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BASIN: RIO SAMALA

PARAMETERFILE

VALID DATE: 02-14-1990

TIME: 09:32:43

Nr Name Valid from

1	AREA	1979	1	1	204.30	246.00	25.00	225.70	102.08	58.00						
2	ELEV	1979	5	1	2700.00	2600.00	2500.00	2600.00	2000.00	1200.00						
3	VEG	1979	5	1	1.00	1.00	1.00	1.00	1.00	1.00						
4	LAKE	1979	5	1	0.00	0.00	0.00	0.00	0.00	0.00						
5	PELEV	1979	5	1	500.00	2490.00	2700.00	2960.00	345.00	760.00	500.00	2599.00	2800.00	500.00	2300.00	2440.00
					2760.00	1550.00	2316.00	2500.00	2560.00	2440.00	2680.00	2400.00	2380.00	2320.00		
7	QFACT	1979	5	1	0.10	0.10	0.10	0.10								
8	CP	1979	5	1	0.00	0.00	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
					0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00
					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
					0.00	0.25	0.25	0.25	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00
					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
					0.00	0.20	0.00	0.30	0.30	0.20	0.00	0.00	0.00	0.00	0.00	0.00
					0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
					0.00	0.35	0.15	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
					0.00	0.00	0.20	0.00	0.00	0.30	0.40	0.00	0.00	0.10	0.00	0.00
					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00
					0.00	0.00	0.00	0.60	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	CQ	1979	5	1	0.00	1.00	0.00	0.00								
11	EVAP	1979	5	1	4.10	4.20	5.00	4.70	3.80	3.10	3.90	3.90	3.10	3.40	3.80	4.10
13	PREPL	1979	5	1	0.00	0.00	16.00	0.00	14.00	5.00	0.00	0.00	0.00	0.00	21.00	0.00
					3.00	15.00	11.00	21.00	18.00	21.00	0.00	22.00	22.00	21.00		
14	PREPC	1979	5	1	0.00	0.00	1.09	0.00	1.03	1.43	0.00	0.00	0.00	0.00	1.15	0.00
					0.97	3.13	1.04	1.15	1.05	1.20	0.00	1.35	1.16	0.86		
16	SUBQR	1979	5	1	0.00000	3.00000	3.00000	1.00000	0.00000	2.00000						
19	FELEV	1979	5	1	0.00000											
20	PCORR	1979	5	1	0.75000	0.80000	0.75000	0.75000	0.75000	0.75000						
21	PCALT	1979	5	1	0.00000											
27	FC	1979	5	1	250.00000	250.00000	20.00000	250.00000	100.00000	100.00000						
28	LP	1979	5	1	200.00000	200.00000	20.00000	200.00000	80.00000	80.00000						
29	BETA	1979	5	1	1.50000	1.50000	1.00000	1.50000	1.00000	1.00000						
36	PERC	1979	5	1	1.00000	1.00000	0.00000	1.00000	4.00000	4.00000						
37	UZL	1979	5	1	30.00000	30.00000	0.00000	30.00000	50.00000	50.00000						
38	K0	1979	5	1	0.40000	0.40000	1.00000	0.40000	0.40000	0.40000						
39	K1	1979	5	1	0.03000	0.03000	0.00000	0.03000	0.02000	0.02000						
40	K2	1979	5	1	0.00200	0.00200	0.00000	0.00200	0.00400	0.00400						
43	CEVP	1979	5	1	0.70000	0.80000	0.90000	0.80000	0.90000	1.00000						
44	LAREA	1979	5	1	0.00000											
46	MAIBAS	1979	5	1	5.00000	5.00000	1.00000	5.00000	1.00000	1.00000						
47	BLAG	1979	5	1	1.50000	0.00000	1.00000	0.30000	0.20000	0.00000						
48	WREEL	1979	5	1	0.00000											
49	PATH	1979	5	1	4.00000	3.00000	4.00000	5.00000	6.00000	0.00000						

Figure A 1.1. Parameter list of the HBV model for the Río Samalá
(see also Figure A 1.2.).

Basin: RIO SAMALA
 Number of stations for precipitation: 22
 Precip. weights Valid Date: 02-14-1990
 Time: 09:32:00

Total weights corrected by multiplication with PCORR

Subcatment nr:							
Nr Name	1	2	3	4	5	6	Total (%)
1 EL TAMBOR	0	0	0	0	0	0	0
2 JUCHANEP	0	0	0	0	0	0	0
3 PACHUTE	0.40	0	0	0	0	0	9.31
4 RANCHO DE TEJA	0	0	0	0	0	0	0
5 BRILLANTES	0	0	0	0	0	0	0
6 SANTA MARTA	0	0	0	0	0	0.20	1.32
7 LAS FUENTES	0	0	0	0	0	0	0
8 SN. FCO. EL ALTO	0	0	0	0	0	0	0
9 LAS LAGUNAS	0	0	0	0	0	0	0
10 SAN LUIS	0	0	0	0	0	0	0
11 CANTEL PREC.	0	0	0	0.20	0.20	0	7.47
12 SIGÜILA	0	0	0	0	0	0	0
13 RECUERDO BARRIOS	0.45	0	0	0	0	0	10.48
14 STA. MARIA JESUS	0	0	0	0	0.30	0.60	7.46
15 ZUNIL	0	0	0	0	0.40	0.20	5.98
16 CAJOLA	0	0.25	0	0	0	0	7.48
17 CHIQUIRICHAPARA	0	0.25	0	0	0	0	7.48
18 LLANOS DEL PINAL	0	0.25	0.20	0	0.10	0	9.21
19 SAN ANTONIO SIJA	0	0	0	0	0	0	0
20 TOTONICAPAN	0	0	0.30	0.35	0	0	9.86
21 LABOR OVALLE	0	0.25	0.30	0.15	0	0	12.19
22 CUATRO CAMINOS	0.15	0	0.20	0.30	0	0	11.78

Figure A 1.2. Weight coefficients of the precipitation stations
 (CP-parameters) for the Río Samalá.

BASIN: RIO GRANDE DE SAN MIGUEL

PARAMETERFILE

VALID DATE: 01-25-1990

TIME: 10:47:11

Nr Name Valid from

1	AREA	1970	1	1	910.00	164.00	527.00	298.00	338.00						
2	ELEV	1970	1	1	426.00	320.00	257.00	324.00	420.00						
3	VEG	1970	1	1	1.00	1.00	0.95	0.99	1.00						
4	LAKE	1970	1	1	0.00	0.00	0.05	0.01	0.00						
5	PELEV	1970	1	1	350.00	20.00	860.00	80.00	140.00	105.00					
7	QFACT	1970	1	1	0.10	0.10	0.10	0.10							
8	CP	1970	1	1	0.40	0.00	0.30	0.00	0.30	0.00	0.00	0.00	0.00	0.20	0.40
					0.00	0.40	0.00	0.40	0.00	0.20	0.00	0.70	0.00	0.30	0.00
					0.00	0.50	0.00	0.30	0.20	0.00					
10	CG	1970	1	1	0.00	0.00	1.00	0.00							
11	EVAP	1970	1	1	7.19	8.33	8.16	7.35	5.25	4.50	5.11	4.82	3.88	4.31	4.97
															6.26
13	PREPL	1970	1	1	2.00	1.00	1.00	6.00	6.00	5.00					
14	PREPC	1970	1	1	1.40	0.70	1.00	1.00	1.10	0.90					
16	SUBQR	1970	1	1	4.00000	1.00000	0.00000	2.00000	3.00000						
19	FELEV	1970	1	1	0.00000										
20	PCORR	1970	1	1	0.65000	0.75000	0.75000	0.85000	0.90000						
21	PCALT	1970	1	1	0.00000										
27	FC	1970	1	1	225.00000	225.00000	275.00000	250.00000	275.00000						
28	LP	1970	1	1	175.00000	175.00000	195.00000	175.00000	195.00000						
29	BETA	1970	1	1	1.00000	1.00000	2.50000	1.80000	1.80000						
36	PERC	1970	1	1	0.55000	0.55000	4.00000	1.50000	2.00000						
37	UZL	1970	1	1	8.00000	8.00000	20.00000	20.00000	20.00000						
38	K0	1970	1	1	0.60000	0.60000	0.60000	0.60000	0.40000						
39	K1	1970	1	1	0.08000	0.08000	0.07000	0.07000	0.07000						
40	K2	1970	1	1	0.00600	0.00600	0.00500	0.00500	0.00400						
43	CEVP	1970	1	1	0.95000										
44	LAREA	1970	1	1	0.00000	0.00000	-102.00000	0.00000	0.00000						
46	MAIBAS	1970	1	1	1.00000	1.00000	2.00000	2.00000	2.00000						
48	WOREL	1970	1	1	0.00000	0.00000	1.00000	0.00000	0.00000						
49	PATH	1970	1	1	2.00000	3.00000	4.00000	5.00000	0.00000						
8	CP	1974	1	1	0.40	0.00	0.21	0.00	0.30	0.00	0.00	0.00	0.00	0.17	0.40
					0.00	0.40	0.00	0.35	0.00	0.20	0.00	0.70	0.00	0.26	0.00
					0.00	0.50	0.00	0.26	0.20	0.00					

Figure A 2.1. Parameter list of the HBV model for the Río Grande de San Miguel (see also Figure A 2.2).

Basin: RIO GRANDE DE SAN MIGUEL
 Number of stations for precipitation: 6
 Precip. weights Valid Date: 01-25-1990
 Time: 10:48:23

Total weights corrected by multiplication with PCORR

Subcatchment nr:						
Nr Name	1	2	3	4	5	Total (%)
1 SAN FRANCISCO GOTERA	0.40	0	0	0	0	14.19
2 OLONEGA	0	0	0.40	0.70	0.50	29.24
3 CIUDAD BARRIOS	0.30	0	0	0	0	10.64
4 EL PAPALON	0	0.20	0.40	0.30	0.30	20.99
5 BFCIO EL SITIO	0.30	0.40	0	0	0.20	17.24
6 SAN MIGUEL FENADESAL	0	0.40	0.20	0	0	7.69

Figure A 2.2. Weight coefficients of the precipitation stations
 (CP-parameters) for the Río Grande de San Miguel.

BASIN: RIO CHOLUTECA

PARAMETERFILE

VALID DATE: 01-25-1990

TIME: 10:44:10

Nr	Name	Valid from														
1	AREA	1979	1	1	1565.00	178.00	1228.00	1540.00	1859.00	594.00						
2	ELEV	1979	1	1	1170.00	1130.00	1000.00	850.00	750.00	450.00						
3	VEG	1979	1	1	1.00	1.00	1.00	1.00	1.00	1.00						
4	LAKE	1979	1	1	0.00	0.00	0.00	0.00	0.00	0.00						
5	PELEV	1979	1	1	1010.00	1580.00	1070.00	1360.00	960.00	890.00	1500.00	1320.00	1177.00	665.00	1250.00	790.00
					960.00	950.00	750.00	970.00	1315.00	600.00	1250.00	480.00	700.00	340.00	230.00	100.00
					50.00	50.00										
7	QFACT	1979	1	1	0.10	0.10	0.10									
8	CP	1979	1	1	0.00	0.10	0.00	0.30	0.35	0.15	0.00	0.10	0.00	0.00	0.00	0.00
					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.30	0.00	0.00	0.50	0.20
					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
					0.10	0.20	0.20	0.30	0.00	0.00	0.00	0.10	0.10	0.00	0.00	0.00
					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.40	0.00	0.10	0.00
					0.05	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
					0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.30
					0.00	0.00	0.05	0.00	0.00	0.10	0.25	0.10	0.00	0.00	0.00	0.00
					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.55	0.30	0.10	0.05
10	CQ	1979	1	1	0.00	0.00	1.00									
11	EVAP	1979	1	1	4.80	5.90	7.10	7.00	5.90	4.50	4.70	4.80	4.30	3.90	3.80	4.00
13	PREPL	1979	1	1	0.00	7.00	0.00	0.00	0.00	0.00	18.00	16.00	25.00	6.00	5.00	16.00
					5.00	17.00	20.00	15.00	14.00	16.00	0.00	19.00	20.00	0.00	22.00	23.00
					14.00	25.00										
14	PREPC	1979	1	1	0.00	1.01	0.00	0.00	0.00	0.00	0.98	0.94	0.82	0.84	0.40	1.00
					1.65	1.04	0.96	1.17	0.96	1.13	0.00	1.18	1.15	0.00	1.07	0.93
					1.41	1.05										
16	SUBGR	1979	1	1	1.00000	2.00000	0.00000	0.00000	0.00000	0.00000	3.00000					
20	PCORR	1979	1	1	0.85000	1.05000	1.00000	0.95000	0.65000	0.75000						
27	FC	1979	1	1	250.00000	300.00000	300.00000	300.00000	300.00000	300.00000	300.00000					
28	LP	1979	1	1	160.00000	200.00000	180.00000	180.00000	200.00000	200.00000	200.00000					
29	BETA	1979	1	1	2.00000	1.50000	1.50000	2.00000	2.00000	1.50000						
36	PERC	1979	1	1	0.40000	0.40000	0.35000	0.30000	0.25000	0.25000						
37	UZL	1979	1	1	10.00000	10.00000	5.00000	5.00000	5.00000	5.00000						
38	K0	1979	1	1	0.70000	0.80000	0.90000	0.90000	0.90000	0.90000						
39	K1	1979	1	1	0.30000	0.30000	0.20000	0.20000	0.15000	0.15000						
40	K2	1979	1	1	0.00900	0.00900	0.01200	0.01500	0.02000	0.02000						
41	DAMP	1979	1	1	0.30000											
43	CEVP	1979	1	1	0.75000	0.70000	0.80000	0.80000	0.90000	1.00000						
46	MAIBAS	1979	1	1	2.00000	1.00000	2.00000	2.00000	2.00000	1.00000						
47	BLAG	1979	1	1	0.00000	0.00000	0.00000	1.00000	0.00000	0.00000						
49	PATH	1979	1	1	2.00000	3.00000	4.00000	5.00000	6.00000	0.00000						
50	QRED	1979	1	1	0.00000	1.00000	1.00000	0.00000	0.00000	0.00000						
7	QFACT	1986	1	1	1.00	1.00	1.00									
13	PREPL	1986	1	1	0.00	5.00	0.00	6.00	25.00	5.00	0.00	2.00	5.00	6.00	5.00	5.00
					0.00	17.00	12.00	12.00	16.00	0.00	22.00	22.00	0.00	23.00	25.00	23.00
					5.00	25.00										
14	PREPC	1986	1	1	0.00	1.43	0.00	0.97	0.51	1.14	0.00	0.80	1.62	0.89	0.42	1.22
					0.00	1.04	0.87	1.01	1.20	0.00	1.37	0.84	0.00	0.96	0.69	0.95
					1.97	1.15										

Figure A 3.1. Parameter list of the HBV model for the Río Choluteca (see also Figure A 3.2.).

Basin: RIO CHOLUTECA
 Number of stations for precipitation: 26
 Precip. weights Valid Date: 01-25-1990
 Time: 10:45:24

Total weights corrected by multiplication with PCORR

Subcatcoent nr:								
Nr	Name	1	2	3	4	5	6	Total (%)
1	BATALLON	0	0	0	0	0	0	0
2	LA BREA	0.10	0	0	0	0	0	2.22
3	REVENTON	0	0	0	0	0	0	0
4	ZAMBRANO	0.30	0	0	0	0	0	6.67
5	TOMCONTIN	0.35	0	0	0	0	0	7.78
6	LA VENTA	0.15	0.30	0	0	0	0	4.27
7	LEPATERIQUE	0	0	0	0	0	0	0
8	EL SAUCE	0.10	0	0	0	0.20	0	6.25
9	NUEVO ROSARIO	0	0.50	0.10	0	0	0	3.62
10	EL PORVENIR	0	0.20	0.20	0	0	0	4.73
11	LAS CANAS	0	0	0.20	0	0	0	4.11
12	ZAMORANO	0	0	0.30	0	0	0	6.16
13	SABANAGRANDE	0	0	0	0	0	0	0
14	YUSCARAN	0	0	0	0.05	0	0	1.22
15	POTRERILLOS	0	0	0	0.40	0	0	9.78
16	MARAITA	0	0	0.10	0	0.30	0	8.11
17	GUINOPE	0	0	0.10	0.10	0	0	4.50
18	NUEVA ARMENIA	0	0	0	0	0	0	0
19	SAN LUCAS	0	0	0	0.05	0.05	0	2.23
20	OROPOLI	0	0	0	0.40	0	0	9.78
21	DANLI	0	0	0	0	0	0	0
22	TEXIGUAT	0	0	0	0	0.10	0	2.02
23	LIURE	0	0	0	0	0.25	0.53	10.24
24	LOS ENCUENTROS	0	0	0	0	0.10	0.30	4.85
25	CHOLUTECA	0	0	0	0	0	0.10	0.94
26	YUSGUARE	0	0	0	0	0	0.05	0.47

Figure A 3.2. Weight coefficients of the precipitation stations
 (CP parameters) for the Río Choluteca).

BASIN: RIO VIEJO CON LAGO DE APANAS

PARAMETERFILE

VALID DATE: 01-25-1990

TIME: 14:38:25

Nr Name Valid from

1	AREA	1972	1	1	493.00	0.00	381.00	469.00	347.00	200.00	122.00								
2	ELEV	1972	1	1	1153.00	900.00	950.00	850.00	656.00	435.00	180.00								
3	VEG	1972	1	1	1.00	0.00	1.00	1.00	0.99	1.00	1.00								
4	LAKE	1972	1	1	0.00	1.00	0.00	0.00	0.01	0.00	0.00								
5	PELEV	1972	1	1	1020.00	950.00	1320.00	990.00	970.00	1280.00	1032.00	1380.00	1078.00	900.00	840.00	540.00			
					1010.00	600.00	510.00	480.00	457.00	480.00	100.00	402.00	400.00	400.00	45.00				
7	QFACT	1972	1	1	0.10	0.10	0.10	1.00	1.00	0.10	0.10								
8	CP	1972	1	1	0.10	0.10	0.10	0.15	0.10	0.15	0.15	0.10	0.05	0.00	0.00	0.00			
					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	
					0.20	0.00	0.50	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
					0.00	0.00	0.15	0.00	0.05	0.00	0.15	0.00	0.45	0.10	0.05	0.05			
					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
					0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.30	0.25	0.20	0.00			
					0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.05	0.05	0.00	0.40			
					0.15	0.05	0.05	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
					0.00	0.00	0.40	0.30	0.05	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
					0.10	0.10	0.10	0.10	0.60										
10	CQ	1972	1	1	0.00	0.00	1.00	0.00	0.00	0.00	0.00								
11	EVAP	1972	1	1	7.30	8.40	8.90	9.40	7.20	5.50	6.10	6.30	5.30	4.90	5.50	6.40			
13	PREPL	1972	1	1	2.00	4.00	9.00	0.00	7.00	8.00	4.00	7.00	0.00	9.00	10.00	13.00			
					16.00	12.00	16.00	17.00	18.00	20.00	21.00	18.00	20.00	20.00	22.00				
14	PREPC	1972	1	1	1.19	1.19	1.30	1.00	0.92	1.38	0.81	1.57	1.00	0.62	1.00	1.07			
					1.16	0.75	0.90	1.21	0.91	0.85	1.26	1.17	1.02	0.81	1.21				
16	SUBQR	1972	1	1	0.00000	7.00000	0.00000	0.00000	1.00000	0.00000	6.00000	3.00000	0.00000						
18	QREG	1972	1	1	0.00000	4.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000						
20	PCORR	1972	1	1	1.00000	1.00000	0.80000	0.80000	0.80000	0.95000	0.95000	0.95000	0.95000						
21	PCALT	1972	1	1	0.00000														
27	FC	1972	1	1	150.00000	1.00000	180.00000												
28	LP	1972	1	1	100.00000	1.00000	100.00000												
29	BETA	1972	1	1	1.70000														
34	RSTEP	1972	1	1	0.00000	1.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000						
36	PERC	1972	1	1	2.00000	0.00000	1.00000												
37	UZL	1972	1	1	20.00000														
38	K0	1972	1	1	1.00000	1.00000	1.00000	1.00000	0.80000	0.80000	0.80000								
39	K1	1972	1	1	0.07000	1.00000	0.50000												
40	K2	1972	1	1	0.03000	1.00000	0.00500												
43	CEVP	1972	1	1	0.70000	0.80000	0.75000	0.80000	0.90000	0.95000	1.00000								
44	LAREA	1972	1	1	0.00000	50.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000						
46	MAIBAS	1972	1	1	3.00000	1.00000	2.00000	2.00000	1.00000	1.00000	1.00000	1.00000	1.00000						
47	BLAG	1972	1	1	0.00000	0.10000	0.30000	0.30000	0.35000	1.00000	0.00000								
49	PATH	1972	1	1	2.00000	3.00000	4.00000	5.00000	6.00000	7.00000	0.00000								
50	QRED	1972	1	1	0.00000	1.00000	0.00000	2.00000	0.00000	0.00000	0.00000	0.00000	0.00000						

Figure A 4.1. Parameter list of the HBV model for the Río Viejo including Lago de Apanás (see also Figure A 4.2.).

Basin: RIO VIEJO CON LAGO DE APANAS
 Number of stations for precipitation: 23
 Precip. weights Valid Date: 01-25-1990
 Time: 12:53:40

Total weights corrected by multiplication with PCORR

Subcatcment nr:								
Nr Name	1	2	3	4	5	6	7	Total (%)
1 La Porra	0.10	0.10	0	0	0	0	0	2.73
2 Mancotal	0.10	0.20	0	0	0	0	0	2.73
3 Los Horcones	0.10	0	0	0	0	0	0	2.73
4 Los Robles	0.15	0.50	0	0	0	0	0	4.09
5 La Porfia	0.10	0.20	0.15	0	0	0	0	5.25
6 El Vigia	0.15	0	0	0	0	0	0	4.09
7 Jinotega	0.15	0	0.05	0.15	0	0	0	8.04
8 Emp.Aranjuez	0.10	0	0	0	0	0	0	2.73
9 Sn.Raf.Norte	0.05	0	0.15	0	0	0	0	3.89
10 La Concordia	0	0	0	0	0	0	0	0
11 Los Potrerios	0	0	0.45	0	0	0	0	7.58
12 Sn.Lorenzo	0	0	0.10	0.30	0.05	0	0	8.82
13 Valle Sta.Cruz	0	0	0.05	0.25	0.05	0	0	6.94
14 Aguas Zarcas	0	0	0.05	0.20	0.05	0	0	5.90
15 La Lima	0	0	0	0	0	0	0	0
16 Sn.Isidro barba.	0	0	0	0.10	0.40	0	0	9.37
17 El Naranjo	0	0	0	0	0.15	0	0	2.73
18 Sebaco	0	0	0	0	0.05	0	0	0.91
19 Sta.Rosa Peñon	0	0	0	0	0.05	0	0.10	1.55
20 Sta.Barbara	0	0	0	0	0.20	0.40	0.10	8.49
21 Mina La India	0	0	0	0	0	0.30	0.10	3.79
22 Dario	0	0	0	0	0	0.05	0.10	1.17
23 Sn.Fco.Carnicero	0	0	0	0	0	0.25	0.60	6.47

Figure A 4.2. Weight coefficients of the precipitation stations
 (CP-parameters) for the Río Viejo including Lago de
 Apanás

BASIN: RIO GRANDE DE TARCOLES

PARAMETERFILE

VALID DATE: 01-26-1990

TIME: 16:38:12

Nr	Name	Valid from																
1	AREA	1969	1	1	93.30	136.10	166.30	69.90	120.80	147.60	57.10	38.00	201.50	217.90	217.80	171.70		
					107.40													
2	ELEV	1969	1	1	1450.00	1580.00	1170.00	1150.00	1180.00	850.00	1320.00	620.00	1300.00	1245.00	1020.00	910.00		
					450.00													
3	VEG	1969	1	1	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
					1.00													
4	LAKE	1969	1	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
					0.00													
5	PELEV	1969	1	1	1172.00	760.00	696.00	1870.00	1320.00	909.00	639.00	1017.00	1042.00	1780.00	1240.00	932.00		
					1162.00	940.00	850.00	1050.00	1290.00	1380.00	1100.00	1300.00	1280.00	1450.00	1260.00	1700.00		
					700.00	1177.00	1250.00	1460.00	2140.00	1100.00	2120.00	450.00	2000.00	1061.00	460.00	1320.00		
					471.00	1580.00	2564.00	1120.00	40.00	328.00	900.00	880.00	1020.00					
7	QFACT	1969	1	1	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
10	CQ	1969	1	1	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00				
11	EVAP	1969	1	1	4.00	4.70	5.20	5.00	4.00	3.50	3.50	4.00	3.70	3.50	3.50	3.70		
13	PREPL	1969	1	1	2.00	3.00	2.00	10.00	1.00	12.00	12.00	9.00	8.00	22.00	1.00	14.00		
					1.00	12.00	12.00	36.00	1.00	1.00	12.00	1.00	1.00	10.00	10.00	10.00		
					12.00	12.00	3.00	22.00	10.00	9.00	22.00	3.00	1.00	8.00	12.00	12.00		
					1.00	1.00	22.00	1.00	42.00	1.00	1.00	1.00	1.00					
14	PREPC	1969	1	1	0.95	1.03	0.97	1.00	1.22	0.86	0.96	0.76	1.30	1.03	1.11	1.04		
					0.98	0.96	0.95	0.97	1.08	1.06	0.80	1.03	0.98	0.97	1.24	1.21		
					1.30	1.06	1.65	1.73	0.88	0.97	2.00	0.97	0.77	0.97	1.01	1.60		
					1.07	1.05	1.50	0.94	0.87	1.38	1.98	1.87	1.18					
16	SUBGR	1969	1	1	0.00000	0.00000	4.00000	10.00000	0.00000	0.00000	9.00000	0.00000	2.00000					
					1.00000	0.00000	8.00000	3.00000	5.00000									
18	QREG	1969	1	1	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000					
					0.00000	0.00000	0.00000	0.00000	0.00000	0.00000								
19	FELEV	1969	1	1	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000					
					0.00000	0.00000	0.00000	0.00000	0.00000	0.00000								
20	PCORR	1969	1	1	1.00000	1.00000	1.00000	0.95000	0.95000	0.95000	0.95000	0.95000	0.95000					
					0.95000	1.00000	1.00000	1.00000	1.00000	1.00000								
21	PCALT	1969	1	1	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000					
					0.00000	0.00000	0.00000	0.00000	0.00000	0.00000								
27	FC	1969	1	1	400.00000	400.00000	100.00000	400.00000	400.00000	400.00000	400.00000	400.00000	400.00000					
					400.00000	400.00000	400.00000	400.00000	400.00000	400.00000								
28	LP	1969	1	1	300.00000	300.00000	50.00000	300.00000	300.00000	300.00000	300.00000	300.00000	300.00000					
					300.00000	300.00000	300.00000	300.00000	300.00000	300.00000								
29	BETA	1969	1	1	1.00000													
36	PERC	1969	1	1	3.00000	3.00000	2.00000	3.00000	3.00000	3.00000	3.00000	3.00000	3.00000					
					4.00000	3.00000	3.00000	3.00000	3.00000	3.00000								
37	UZI	1969	1	1	80.00000	80.00000	20.00000	80.00000	160.00000	160.00000	160.00000	160.00000	160.00000					
					160.00000	160.00000	160.00000	40.00000	40.00000	40.00000								
38	K0	1969	1	1	0.40000	0.40000	0.60000	0.40000	0.10000	0.40000	0.40000	0.40000	0.10000					
					0.10000	0.10000	0.10000	0.40000	0.40000	0.40000								
39	K1	1969	1	1	0.05000	0.05000	0.10000	0.05000	0.03000	0.05000	0.05000	0.05000	0.05000					
					0.03000	0.03000	0.03000	0.05000	0.05000	0.05000								
40	K2	1969	1	1	0.00500	0.01000	0.01000	0.00500	0.00500	0.00500	0.00500	0.00500	0.00500					
					0.00500	0.00500	0.00500	0.00500	0.00500	0.00500								
41	DAMP	1969	1	1	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000					
					0.00000	0.00000	0.00000	0.00000	0.00000	0.00000								
43	CEVP	1969	1	1	1.00000													
44	LAREA	1969	1	1	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000					
					0.00000	0.00000	0.00000	0.00000	0.00000	0.00000								
46	HAIBAS	1969	1	1	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000					
					1.00000	1.00000	1.00000	1.00000	1.00000	1.00000								
47	BLAG	1969	1	1	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000					
					0.00000	0.00000	0.00000	0.00000	0.00000	0.00000								
49	PATH	1969	1	1	4.00000	3.00000	4.00000	6.00000	6.00000	6.00000	8.00000	8.00000	12.00000					
					11.00000	11.00000	12.00000	13.00000	0.00000									

Figure A 5.1. Parameter list of the HBV model for the Río Grande de Tárcoles (except CP-parameters that are given in Figure A 5.2.).

Basin: RIO GRANDE DE TARCOLES
 Number of stations for precipitation: 45
 Precip. weights Valid Date: 01-26-1990
 Time: 16:40:43

Total weights corrected by multiplication with PCORR

Subcatment nr:														
Nr Name	1	2	3	4	5	6	7	8	9	10	11	12	13	Total (%)
1 San Jose	0	0	0.10	0.05	0	0	0	0	0	0	0	0	0	1.16
2 La Argentina	0	0	0	0	0	0	0	0	0	0.15	0.25	0	0	5.08
3 Atenas	0	0	0	0	0	0	0	0	0	0	0.20	0.10	0	3.54
4 Avance	0	0.10	0.07	0	0	0	0	0	0	0	0	0	0	1.47
5 Hda Concepcion	0	0.15	0.08	0	0	0	0	0	0	0	0	0	0	1.97
6 Lornessa	0	0	0.10	0.05	0	0.15	0	0	0	0	0	0	0	2.39
7 Turrucares	0	0	0	0	0	0	0	0.55	0	0	0	0.15	0	2.66
8 Palmares	0	0	0	0	0	0	0	0	0	0	0.50	0	0	6.35
9 Maranjo	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10 Rancho Redondo	0.35	0.05	0.02	0	0	0	0	0	0	0	0	0	0	2.50
11 Hda La Laguna	0	0.15	0.05	0	0	0	0	0	0	0	0	0	0	1.68
12 Aeropuerto	0	0	0	0.05	0.20	0.15	0.25	0.25	0	0	0	0.05	0	4.58
13 Desamparados	0	0.10	0.03	0	0	0	0	0	0	0	0	0	0	1.09
14 Fabio Baudrit	0	0	0	0	0	0	0	0	0.20	0.05	0	0.10	0	3.87
15 Ojo de Agua	0	0	0	0	0	0.25	0	0	0	0	0	0	0	2.05
16 Tacacora	0	0	0	0	0	0	0.10	0	0.30	0	0	0.05	0	4.17
17 Los Sitios	0.10	0	0.05	0.15	0	0	0	0	0	0	0	0	0	1.61
18 San Antonio	0	0.05	0.20	0	0	0	0	0	0	0	0	0	0	2.34
19 Salitral	0	0	0.05	0	0	0.20	0	0	0	0	0	0	0	2.12
20 San Juan de Dios	0	0.30	0	0	0	0	0	0	0	0	0	0	0	2.38
21 Guadalupe	0.15	0	0.15	0	0	0	0	0	0	0	0	0	0	2.27
22 San Jos. de Heredia	0.25	0	0	0.15	0	0	0	0	0	0	0	0	0	1.94
23 Sacramento	0	0	0	0	0.05	0	0.30	0	0.20	0	0	0	0	3.52
24 Monte de La Cruz	0	0	0	0.10	0.25	0	0	0	0	0	0	0	0	2.06
25 Villa Colon	0	0	0	0	0	0.25	0	0.20	0	0	0	0.10	0	3.47
26 Telegrafo Barva	0	0	0	0.30	0.25	0	0	0	0	0	0	0	0	2.84
27 La Luisa	0	0	0	0	0	0	0	0	0.05	0.35	0	0	0	5.01
28 La Palma	0.15	0	0	0.05	0	0	0	0	0	0	0	0	0	1.01
29 Corralillo	0	0.10	0	0	0	0	0	0	0	0	0	0	0	0.79
30 Coop. Maranjo	0	0	0	0	0	0	0	0	0	0.25	0	0	0	3.18
31 El Gallito	0	0	0	0.05	0.15	0	0.05	0	0	0	0	0	0	1.36
32 Esc. C. Ganaderia	0	0	0	0	0	0	0	0	0	0	0.05	0	0.80	5.65
33 El Alto Uba	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34 Sub. San Ramon	0	0	0	0	0	0	0	0	0	0.05	0	0	0	0.64
35 Emb. La Garita	0	0	0	0	0	0	0	0	0	0	0	0.40	0.20	5.26
36 Sto. Dom. del Roble	0	0	0	0	0.10	0	0.30	0	0.05	0	0	0.05	0	2.68
37 Presa La Garita	0	0	0	0	0	0	0	0	0	0	0	0	0	0
38 Tres Rios	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39 Volcan Poas	0	0	0	0	0	0	0	0	0.20	0.15	0	0	0	4.14
40 Sabana Norte	0	0	0.10	0.05	0	0	0	0	0	0	0	0	0	1.16
41 Bajo Laguna	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42 San Pedro Turruabares	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43 San Rafael Turruabares	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44 La Vibora	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45 Sub Maranjo	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Figure A 5.2. Weight coefficients of the precipitation stations
 (CP-parameters) for the Río Grande de Tárcoles.

BASIN: RIO BAYANO

PARAMETERFILE

VALID DATE: 01-26-1990

TIME: 19:52:16

Mr Name Valid from

1	AREA	1973	1	1	1058.00	619.00	972.00	632.00	0.00	201.00	150.00	214.00	322.00				
2	ELEV	1973	1	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
3	VEG	1973	1	1	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
4	LAKE	1973	1	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
5	PELEV	1973	1	1	30.00	70.00	80.00	85.00	60.00	15.00	100.00	30.00	5.00	50.00	400.00	10.00	
					100.00	40.00	100.00	385.00	0.00	0.00							
7	BFAC	1973	1	1	0.15	0.10	0.10	0.10	0.10	0.10	0.25	0.10	0.19	-1.00	0.10	0.10	
					0.00	0.00	0.00										
10	CR	1973	1	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
					0.00	0.00	0.00	0.00	0.00	0.00							
11	EVAP	1973	1	1	3.85	4.41	4.76	4.47	3.09	2.56	2.67	2.75	2.73	2.80	2.81	3.11	
14	PREPC	1973	1	1	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.40	
					0.75	1.00	0.94	1.00	1.00	1.00							
16	SUBOR	1973	1	1	1.00000	9.00000	7.00000	0.00000	4.00000	5.00000	0.00000	2.00000					
					0.00000												
18	QREG	1973	1	1	0.00000	0.00000	0.00000	0.00000	10.00000	0.00000	0.00000	0.00000					
					0.00000												
20	PCORR	1973	1	1	0.90000	1.20000	1.00000	0.90000	0.90000	1.30000	1.00000	1.20000					
					1.00000												
21	PCALT	1973	1	1	0.00000												
27	FC	1973	1	1	260.00000	260.00000	200.00000	280.00000	280.00000	250.00000	250.00000	200.00000					
					250.00000												
28	LP	1973	1	1	210.00000	210.00000	200.00000	210.00000	210.00000	200.00000	200.00000	150.00000					
					200.00000												
29	BETA	1973	1	1	4.00000	1.30000	1.30000	3.50000	3.50000	1.00000	1.00000	1.00000					
					1.00000												
36	PERC	1973	1	1	4.00000	4.00000	5.00000	4.00000	4.00000	6.00000	7.00000	6.00000					
					7.00000												
37	U2L	1973	1	1	25.00000	25.00000	25.00000	25.00000	25.00000	25.00000	20.00000	20.00000					
					20.00000												
38	K0	1973	1	1	0.80000												
39	K1	1973	1	1	0.30000	0.30000	0.30000	0.30000	0.30000	0.10000	0.20000	0.20000					
					0.20000												
40	K2	1973	1	1	0.06000	0.06000	0.06000	0.06000	0.06000	0.06000	0.06000	0.06000					
					0.06000												
43	CEVP	1973	1	1	1.00000	1.00000	1.00000	1.00000	0.71000	1.00000	1.00000	1.00000					
					1.00000												
44	LAREA	1973	1	1	0.00000	0.00000	0.00000	0.00000	-1.00000	0.00000	0.00000	0.00000					
					0.00000												
46	MAIBAS	1973	1	1	2.00000	2.00000	2.00000	1.00000	1.00000	1.00000	1.00000	2.00000					
					1.00000												
49	PATH	1973	1	1	5.00000	5.00000	5.00000	5.00000	7.00000	7.00000	9.00000	9.00000					
					0.00000												
13	PREPL	1977	1	1	3.00	3.00	1.00	12.00	2.00	0.00	1.00	0.00	3.00	0.00	13.00	14.00	
					11.00	3.00	5.00	0.00	0.00	0.00							
20	PCORR	1978	1	1	1.00000	1.20000	1.30000	1.00000	0.90000	1.30000	1.00000	1.20000					
					1.00000												
20	PCORR	1983	1	1	1.00000	1.20000	1.30000	1.00000	0.90000	1.40000	1.00000	1.00000					
					1.00000												
13	PREPL	1985	1	1	3.00	5.00	5.00	5.00	3.00	0.00	0.00	0.00	3.00	0.00	13.00	4.00	
					1.00	3.00	5.00	0.00	0.00	0.00							
14	PREPC	1985	1	1	1.00	0.94	0.94	1.18	1.37	1.00	1.00	1.00	1.10	1.00	1.35	0.70	
					1.03	0.87	0.82	0.00	0.00	0.00							
20	PCORR	1985	5	1	0.90000	1.20000	1.00000	0.90000	0.90000	1.40000	1.00000	1.00000					
					1.00000												

Figure A 6.1. Parameter list of the HBV model for the Rio Bayano
(except CP-parameters that are given in Figure A 6.2.).

Basin: RIO BAYANO
 Number of stations for precipitation: 18
 Precip. weights Valid Date: 01-26-1990
 Time: 19:54:15

Total weights corrected by multiplication with PCORR

Subcatcment nr:										
Nr Name	1	2	3	4	5	6	7	8	9	Total (%)
1 CHEPO	0	0	0	0	0	0	0.50	0.20	0.50	6.80
2 MAJE	0	0.40	0	0.10	0	0	0	0	0	8.38
3 BAYANO CAMPAMENTO	0	0.20	0.10	0.10	0.50	0.40	0.50	0	0.50	15.22
4 PIRIA	0.15	0	0.30	0.10	0	0	0	0	0	11.63
5 IPETI	0.25	0.30	0	0.35	0.25	0	0	0	0	15.62
6 TANARA	0	0	0	0	0	0	0	0	0	0
7 CHARARE	0	0	0	0	0	0	0	0	0	0
8 PACORA	0	0	0	0	0	0	0	0	0	0
9 PUEBLO NUEVO	0	0.10	0	0	0	0	0	0	0	1.76
10 CANAZAS ANTE ENBALSE	0	0	0	0	0	0	0	0	0	0
11 ALTOS DE PACORA	0	0	0	0	0	0	0	0.40	0	2.43
12 MARGANA	0	0	0.20	0	0	0.20	0	0	0	5.84
13 LOMA BONITA	0	0	0	0	0	0	0	0.20	0	1.22
14 AGUAS CLARAS	0	0	0.40	0.35	0.25	0.40	0	0.20	0	17.60
15 TORTI	0.60	0	0	0	0	0	0	0	0	13.52
16 CARTI	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0

Figure A 6.2. Weight coefficients of the precipitation stations
 (CP-parameters) for the Río Bayano.