | 4.92 | 1.09 | 8.66 | 1.90 |
| 5 | 1.76 | 3.32 | 1.54 | 2.01 | 2.59 | 2.07 | 6.32 | 1.90 | 4.68 | 1.09 | 11.21 | 1.85 |
| 6 | 4.43 | 2.61 | 1.22 | 1.76 | 2.88 | 3.47 | 3.59 | 2.36 | 3.32 | 1.54 | 4.26 | 2.19 |
| 7 | 2.42 | 2.59 | 1.27 | 1.85 | 2.59 | 2.88 | 4.65 | 3.88 | 2.59 | 1.36 | 2.59 | 2.13 |
| 8 | 2.31 | 4.26 | 1.67 | 1.54 | 2.30 | 4.81 | 4.33 | 3.66 | 2.53 | 1.18 | 1.96 | 2.01 |
| 9 | 2.36 | 8.13 | 1.72 | 1.22 | 2.59 | 2.70 | 2.93 | 2.59 | 5.06 | 1.04 | 1.90 | 2.24 |
| 10 | 1.76 | 6.93 | 1.54 | 1.76 | 2.42 | 2.65 | 4.65 | 3.32 | 3.59 | 1.04 | 1.85 | 2.01 |
| 11 | 4.23 | 5.72 | 1.81 | 2.13 | 2.59 | 2.88 | 11.78 | 3.18 | 3.45 | 1.13 | 1.67 | 2.30 |
| 12 | 6.93 | 4.26 | 1.54 | 2.47 | 2.59 | 2.42 | 15.42 | 3.53 | 2.88 | 1.18 | 1.76 | 2.59 |
| 13 | 6.49 | 5.73 | 1.22 | 2.47 | 2.88 | 3.32 | 15.94 | 2.84 | 2.59 | 1.72 | 1.54 | 2.01 |
| 14 | 6.93 | 6.76 | 1.40 | 2.36 | 3.18 | 2.24 | 8.25 | 3.24 | 2.30 | 1.85 | 1.85 | 2.59 |
| 15 | 3.72 | 3.72 | 1.54 | 1.90 | 3.45 | 2.36 | 5.43 | 7.19 | 2.01 | 2.01 | 1.81 | 1.63 |
| 16 | 8.13 | 3.97 | 1.72 | 2.59 | 3.59 | 1.85 | 8.96 | 3.93 | 1.54 | 2.13 | 2.13 | 1.40 |
| 17 | 7.04 | 2.36 | 1.36 | 2.86 | 2.99 | 1.76 | 8.66 | 2.88 | 1.85 | 2.59 | 2.59 | 1.27 |
| 18 | 4.13 | 2.10 | 1.40 | 2.88 | 3.86 | 1.54 | 8.96 | 3.18 | 1.81 | 1.85 | 4.32 | 1.40 |
| 19 | 3.59 | 2.19 | 1.58 | 2.99 | 3.18 | 1.76 | 12.76 | 3.12 | 2.01 | 2.01 | 2.93 | 1.54 |
| 20 | 6.49 | 2.59 | 1.90 | 5.14 | 3.45 | 2.24 | 10.11 | 2.70 | 2.13 | 2.42 | 2.13 | 2.36 |
| 21 | 7.14 | 2.07 | 2.01 | 5.22 | 3.72 | 1.85 | 5.80 | 5.74 | 2.36 | 1.90 | 1.81 | 3.39 |
| 22 | 7.36 | 2.30 | 3.86 | 6.18 | 3.32 | 1.92 | 5.06 | 2.13 | 2.59 | 1.22 | 2.01 | 4.20 |
| 23 | 3.72 | 2.36 | 8.44 | 2.36 | 4.23 | 2.82 | 4.79 | 2.59 | 2.01 | 1.54 | 3.61 | 2.74 |
| 24 | 4.43 | 2.08 | 9.28 | 2.65 | 5.06 | 4.59 | 5.80 | 2.59 | 2.24 | 1.90 | 2.99 | 1.40 |
| 25 | 3.99 | 2.19 | 4.85 | 2.65 | 8.00 | 3.86 | 4.60 | 1.90 | 2.01 | 2.19 | 2.24 | 1.27 |
| 26 | 3.70 | 1.72 | 2.47 | 2.36 | 6.02 | 3.59 | 3.32 | 1.92 | 2.01 | 1.85 | 1.90 | 1.09 |
| 27 | 2.30 | 1.58 | 2.59 | 2.59 | 2.76 | 3.66 | 6.27 | 1.45 | 2.13 | 2.19 | 2.01 | 1.27 |
| 28 | 2.53 | 1.90 | 2.13 | 2.42 | 2.01 | 3.13 | 8.55 | 1.27 | 2.53 | 2.59 | 2.01 | 1.27 |
| 29 | 5.66 | 2.59 | 2.53 | 2.88 | 2.99 | 16.19 | 4.66 | 1.58 | 2.01 | 2.59 | 1.54 | 1.09 |
| 30 | 2.49 | | 3.59 | 2.13 | 2.43 | 26.98 | 5.88 | 1.27 | 1.81 | 2.01 | 1.49 | 1.04 |
| 31 | 2.59 | | 4.56 | | 2.13 | | 2.99 | 1.54 | | 2.53 | | 1.00 |
| TOTAL | 126.87 | 94.76 | 81.85 | 82.87 | 106.45 | 116.59 | 283.19 | 85.34 | 81.41 | 53.91 | 96.17 | 79.76 |
| AVERAGE | 4.09 | 3.27 | 2.64 | 2.76 | 3.43 | 3.89 | 9.14 | 2.75 | 2.71 | 1.74 | 3.21 | 2.57 |
| MAXIMUM | 8.13 | 8.13 | 9.28 | 6.18 | 8.02 | 26.98 | 33.44 | 7.19 | 5.06 | 2.59 | 11.21 | 12.78 |
| MINIMUM | 1.76 | 1.58 | 1.22 | 1.22 | 2.01 | 1.54 | 2.93 | 1.27 | 1.54 | 1.04 | 1.49 | 1.00 |

| ANNUAL | | | |
|---|---|---|---|
| TOTAL | AVERAGE | MAXIMUM | MINIMUM |
| 1289.12 | 3.52 | 33.44 | 1.00 |