

ANEXO IV

RESULTADOS OBTIDOS NO MODELO WEPP

Quadro IV.1 – Resultados do modelo WEPP para uma resolução de 10.

Resolução 10				
Classes de Erosão	Média de Erosão da Classe-EC	Nº de células-NC	EC*NC	(EC*NC)/ Σ NC
0 - 1/4	0.1250	209992	26249.0000	0.0676
1/4 - 1/2	0.3750	60394	22647.7500	0.0583
1/2 - 3/4	0.6250	30908	19317.5000	0.0497
3/4 - 1	0.8750	24087	21076.1250	0.0543
1 - 2	1.5000	47380	71070.0000	0.1830
2 - 3	2.5000	12221	30552.5000	0.0787
3 - 4	3.5000	3200	11200.0000	0.0288
> 4	4.5000	130	585.0000	0.0015
	Total	388312		
	Erosão média (t/ha/ano)	Média [(EC*NC)/ΣNC]		0.0652
		Desvio Padrão		0.0533

Quadro IV.2 – Resultados do modelo WEPP para uma resolução de 30.

Resolução 30				
Classes de Erosão	Média de Erosão da Classe-EC	Nº de células-NC	EC*NC	(EC*NC)/ Σ NC
0 - 1/4	0.1250	18801	2350.1250	0.0588
1/4 - 1/2	0.3750	9512	3567.0000	0.0892
1/2 - 3/4	0.6250	3734	2333.7500	0.0583
3/4 - 1	0.8750	2374	2077.2500	0.0519
1 - 2	1.5000	4145	6217.5000	0.1554
2 - 3	2.5000	1186	2965.0000	0.0741
3 - 4	3.5000	249	871.5000	0.0218
	Total	40001		
	Erosão média (t/ha/ano)	Média [(EC*NC)/ΣNC]		0.0728
		Desvio Padrão		0.0419

Quadro IV.3 – Resultados do modelo WEPP para uma resolução de 60.

Resolução 60				
Classes de Erosão	Média de Erosão da Classe-EC	Nº de células-NC	EC*NC	(EC*NC)/ Σ NC
0 - 1/4	0.1250	4466	558.2500	0.0637
1/4 - 1/2	0.3750	1692	634.5000	0.0723
1/2 - 3/4	0.6250	561	350.6250	0.0400
3/4 - 1	0.8750	737	644.8750	0.0735
1 - 2	1.5000	1008	1512.0000	0.1724
2 - 3	2.5000	268	670.0000	0.0764
3 - 4	3.5000	34	119.0000	0.0136
> 4	4.5000	4	18.0000	0.0021
	Total	8770		
	Erosão média (t/ha/ano)	Média [(EC*NC)/ΣNC]		0.0642
		Desvio Padrão		0.0521

Quadro IV.4 – Estatística zonal aplicada aos resultados da erosão obtidos no modelo WEEP para um “cell size” 10, que nos fornece a classe média.

Rowid	VALUE	COUNT	AREA	MIN	MAX	RANGE	MEAN	STD	SUM	VARIETY	MAJORITY	MINORITY	MEDIAN
1	121	388312	38831200	3	10	7	4.198021	1.62759	1630142	8	3	10	3

Quadro IV.5 – Estatística zonal aplicada aos resultados da erosão obtidos no modelo WEEP para um “cell size” 30, que nos fornece a classe média.

Rowid	VALUE	COUNT	AREA	MIN	MAX	RANGE	MEAN	STD	SUM	VARIETY	MAJORITY	MINORITY	MEDIAN
1	121	40001	36000900	3	9	6	4.20262	1.523913	168109	7	3	9	4

Quadro IV.6 – Estatística zonal aplicada aos resultados da erosão obtidos no modelo WEEP para um “cell size” 60, que nos fornece a classe média.

Rowid	VALUE	COUNT	AREA	MIN	MAX	RANGE	MEAN	STD	SUM	VARIETY	MAJORITY	MINORITY	MEDIAN
1	121	8770	31572000	3	10	7	4.211973	1.581497	36939	8	3	10	3

Relatório IV.1 - WEPP - "cell size" 10

Hillslopes: 721

Channels and Impoundments: 305

Summary:

92 storms produced 583.19 mm. of rainfall on an AVERAGE ANNUAL basis

19 events produced 2.91 mm. of runoff passing through the watershed outlet on an
AVERAGE ANNUAL basis

Average Annual Delivery From Channel Outlet:

Total contributing area to outlet = 3902.00 ha

Avg. Ann. Precipitation volume in contributing area = 22755929 m³/yrAvg. Ann. irrigation volume in contributing area = 0 m³/yrAvg. Ann. water discharge from outlet = 113529 m³/yr

Avg. Ann. sediment discharge from outlet = 760.6 tonnes/yr

Avg. Ann. Sed. delivery per unit area of watershed = 0.2 T/ha/yr

Sediment Delivery Ratio for Watershed = 0.260

Sediment Particle Information Leaving Channel:

Class	Diameter (mm)	Particle Composition					Fraction In Flow Exiting
		Specific Gravity	% Sand	% Silt	% Clay	% O.M.	

1 0.002 2.60 0.0 0.0 100.0 6.0 0.674

2 0.010 2.65 0.0 100.0 0.0 0.0 0.141

3 0.030 1.80 0.0 57.6 42.4 2.6 0.167

4 0.326 1.60 75.1 16.2 8.8 0.5 0.012

5 0.200 2.65 100.0 0.0 0.0 0.0 0.005

Distribution of Primary Particles and
Organic Matter in the Eroded Sediment:

type	fraction
clay	0.746
silt	0.239
sand	0.014
organic matter	0.045

Index of specific surface = $169.69 \text{ m}^2/\text{g}$ of total sediment

Enrichment ratio of specific surface = 4.37

Relatório IV.2 - WEPP - "cell size" 30

Hillslopes: 725

Channels and Impoundments: 337

Summary:

92 storms produced 583.19 mm. of rainfall on an AVERAGE ANNUAL basis

12 events produced 3.25 mm. of runoff passing through the watershed outlet on an
AVERAGE ANNUAL basis

Average Annual Delivery From Channel Outlet:

Total contributing area to outlet = 3619.55 ha

Avg. Ann. Precipitation volume in contributing area = 21108705 m³/yrAvg. Ann. irrigation volume in contributing area = 0 m³/yrAvg. Ann. water discharge from outlet = 117583 m³/yr

Avg. Ann. sediment discharge from outlet = 101.4 tonnes/yr

Avg. Ann. Sed. delivery per unit area of watershed = 0.0 T/ha/yr

Sediment Delivery Ratio for Watershed = 0.048

Sediment Particle Information Leaving Channel:

Class	Diameter (mm)	Particle Composition					Fraction In Flow Exiting
		Specific Gravity	% Sand	% Silt	% Clay	% O.M.	

1 0.002 2.60 0.0 0.0 100.0 29.4 0.380

2 0.010 2.65 0.0 100.0 0.0 0.0 0.172

3 0.030 1.80 0.0 67.5 32.5 9.6 0.421

4 0.300 1.60 73.7 18.5 7.8 2.3 0.019

5 0.200 2.65 100.0 0.0 0.0 0.0 0.008

Distribution of Primary Particles and
Organic Matter in the Eroded Sediment:

type	fraction
clay	0.518
silt	0.460
sand	0.022
organic matter	0.153

Index of specific surface = $179.68 \text{ m}^2/\text{g}$ of total sediment

Enrichment ratio of specific surface = 3.35

Relatório IV.3 - WEPP - "cell size" 60

Hillslopes: 755

Channels and Impoundments: 402

Summary:

92 storms produced 583.19 mm. of rainfall on an AVERAGE ANNUAL basis

8 events produced 3.59 mm. of runoff passing through the watershed outlet on an AVERAGE ANNUAL basis

Average Annual Delivery From Channel Outlet:

Total contributing area to outlet = 3178.84 ha

Avg. Ann. Precipitation volume in contributing area = 18538557 m³/yrAvg. Ann. irrigation volume in contributing area = 0 m³/yrAvg. Ann. water discharge from outlet = 114129 m³/yr

Avg. Ann. sediment discharge from outlet = 188.0 tonnes/yr

Avg. Ann. Sed. delivery per unit area of watershed = 0.1 T/ha/yr

Sediment Delivery Ratio for Watershed = 0.096

Sediment Particle Information Leaving Channel:

Class	Diameter (mm)	Particle Composition					Fraction In Flow Exiting
		Specific Gravity	% Sand	% Silt	% Clay	% O.M.	

1	0.002	2.60	0.0	0.0	100.0	6.0	0.372
2	0.010	2.65	0.0	100.0	0.0	0.0	0.151
3	0.030	1.80	0.0	57.6	42.4	2.6	0.465
4	0.326	1.60	75.1	16.2	8.8	0.5	0.008
5	0.200	2.65	100.0	0.0	0.0	0.0	0.003

Distribution of Primary Particles and
Organic Matter in the Eroded Sediment:

type	fraction
clay	0.570
silt	0.421
sand	0.009
organic matter	0.034

Index of specific surface = $131.71 \text{ m}^2/\text{g}$ of total sediment

Enrichment ratio of specific surface = 3.39

Quadro IV.7 - Escoamento observado na Estação Hidrométrica de Entradas e estimado pelo WEPP, por evento diário para um "cell size" de 10.

Dia	Mês	Ano	Estimado (m ³ /s)	Observado (m ³ /s)	Obs-Est	(Obs-Est) ²	Obs Média	Obs_média Obs	(Obs_média Obs) ²
1	1	1977	0.0001	4.62	4.6199	21.3438	0.3313	4.2887	18.3931
3	1	1977	1.8945	1.17	-0.7245	0.5249	0.3313	0.8387	0.7034
9	1	1977	1.6341	0.16	-1.4741	2.1729	0.3313	-0.1713	0.0293
1	3	1977	0.0000	1.17	1.1700	1.3689	0.3313	0.8387	0.7034
7	3	1977	0.0000	0.13	0.1300	0.0169	0.3313	-0.2013	0.0405
14	4	1977	0.0004	0.01	0.0097	0.0001	0.3313	-0.3213	0.1032
3	5	1977	0.0000	0	0.0000	0.0000	0.3313	-0.3313	0.1097
4	5	1977	0.0548	0	-0.0548	0.0030	0.3313	-0.3313	0.1097
11	10	1977	0.0054	0	-0.0054	0.0000	0.3313	-0.3313	0.1097
19	10	1977	0.0001	0	-0.0001	0.0000	0.3313	-0.3313	0.1097
26	11	1977	0.0001	0	-0.0001	0.0000	0.3313	-0.3313	0.1097
6	12	1977	0.0000	0.04	0.0400	0.0016	0.3313	-0.2913	0.0848
8	12	1977	0.0000	1.98	1.9800	3.9202	0.3313	1.6487	2.7183
10	12	1977	0.0000	0.61	0.6100	0.3721	0.3313	0.2787	0.0777
15	12	1977	0.0098	0.34	0.3302	0.1091	0.3313	0.0087	0.0001
20	12	1977	0.0314	1.11	1.0786	1.1634	0.3313	0.7787	0.6064
22	12	1977	1.7053	1.18	-0.5253	0.2759	0.3313	0.8487	0.7203
23	12	1977	0.9171	0.84	-0.0771	0.0059	0.3313	0.5087	0.2588
1	1	1978	0.0057	0.22	0.2143	0.0459	0.3313	-0.1113	0.0124
4	1	1978	0.0067	0.81	0.8033	0.6453	0.3313	0.4787	0.2292
30	1	1978	0.0004	0.14	0.1396	0.0195	0.3313	-0.1913	0.0366
2	2	1978	0.0000	0.11	0.1100	0.0121	0.3313	-0.2213	0.0490
8	2	1978	0.0000	0.06	0.0600	0.0036	0.3313	-0.2713	0.0736
15	3	1978	0.0001	0.06	0.0599	0.0036	0.3313	-0.2713	0.0736

Dia	Mês	Ano	Estimado (m ³ /s)	Observado (m ³ /s)	Obs-Est	(Obs-Est) ²	Obs Média	Obs_média Obs	(Obs_média Obs) ²
5	4	1978	0.0003	0.01	0.0097	0.0001	0.3313	-0.3213	0.1032
29	4	1978	0.0001	0.04	0.0399	0.0016	0.3313	-0.2913	0.0848
27	5	1978	0.0000	0	0.0000	0.0000	0.3313	-0.3313	0.1097
9	9	1978	0.2150	0	-0.2150	0.0462	0.3313	-0.3313	0.1097
3	10	1978	0.4609	0	-0.4609	0.2124	0.3313	-0.3313	0.1097
5	10	1978	0.0079	0	-0.0079	0.0001	0.3313	-0.3313	0.1097
20	10	1978	0.0001	0	-0.0001	0.0000	0.3313	-0.3313	0.1097
21	10	1978	5.1270	0	-5.1270	26.2864	0.3313	-0.3313	0.1097
11	11	1978	0.0000	0.12	0.1200	0.0144	0.3313	-0.2113	0.0446
22	11	1978	0.0142	0.01	-0.0042	0.0000	0.3313	-0.3213	0.1032
24	11	1978	0.0830	0.01	-0.0730	0.0053	0.3313	-0.3213	0.1032
25	11	1978	0.0623	0.01	-0.0523	0.0027	0.3313	-0.3213	0.1032
26	11	1978	1.5570	0.01	-1.5470	2.3933	0.3313	-0.3213	0.1032
27	11	1978	0.0069	0.01	0.0031	0.0000	0.3313	-0.3213	0.1032
29	11	1978	0.6727	0.02	-0.6527	0.4261	0.3313	-0.3113	0.0969
10	12	1978	0.0032	0.16	0.1569	0.0246	0.3313	-0.1713	0.0293
17	12	1978	0.0120	2.62	2.6080	6.8015	0.3313	2.2887	5.2382
24	12	1978	0.0001	0.24	0.2399	0.0575	0.3313	-0.0913	0.0083
30	12	1978	0.0002	0.58	0.5798	0.3362	0.3313	0.2487	0.0619
1	1	1979	0.0000	0.61	0.6100	0.3721	0.3313	0.2787	0.0777
12	1	1979	0.0000	0.2	0.2000	0.0400	0.3313	-0.1313	0.0172
16	1	1979	0.0000	0.11	0.1100	0.0121	0.3313	-0.2213	0.0490
21	1	1979	0.0001	0.89	0.8899	0.7919	0.3313	0.5587	0.3122
27	1	1979	0.0001	20.68	20.6799	427.6599	0.3313	20.3487	414.0703
14	2	1979	0.0001	29	28.9999	840.9965	0.3313	28.6687	821.8953
22	2	1979	0.0001	0.44	0.4399	0.1935	0.3313	0.1087	0.0118

Dia	Mês	Ano	Estimado (m ³ /s)	Observado (m ³ /s)	Obs-Est	(Obs-Est) ²	Obs Média	Obs_média Obs	(Obs_média Obs) ²
17	4	1979	0.0000	0.16	0.1600	0.0256	0.3313	-0.1713	0.0293
26	4	1979	0.0181	0.01	-0.0081	0.0001	0.3313	-0.3213	0.1032
21	5	1979	0.0000	0	0.0000	0.0000	0.3313	-0.3313	0.1097
28	5	1979	0.0002	0	-0.0002	0.0000	0.3313	-0.3313	0.1097
17	9	1979	0.0000	0	0.0000	0.0000	0.3313	-0.3313	0.1097
20	9	1979	0.0003	0	-0.0003	0.0000	0.3313	-0.3313	0.1097
10	11	1979	0.0000	0.02	0.0200	0.0004	0.3313	-0.3113	0.0969
22	12	1979	0.0001	0.01	0.0099	0.0001	0.3313	-0.3213	0.1032
31	12	1979	0.0003	0.01	0.0097	0.0001	0.3313	-0.3213	0.1032
21	1	1980	0.0118	0.02	0.0082	0.0001	0.3313	-0.3113	0.0969
26	1	1980	0.0173	0.01	-0.0073	0.0001	0.3313	-0.3213	0.1032
4	2	1980	0.0000	0.01	0.0100	0.0001	0.3313	-0.3213	0.1032
13	2	1980	0.0000	0.01	0.0100	0.0001	0.3313	-0.3213	0.1032
14	2	1980	0.0109	0.01	-0.0009	0.0000	0.3313	-0.3213	0.1032
15	2	1980	0.0160	0.01	-0.0060	0.0000	0.3313	-0.3213	0.1032
20	2	1980	0.0004	0.07	0.0696	0.0048	0.3313	-0.2613	0.0683
21	2	1980	0.6172	0.04	-0.5772	0.3331	0.3313	-0.2913	0.0848
26	2	1980	0.0001	0.03	0.0299	0.0009	0.3313	-0.3013	0.0908
5	4	1980	0.0000	0.01	0.0100	0.0001	0.3313	-0.3213	0.1032
16	4	1980	0.0002	0.29	0.2898	0.0840	0.3313	-0.0413	0.0017
21	4	1980	0.1262	0.03	-0.0962	0.0093	0.3313	-0.3013	0.0908
25	4	1980	0.0003	0.01	0.0097	0.0001	0.3313	-0.3213	0.1032
4	6	1980	0.0000	0	0.0000	0.0000	0.3313	-0.3313	0.1097
23	9	1980	2.3500	0	-2.3500	5.5227	0.3313	-0.3313	0.1097
18	10	1980	25.3345	0	-25.3345	641.8389	0.3313	-0.3313	0.1097
20	10	1980	0.0001	0	-0.0001	0.0000	0.3313	-0.3313	0.1097

Dia	Mês	Ano	Estimado (m ³ /s)	Observado (m ³ /s)	Obs-Est	(Obs-Est) ²	Obs Média	Obs_média Obs	(Obs_média Obs) ²
7	1	1981	0.0000	0	0.0000	0.0000	0.3313	-0.3313	0.1097
22	1	1981	0.0000	0.01	0.0100	0.0001	0.3313	-0.3213	0.1032
26	1	1981	0.0000	0.01	0.0100	0.0001	0.3313	-0.3213	0.1032
13	2	1981	0.0000	0.01	0.0100	0.0001	0.3313	-0.3213	0.1032
15	2	1981	0.0000	0.01	0.0100	0.0001	0.3313	-0.3213	0.1032
11	3	1981	0.0003	0	-0.0003	0.0000	0.3313	-0.3313	0.1097
17	4	1981	0.0002		-0.0002	0.0000	0.3313	-0.3313	0.1097
18	4	1981	0.0158	0	-0.0158	0.0002	0.3313	-0.3313	0.1097
22	4	1981	0.0001	0	-0.0001	0.0000	0.3313	-0.3313	0.1097
23	4	1981	6.3857	0	-6.3857	40.7774	0.3313	-0.3313	0.1097
24	4	1981	0.7441	0	-0.7441	0.5536	0.3313	-0.3313	0.1097
27	4	1981	0.0172	0	-0.0172	0.0003	0.3313	-0.3313	0.1097
10	5	1981	0.0001	0	-0.0001	0.0000	0.3313	-0.3313	0.1097
11	5	1981	2.4660	0	-2.4660	6.0814	0.3313	-0.3313	0.1097
28	9	1981	0.0001	0	-0.0001	0.0000	0.3313	-0.3313	0.1097
29	10	1981	0.0001	0	-0.0001	0.0000	0.3313	-0.3313	0.1097
4	11	1981	1.3416	0	-1.3416	1.8000	0.3313	-0.3313	0.1097
5	11	1981	0.0001	0	-0.0001	0.0000	0.3313	-0.3313	0.1097
7	11	1981	0.0001	0	-0.0001	0.0000	0.3313	-0.3313	0.1097
8	11	1981	9.5305	0	-9.5305	90.8302	0.3313	-0.3313	0.1097
16	11	1981	0.0002	0	-0.0002	0.0000	0.3313	-0.3313	0.1097
2	1	1982	0.0001	0.39	0.3899	0.1520	0.3313	0.0587	0.0034
26	1	1982	0.0025	0.11	0.1075	0.0116	0.3313	-0.2213	0.0490
6	2	1982	0.0000	0.02	0.0200	0.0004	0.3313	-0.3113	0.0969
20	2	1982	0.0002	0.14	0.1398	0.0195	0.3313	-0.1913	0.0366
23	2	1982	0.0000	0.11	0.1100	0.0121	0.3313	-0.2213	0.0490

Dia	Mês	Ano	Estimado (m ³ /s)	Observado (m ³ /s)	Obs-Est	(Obs-Est) ²	Obs Média	Obs_média Obs	(Obs_média Obs) ²
24	2	1982	0.0223	0.08	0.0578	0.0033	0.3313	-0.2513	0.0631
3	3	1982	0.0002	0.02	0.0198	0.0004	0.3313	-0.3113	0.0969
5	3	1982	0.0091	0.02	0.0109	0.0001	0.3313	-0.3113	0.0969
21	3	1982	0.0002	0.01	0.0099	0.0001	0.3313	-0.3213	0.1032
29	3	1982	0.0299	0.01	-0.0199	0.0004	0.3313	-0.3213	0.1032
9	4	1982	0.0000	0.01	0.0100	0.0001	0.3313	-0.3213	0.1032
27	4	1982	0.0100	0.01	0.0000	0.0000	0.3313	-0.3213	0.1032
28	4	1982	0.0121	0.01	-0.0021	0.0000	0.3313	-0.3213	0.1032
3	5	1982	0.0001	0	-0.0001	0.0000	0.3313	-0.3313	0.1097
13	5	1982	0.1065	0	-0.1065	0.0113	0.3313	-0.3313	0.1097
4	9	1982	0.0160	0	-0.0160	0.0003	0.3313	-0.3313	0.1097
27	9	1982	0.0000	0	0.0000	0.0000	0.3313	-0.3313	0.1097
29	9	1982	0.0001	0	-0.0001	0.0000	0.3313	-0.3313	0.1097
3	10	1982	0.0450	0	-0.0450	0.0020	0.3313	-0.3313	0.1097
19	10	1982	0.0002	0	-0.0002	0.0000	0.3313	-0.3313	0.1097
5	11	1982	0.0001	0	-0.0001	0.0000	0.3313	-0.3313	0.1097
8	12	1982	0.0001	0	-0.0001	0.0000	0.3313	-0.3313	0.1097
20	12	1982	0.0015	0	-0.0015	0.0000	0.3313	-0.3313	0.1097
24	12	1982	0.0000	0	0.0000	0.0000	0.3313	-0.3313	0.1097
5	1	1983	0.0300	0	-0.0300	0.0009	0.3313	-0.3313	0.1097
28	1	1983	0.0000	0	0.0000	0.0000	0.3313	-0.3313	0.1097
1	2	1983	0.0000	0	0.0000	0.0000	0.3313	-0.3313	0.1097
14	2	1983	0.0000	0	0.0000	0.0000	0.3313	-0.3313	0.1097
21	2	1983	0.0128	0	-0.0128	0.0002	0.3313	-0.3313	0.1097
28	2	1983	0.0001	0	-0.0001	0.0000	0.3313	-0.3313	0.1097
1	3	1983	0.0043	0	-0.0043	0.0000	0.3313	-0.3313	0.1097

Dia	Mês	Ano	Estimado (m ³ /s)	Observado (m ³ /s)	Obs-Est	(Obs-Est) ²	Obs Média	Obs_média Obs	(Obs_média Obs) ²
20	4	1983	0.0000	0.01	0.0100	0.0001	0.3313	-0.3213	0.1032
29	4	1983	0.0000	0	0.0000	0.0000	0.3313	-0.3313	0.1097
19	9	1983	0.0000	0	0.0000	0.0000	0.3313	-0.3313	0.1097
7	10	1983	0.0000	0	0.0000	0.0000	0.3313	-0.3313	0.1097
9	10	1983	0.0000	0	0.0000	0.0000	0.3313	-0.3313	0.1097
24	10	1983	17.8434	0	-17.8434	318.3869	0.3313	-0.3313	0.1097
26	10	1983	2.8626	0	-2.8626	8.1942	0.3313	-0.3313	0.1097
29	11	1983	0.0001	0.12	0.1199	0.0144	0.3313	-0.2113	0.0446
4	12	1983	0.0233	0.04	0.0167	0.0003	0.3313	-0.2913	0.0848
9	12	1983	0.0001	0.03	0.0299	0.0009	0.3313	-0.3013	0.0908
12	12	1983	0.0000	0.04	0.0400	0.0016	0.3313	-0.2913	0.0848
13	12	1983	0.9260	0.03	-0.8960	0.8027	0.3313	-0.3013	0.0908
4	1	1984	0.0128	0.06	0.0472	0.0022	0.3313	-0.2713	0.0736
25	1	1984	0.0002	0.07	0.0699	0.0049	0.3313	-0.2613	0.0683
3	2	1984	0.0000	0.04	0.0400	0.0016	0.3313	-0.2913	0.0848
6	3	1984	0.0000	0.01	0.0100	0.0001	0.3313	-0.3213	0.1032
15	3	1984	0.0002	0	-0.0002	0.0000	0.3313	-0.3313	0.1097
20	3	1984	0.0006	0.12	0.1194	0.0143	0.3313	-0.2113	0.0446
10	4	1984	0.0000	0.01	0.0100	0.0001	0.3313	-0.3213	0.1032
26	4	1984	0.0002	0.03	0.0298	0.0009	0.3313	-0.3013	0.0908
27	4	1984	1.5144	0.03	-1.4844	2.2034	0.3313	-0.3013	0.0908
28	4	1984	0.0001	0.04	0.0399	0.0016	0.3313	-0.2913	0.0848
1	5	1984	10.9516	0.01	-10.9416	119.7180	0.3313	-0.3213	0.1032
4	5	1984	0.0001	0.01	0.0099	0.0001	0.3313	-0.3213	0.1032
11	8	1984	0.0013	0	-0.0013	0.0000	0.3313	-0.3313	0.1097
15	10	1984	0.0003	0	-0.0003	0.0000	0.3313	-0.3313	0.1097

Dia	Mês	Ano	Estimado (m ³ /s)	Observado (m ³ /s)	Obs-Est	(Obs-Est) ²	Obs Média	Obs_média Obs	(Obs_média Obs) ²
16	10	1984	2.8186	0	-2.8186	7.9445	0.3313	-0.3313	0.1097
18	10	1984	0.9939	0	-0.9939	0.9878	0.3313	-0.3313	0.1097
22	10	1984	0.0053	0	-0.0053	0.0000	0.3313	-0.3313	0.1097
28	10	1984	0.5614	0	-0.5614	0.3152	0.3313	-0.3313	0.1097
21	11	1984	0.0056	0	-0.0056	0.0000	0.3313	-0.3313	0.1097
16	12	1984	0.0001	0.09	0.0899	0.0081	0.3313	-0.2413	0.0582
11	1	1985	0.0001	0.04	0.0399	0.0016	0.3313	-0.2913	0.0848
28	1	1985	0.0000	0.23	0.2300	0.0529	0.3313	-0.1013	0.0103
7	2	1985	0.0255	1.01	0.9845	0.9692	0.3313	0.6787	0.4607
8	2	1985	0.0000	1.66	1.6600	2.7556	0.3313	1.3287	1.7655
13	2	1985	0.0001	0.94	0.9399	0.8835	0.3313	0.6087	0.3705
14	2	1985	0.0000	0.63	0.6300	0.3969	0.3313	0.2987	0.0892
3	3	1985	0.0000	0.1	0.1000	0.0100	0.3313	-0.2313	0.0535
27	3	1985	0.0000	0.01	0.0100	0.0001	0.3313	-0.3213	0.1032
7	4	1985	0.0011	0.01	0.0089	0.0001	0.3313	-0.3213	0.1032
23	5	1985	0.0001	0	-0.0001	0.0000	0.3313	-0.3313	0.1097
6	9	1985	0.0001	0	-0.0001	0.0000	0.3313	-0.3313	0.1097
20	9	1985	0.0002	0	-0.0002	0.0000	0.3313	-0.3313	0.1097
11	10	1985	0.0106	0	-0.0106	0.0001	0.3313	-0.3313	0.1097
13	10	1985	0.0009	0	-0.0009	0.0000	0.3313	-0.3313	0.1097
4	11	1985	0.0000	0	0.0000	0.0000	0.3313	-0.3313	0.1097
3	12	1985	0.0001	0	-0.0001	0.0000	0.3313	-0.3313	0.1097
16	12	1985	0.0001	0.94	0.9399	0.8835	0.3313	0.6087	0.3705
15	2	1986	0.0000	0.94	0.9400	0.8836	0.3313	0.6087	0.3705
16	2	1986	0.0168	0.94	0.9232	0.8522	0.3313	0.6087	0.3705
28	2	1986	0.0004	0.12	0.1197	0.0143	0.3313	-0.2113	0.0446

Dia	Mês	Ano	Estimado (m ³ /s)	Observado (m ³ /s)	Obs-Est	(Obs-Est) ²	Obs Média	Obs_média Obs	(Obs_média Obs) ²
10	3	1986	0.0000	0.17	0.1700	0.0289	0.3313	-0.1613	0.0260
13	3	1986	0.0076	0.09	0.0824	0.0068	0.3313	-0.2413	0.0582
6	4	1986	0.0001	0.94	0.9399	0.8834	0.3313	0.6087	0.3705
11	4	1986	0.0001	0.07	0.0699	0.0049	0.3313	-0.2613	0.0683
13	4	1986	0.0000	0.03	0.0300	0.0009	0.3313	-0.3013	0.0908
28	4	1986	0.0000	0.01	0.0100	0.0001	0.3313	-0.3213	0.1032
30	5	1986	0.0000	0	0.0000	0.0000	0.3313	-0.3313	0.1097
5	11	1986	0.0142	0	-0.0142	0.0002	0.3313	-0.3313	0.1097
6	11	1986	0.0000	0	0.0000	0.0000	0.3313	-0.3313	0.1097
9	11	1986	0.0000	0	0.0000	0.0000	0.3313	-0.3313	0.1097
10	11	1986	1.2172	0	-1.2172	1.4816	0.3313	-0.3313	0.1097
17	11	1986	0.0007	0.01	0.0093	0.0001	0.3313	-0.3213	0.1032
10	12	1986	0.0001	0.01	0.0099	0.0001	0.3313	-0.3213	0.1032
12	12	1986	0.0000	0.01	0.0100	0.0001	0.3313	-0.3213	0.1032
13	12	1986	0.0000	0.01	0.0100	0.0001	0.3313	-0.3213	0.1032
17	1	1987	0.0002	0.06	0.0598	0.0036	0.3313	-0.2713	0.0736
21	1	1987	0.0003	0.04	0.0397	0.0016	0.3313	-0.2913	0.0848
10	2	1987	0.0001	0.18	0.1800	0.0324	0.3313	-0.1513	0.0229
23	3	1987	0.0000	0.01	0.0100	0.0001	0.3313	-0.3213	0.1032
6	4	1987	0.0002	0.01	0.0098	0.0001	0.3313	-0.3213	0.1032
7	4	1987	0.0196	0.02	0.0004	0.0000	0.3313	-0.3113	0.0969
10	4	1987	0.0001	0.02	0.0199	0.0004	0.3313	-0.3113	0.0969
15	4	1987	0.0000	0.01	0.0100	0.0001	0.3313	-0.3213	0.1032
10	5	1987	0.0134	0	-0.0134	0.0002	0.3313	-0.3313	0.1097
14	5	1987	0.0002	0	-0.0002	0.0000	0.3313	-0.3313	0.1097
15	5	1987	0.0050	0	-0.0050	0.0000	0.3313	-0.3313	0.1097

Dia	Mês	Ano	Estimado (m ³ /s)	Observado (m ³ /s)	Obs-Est	(Obs-Est) ²	Obs Média	Obs_média Obs	(Obs_média Obs) ²
20	5	1987	0.0000	0	0.0000	0.0000	0.3313	-0.3313	0.1097
22	9	1987	0.0907	0	-0.0907	0.0082	0.3313	-0.3313	0.1097
22	10	1987	0.0002	0	-0.0002	0.0000	0.3313	-0.3313	0.1097
24	10	1987	0.0337	0	-0.0337	0.0011	0.3313	-0.3313	0.1097
2	11	1987	0.0000	0.09	0.0900	0.0081	0.3313	-0.2413	0.0582
25	11	1987	0.0000	0.02	0.0200	0.0004	0.3313	-0.3113	0.0969
26	11	1987	0.0001	0.02	0.0199	0.0004	0.3313	-0.3113	0.0969
27	11	1987	0.0000	0.02	0.0200	0.0004	0.3313	-0.3113	0.0969
6	12	1987	0.0000	0.34	0.3400	0.1156	0.3313	0.0087	0.0001
30	12	1987	0.0000	0.08	0.0800	0.0064	0.3313	-0.2513	0.0631
1	1	1988	0.0000	0.11	0.1100	0.0121	0.3313	-0.2213	0.0490
2	1	1988	0.0171	0.08	0.0629	0.0040	0.3313	-0.2513	0.0631
3	1	1988	0.0000	0.07	0.0700	0.0049	0.3313	-0.2613	0.0683
7	1	1988	0.0015	0.18	0.1786	0.0319	0.3313	-0.1513	0.0229
13	1	1988	0.6785	1.05	0.3716	0.1380	0.3313	0.7187	0.5166
10	2	1988	0.0000	0.12	0.1200	0.0144	0.3313	-0.2113	0.0446
14	3	1988	0.0003	0.01	0.0097	0.0001	0.3313	-0.3213	0.1032
26	3	1988	0.0000	0.01	0.0100	0.0001	0.3313	-0.3213	0.1032
27	3	1988	0.0206	0.01	-0.0106	0.0001	0.3313	-0.3213	0.1032
3	4	1988	0.0000	0	0.0000	0.0000	0.3313	-0.3313	0.1097
5	4	1988	0.2006	0	-0.2006	0.0403	0.3313	-0.3313	0.1097
15	4	1988	0.0000	0	0.0000	0.0000	0.3313	-0.3313	0.1097
19	4	1988	0.0000	0	0.0000	0.0000	0.3313	-0.3313	0.1097
29	4	1988	0.0001	0	-0.0001	0.0000	0.3313	-0.3313	0.1097
26	5	1988	0.0003	0	-0.0003	0.0000	0.3313	-0.3313	0.1097
23	9	1988	0.0000	0	0.0000	0.0000	0.3313	-0.3313	0.1097

Dia	Mês	Ano	Estimado (m ³ /s)	Observado (m ³ /s)	Obs-Est	(Obs-Est) ²	Obs Média	Obs_média Obs	(Obs_média Obs) ²
5	10	1988	0.0000	0	0.0000	0.0000	0.3313	-0.3313	0.1097
11	10	1988	1.4029	0	-1.4029	1.9682	0.3313	-0.3313	0.1097
8	11	1988	0.0051	6.42	6.4150	41.1516	0.3313	6.0887	37.0725
10	11	1988	0.0141	0.49	0.4759	0.2265	0.3313	0.1587	0.0252
11	11	1988	0.0000	0.61	0.6100	0.3721	0.3313	0.2787	0.0777
30	11	1988	0.0000	0.17	0.1700	0.0289	0.3313	-0.1613	0.0260
11	12	1988	0.0104	0.05	0.0396	0.0016	0.3313	-0.2813	0.0791
30	12	1988	0.0001	0.02	0.0199	0.0004	0.3313	-0.3113	0.0969
25	1	1989	0.0001	0.02	0.0199	0.0004	0.3313	-0.3113	0.0969
6	2	1989	0.0096	0.02	0.0104	0.0001	0.3313	-0.3113	0.0969
8	2	1989	0.0001	0.03	0.0299	0.0009	0.3313	-0.3013	0.0908
23	2	1989	0.0000	0.01	0.0100	0.0001	0.3313	-0.3213	0.1032
7	3	1989	0.0000	0.02	0.0200	0.0004	0.3313	-0.3113	0.0969
4	4	1989	0.0208	0.01	-0.0108	0.0001	0.3313	-0.3213	0.1032
6	4	1989	0.0000	0.01	0.0100	0.0001	0.3313	-0.3213	0.1032
14	4	1989	0.0118	0.08	0.0682	0.0046	0.3313	-0.2513	0.0631
25	4	1989	0.0002	0.01	0.0098	0.0001	0.3313	-0.3213	0.1032
1	5	1989	0.0000	0.01	0.0100	0.0001	0.3313	-0.3213	0.1032
27	5	1989	0.0000	0	0.0000	0.0000	0.3313	-0.3313	0.1097
13	8	1989	0.0000	0	0.0000	0.0000	0.3313	-0.3313	0.1097
10	10	1989	0.0000	0.01	0.0100	0.0001	0.3313	-0.3213	0.1032
11	10	1989	0.2517	0.01	-0.2417	0.0584	0.3313	-0.3213	0.1032
3	11	1989	0.0001	0.01	0.0099	0.0001	0.3313	-0.3213	0.1032
18	11	1989	0.0010	0.56	0.5590	0.3125	0.3313	0.2287	0.0523
19	11	1989	0.0000	14.42	14.4200	207.9352	0.3313	14.0887	198.4919
6	12	1989	0.0000	22.95	22.9500	526.7016	0.3313	22.6187	511.6063

Dia	Mês	Ano	Estimado (m ³ /s)	Observado (m ³ /s)	Obs-Est	(Obs-Est) ²	Obs Média	Obs_média Obs	(Obs_média Obs) ²
4	1	1990	0.0000	1.11	1.1100	1.2321	0.3313	0.7787	0.6064
28	1	1990	0.0002	1.08	1.0798	1.1661	0.3313	0.7487	0.5606
2	2	1990	0.0001	0.27	0.2699	0.0728	0.3313	-0.0613	0.0038
3	2	1990	0.0295	0.19	0.1605	0.0258	0.3313	-0.1413	0.0200
18	2	1990	0.0001	0.03	0.0299	0.0009	0.3313	-0.3013	0.0908
19	2	1990	0.0151	0.03	0.0149	0.0002	0.3313	-0.3013	0.0908
20	2	1990	0.0000	0.02	0.0200	0.0004	0.3313	-0.3113	0.0969
21	4	1990	0.0008	0.01	0.0092	0.0001	0.3313	-0.3213	0.1032
30	10	1990	10.3416	0	-10.3416	106.9477	0.3313	-0.3313	0.1097
10	11	1990	0.0063	0	-0.0063	0.0000	0.3313	-0.3313	0.1097
12	11	1990	0.0045	0	-0.0045	0.0000	0.3313	-0.3313	0.1097
20	12	1990	0.0000	0.06	0.0600	0.0036	0.3313	-0.2713	0.0736

Fonte: Os valores observados de escoamento (m³/s) na Estação Hidrométrica de Entradas foram retirados do SNIRH, 2009.

Quadro IV.8 - Escoamento observado na Estação Hidrométrica de Entradas e estimado pelo WEPP, por evento diário para um "cell size" de 30.

Dia	Mês	Ano	Estimado (m ³ /s)	Observado (m ³ /s)	Obs-Est	(Obs-Est) ²	Obs Média	Obs_média Obs	(Obs_média Obs) ²
3	1	1977	1.7899	1.17	-0.6199	0.3843	0.4301	0.7399	0.5474
9	1	1977	1.9877	0.16	-1.8277	3.3403	0.4301	-0.2701	0.0730
14	4	1977	0.0000	0.01	0.0100	0.0001	0.4301	-0.4201	0.1765
4	5	1977	0.2052	0	-0.2052	0.0421	0.4301	-0.4301	0.1850
11	10	1977	0.0039	0	-0.0039	0.0000	0.4301	-0.4301	0.1850
19	10	1977	0.0120	0	-0.0120	0.0001	0.4301	-0.4301	0.1850
8	11	1977	0.0065	0	-0.0065	0.0000	0.4301	-0.4301	0.1850
3	12	1977	0.0089	0.04	0.0311	0.0010	0.4301	-0.3901	0.1522
15	12	1977	0.0495	0.34	0.2905	0.0844	0.4301	-0.0901	0.0081
20	12	1977	0.0800	1.11	1.0300	1.0609	0.4301	0.6799	0.4622
22	12	1977	1.8956	1.18	-0.7156	0.5120	0.4301	0.7499	0.5623
23	12	1977	1.1137	0.84	-0.2737	0.0749	0.4301	0.4099	0.1680
1	1	1978	0.0300	0.22	0.1900	0.0361	0.4301	-0.2101	0.0441
4	1	1978	0.0363	0.81	0.7737	0.5987	0.4301	0.3799	0.1443
30	1	1978	0.0116	0.14	0.1284	0.0165	0.4301	-0.2901	0.0842
2	2	1978	0.0001	0.11	0.1099	0.0121	0.4301	-0.3201	0.1025
5	4	1978	0.0026	0.01	0.0074	0.0001	0.4301	-0.4201	0.1765
9	9	1978	0.5122	0	-0.5122	0.2623	0.4301	-0.4301	0.1850
3	10	1978	0.4926	0	-0.4926	0.2426	0.4301	-0.4301	0.1850
5	10	1978	0.0682	0	-0.0682	0.0047	0.4301	-0.4301	0.1850
20	10	1978	0.0088	0	-0.0088	0.0001	0.4301	-0.4301	0.1850
21	10	1978	5.0682	0	-5.0682	25.6863	0.4301	-0.4301	0.1850
22	11	1978	0.0204	0.01	-0.0104	0.0001	0.4301	-0.4201	0.1765
24	11	1978	0.1583	0.01	-0.1483	0.0220	0.4301	-0.4201	0.1765

Dia	Mês	Ano	Estimado (m ³ /s)	Observado (m ³ /s)	Obs-Est	(Obs-Est) ²	Obs Média	Obs_média Obs	(Obs_média Obs) ²
25	11	1978	0.1037	0.01	-0.0937	0.0088	0.4301	-0.4201	0.1765
26	11	1978	1.7694	0.01	-1.7594	3.0955	0.4301	-0.4201	0.1765
27	11	1978	0.0254	0.01	-0.0154	0.0002	0.4301	-0.4201	0.1765
29	11	1978	0.8584	0.02	-0.8384	0.7029	0.4301	-0.4101	0.1682
30	11	1978	0.0079	0.03	0.0221	0.0005	0.4301	-0.4001	0.1601
10	12	1978	0.0152	0.16	0.1448	0.0210	0.4301	-0.2701	0.0730
17	12	1978	0.0308	2.62	2.5892	6.7037	0.4301	2.1899	4.7956
30	12	1978	0.0127	0.58	0.5673	0.3219	0.4301	0.1499	0.0225
1	1	1979	0.0137	0.61	0.5963	0.3556	0.4301	0.1799	0.0324
21	1	1979	0.0004	0.89	0.8896	0.7914	0.4301	0.4599	0.2115
14	2	1979	0.0000	29	29.0000	840.9983	0.4301	28.5699	816.2383
26	4	1979	0.0235	0.01	-0.0135	0.0002	0.4301	-0.4201	0.1765
8	11	1979	0.0025	0.02	0.0176	0.0003	0.4301	-0.4101	0.1682
31	12	1979	0.0030	0.01	0.0070	0.0000	0.4301	-0.4201	0.1765
21	1	1980	0.0252	0.02	-0.0052	0.0000	0.4301	-0.4101	0.1682
26	1	1980	0.0694	0.01	-0.0594	0.0035	0.4301	-0.4201	0.1765
14	2	1980	0.0369	0.01	-0.0269	0.0007	0.4301	-0.4201	0.1765
15	2	1980	0.0520	0.01	-0.0420	0.0018	0.4301	-0.4201	0.1765
20	2	1980	0.0372	0.07	0.0328	0.0011	0.4301	-0.3601	0.1297
21	2	1980	0.8266	0.04	-0.7866	0.6187	0.4301	-0.3901	0.1522
26	2	1980	0.0000	0.03	0.0300	0.0009	0.4301	-0.4001	0.1601
21	4	1980	0.2118	0.03	-0.1818	0.0330	0.4301	-0.4001	0.1601
25	4	1980	0.3057	0.01	-0.2957	0.0874	0.4301	-0.4201	0.1765
9	9	1980	0.0001	0	-0.0001	0.0000	0.4301	-0.4301	0.1850
23	9	1980	2.2001	0	-2.2001	4.8404	0.4301	-0.4301	0.1850
18	10	1980	24.8962	0	-24.8962	619.8198	0.4301	-0.4301	0.1850

Dia	Mês	Ano	Estimado (m ³ /s)	Observado (m ³ /s)	Obs-Est	(Obs-Est) ²	Obs Média	Obs_média Obs	(Obs_média Obs) ²
20	10	1980	0.0054	0	-0.0054	0.0000	0.4301	-0.4301	0.1850
29	12	1980	0.0040	0.01	0.0060	0.0000	0.4301	-0.4201	0.1765
11	3	1981	0.0007	0	-0.0007	0.0000	0.4301	-0.4301	0.1850
21	3	1981	0.0081	0	-0.0081	0.0001	0.4301	-0.4301	0.1850
18	4	1981	0.0614	0	-0.0614	0.0038	0.4301	-0.4301	0.1850
23	4	1981	6.3057	0	-6.3057	39.7616	0.4301	-0.4301	0.1850
24	4	1981	0.8242	0	-0.8242	0.6793	0.4301	-0.4301	0.1850
27	4	1981	0.0368	0	-0.0368	0.0014	0.4301	-0.4301	0.1850
11	5	1981	2.8825	0	-2.8825	8.3088	0.4301	-0.4301	0.1850
20	10	1981	0.0049	0	-0.0049	0.0000	0.4301	-0.4301	0.1850
4	11	1981	1.4083	0	-1.4083	1.9834	0.4301	-0.4301	0.1850
5	11	1981	0.0072	0	-0.0072	0.0001	0.4301	-0.4301	0.1850
7	11	1981	0.0294	0	-0.0294	0.0009	0.4301	-0.4301	0.1850
8	11	1981	9.6935	0	-9.6935	93.9641	0.4301	-0.4301	0.1850
6	12	1981	0.0207	0.01	-0.0107	0.0001	0.4301	-0.4201	0.1765
26	1	1982	0.0060	0.11	0.1040	0.0108	0.4301	-0.3201	0.1025
20	2	1982	0.0001	0.14	0.1400	0.0196	0.4301	-0.2901	0.0842
24	2	1982	0.0632	0.08	0.0168	0.0003	0.4301	-0.3501	0.1226
5	3	1982	0.0385	0.02	-0.0185	0.0003	0.4301	-0.4101	0.1682
29	3	1982	0.0662	0.01	-0.0562	0.0032	0.4301	-0.4201	0.1765
27	4	1982	0.0162	0.01	-0.0062	0.0000	0.4301	-0.4201	0.1765
28	4	1982	0.0405	0.01	-0.0305	0.0009	0.4301	-0.4201	0.1765
3	5	1982	0.0015	0	-0.0015	0.0000	0.4301	-0.4301	0.1850
13	5	1982	0.1925	0	-0.1925	0.0371	0.4301	-0.4301	0.1850
4	9	1982	0.0174	0	-0.0174	0.0003	0.4301	-0.4301	0.1850
29	9	1982	0.0014	0	-0.0014	0.0000	0.4301	-0.4301	0.1850

Dia	Mês	Ano	Estimado (m ³ /s)	Observado (m ³ /s)	Obs-Est	(Obs-Est) ²	Obs Média	Obs_média Obs	(Obs_média Obs) ²
3	10	1982	0.1065	0	-0.1065	0.0113	0.4301	-0.4301	0.1850
5	11	1982	0.0001	0	-0.0001	0.0000	0.4301	-0.4301	0.1850
20	12	1982	0.0213	0	-0.0213	0.0005	0.4301	-0.4301	0.1850
5	1	1983	0.0716	0	-0.0716	0.0051	0.4301	-0.4301	0.1850
21	2	1983	0.0198	0	-0.0198	0.0004	0.4301	-0.4301	0.1850
1	3	1983	0.0603	0	-0.0603	0.0036	0.4301	-0.4301	0.1850
24	10	1983	17.9354	0	-17.9354	321.6771	0.4301	-0.4301	0.1850
26	10	1983	2.5581	0	-2.5581	6.5439	0.4301	-0.4301	0.1850
4	12	1983	0.0542	0.04	-0.0142	0.0002	0.4301	-0.3901	0.1522
9	12	1983	0.0067	0.03	0.0233	0.0005	0.4301	-0.4001	0.1601
12	12	1983	0.0199	0.04	0.0201	0.0004	0.4301	-0.3901	0.1522
13	12	1983	1.4435	0.03	-1.4135	1.9980	0.4301	-0.4001	0.1601
19	12	1983	0.0007	3.19	3.1893	10.1719	0.4301	2.7599	7.6170
4	1	1984	0.0142	0.06	0.0458	0.0021	0.4301	-0.3701	0.1370
27	4	1984	1.5687	0.03	-1.5387	2.3675	0.4301	-0.4001	0.1601
28	4	1984	0.0047	0.04	0.0353	0.0012	0.4301	-0.3901	0.1522
1	5	1984	11.4105	0.01	-11.4005	129.9712	0.4301	-0.4201	0.1765
11	8	1984	0.0001	0	-0.0001	0.0000	0.4301	-0.4301	0.1850
15	10	1984	0.0050	0	-0.0050	0.0000	0.4301	-0.4301	0.1850
16	10	1984	2.6754	0	-2.6754	7.1577	0.4301	-0.4301	0.1850
18	10	1984	0.9206	0	-0.9206	0.8476	0.4301	-0.4301	0.1850
22	10	1984	0.0246	0	-0.0246	0.0006	0.4301	-0.4301	0.1850
28	10	1984	0.7369	0	-0.7369	0.5431	0.4301	-0.4301	0.1850
21	11	1984	0.0237	0	-0.0237	0.0006	0.4301	-0.4301	0.1850
11	1	1985	0.0000	0.04	0.0400	0.0016	0.4301	-0.3901	0.1522
2	2	1985	0.0008	0.09	0.0892	0.0080	0.4301	-0.3401	0.1157

Dia	Mês	Ano	Estimado (m ³ /s)	Observado (m ³ /s)	Obs-Est	(Obs-Est) ²	Obs Média	Obs_média Obs	(Obs_média Obs) ²
7	2	1985	0.0536	1.01	0.9564	0.9147	0.4301	0.5799	0.3363
13	2	1985	0.0000	0.94	0.9400	0.8836	0.4301	0.5099	0.2600
7	4	1985	0.0073	0.01	0.0027	0.0000	0.4301	-0.4201	0.1765
6	9	1985	0.0000	0	0.0000	0.0000	0.4301	-0.4301	0.1850
11	10	1985	0.0312	0	-0.0312	0.0010	0.4301	-0.4301	0.1850
13	10	1985	0.0291	0	-0.0291	0.0008	0.4301	-0.4301	0.1850
16	2	1986	0.0349	0.94	0.9051	0.8191	0.4301	0.5099	0.2600
28	2	1986	0.0112	0.12	0.1088	0.0118	0.4301	-0.3101	0.0962
2	3	1986	0.0010	0.09	0.0890	0.0079	0.4301	-0.3401	0.1157
13	3	1986	0.0165	0.09	0.0735	0.0054	0.4301	-0.3401	0.1157
6	4	1986	0.0001	0.94	0.9400	0.8835	0.4301	0.5099	0.2600
11	4	1986	0.0000	0.07	0.0700	0.0049	0.4301	-0.3601	0.1297
5	11	1986	0.0390	0	-0.0390	0.0015	0.4301	-0.4301	0.1850
6	11	1986	0.0020	0	-0.0020	0.0000	0.4301	-0.4301	0.1850
9	11	1986	0.0074	0	-0.0074	0.0001	0.4301	-0.4301	0.1850
10	11	1986	1.2888	0	-1.2888	1.6609	0.4301	-0.4301	0.1850
17	11	1986	0.0114	0.01	-0.0014	0.0000	0.4301	-0.4201	0.1765
10	12	1986	0.0013	0.01	0.0087	0.0001	0.4301	-0.4201	0.1765
12	12	1986	0.0077	0.01	0.0023	0.0000	0.4301	-0.4201	0.1765
13	12	1986	0.0038	0.01	0.0063	0.0000	0.4301	-0.4201	0.1765
21	1	1987	0.1273	0.04	-0.0873	0.0076	0.4301	-0.3901	0.1522
10	2	1987	0.0000	0.18	0.1800	0.0324	0.4301	-0.2501	0.0626
19	3	1987	0.0039	0.02	0.0161	0.0003	0.4301	-0.4101	0.1682
7	4	1987	0.0486	0.02	-0.0286	0.0008	0.4301	-0.4101	0.1682
10	5	1987	0.0172	0	-0.0172	0.0003	0.4301	-0.4301	0.1850
14	5	1987	0.0227	0	-0.0227	0.0005	0.4301	-0.4301	0.1850

Dia	Mês	Ano	Estimado (m ³ /s)	Observado (m ³ /s)	Obs-Est	(Obs-Est) ²	Obs Média	Obs_média Obs	(Obs_média Obs) ²
15	5	1987	0.0497	0	-0.0497	0.0025	0.4301	-0.4301	0.1850
22	9	1987	0.2745	0	-0.2745	0.0754	0.4301	-0.4301	0.1850
24	10	1987	0.1120	0	-0.1120	0.0125	0.4301	-0.4301	0.1850
26	11	1987	0.0078	0.02	0.0123	0.0002	0.4301	-0.4101	0.1682
2	1	1988	0.0454	0.08	0.0346	0.0012	0.4301	-0.3501	0.1226
3	1	1988	0.0090	0.07	0.0610	0.0037	0.4301	-0.3601	0.1297
7	1	1988	0.0360	0.18	0.1440	0.0207	0.4301	-0.2501	0.0626
13	1	1988	0.9013	1.05	0.1487	0.0221	0.4301	0.6199	0.3843
14	1	1988	0.0058	1.16	1.1542	1.3321	0.4301	0.7299	0.5327
14	3	1988	0.0173	0.01	-0.0073	0.0001	0.4301	-0.4201	0.1765
27	3	1988	0.0351	0.01	-0.0251	0.0006	0.4301	-0.4201	0.1765
5	4	1988	0.3589	0	-0.3589	0.1288	0.4301	-0.4301	0.1850
26	4	1988	0.0089	0	-0.0089	0.0001	0.4301	-0.4301	0.1850
29	4	1988	0.0091	0	-0.0091	0.0001	0.4301	-0.4301	0.1850
25	5	1988	0.0027	0	-0.0027	0.0000	0.4301	-0.4301	0.1850
26	5	1988	0.2294	0	-0.2294	0.0526	0.4301	-0.4301	0.1850
23	9	1988	0.0000	0	0.0000	0.0000	0.4301	-0.4301	0.1850
11	10	1988	1.5117	0	-1.5117	2.2851	0.4301	-0.4301	0.1850
8	11	1988	0.0288	6.42	6.3912	40.8473	0.4301	5.9899	35.8787
10	11	1988	0.0596	0.49	0.4304	0.1852	0.4301	0.0599	0.0036
11	11	1988	0.0002	0.61	0.6098	0.3718	0.4301	0.1799	0.0324
11	12	1988	0.0281	0.05	0.0219	0.0005	0.4301	-0.3801	0.1445
14	1	1989	0.0037	0.05	0.0463	0.0021	0.4301	-0.3801	0.1445
6	2	1989	0.0230	0.02	-0.0030	0.0000	0.4301	-0.4101	0.1682
8	2	1989	0.0240	0.03	0.0060	0.0000	0.4301	-0.4001	0.1601
9	2	1989	0.0078	0.02	0.0122	0.0001	0.4301	-0.4101	0.1682

Dia	Mês	Ano	Estimado (m ³ /s)	Observado (m ³ /s)	Obs-Est	(Obs-Est) ²	Obs Média	Obs_média Obs	(Obs_média Obs) ²
11	2	1989	0.0031	0.03	0.0270	0.0007	0.4301	-0.4001	0.1601
4	4	1989	0.0310	0.01	-0.0210	0.0004	0.4301	-0.4201	0.1765
6	4	1989	0.0045	0.01	0.0055	0.0000	0.4301	-0.4201	0.1765
14	4	1989	0.0130	0.08	0.0670	0.0045	0.4301	-0.3501	0.1226
23	4	1989	0.0052	0.01	0.0048	0.0000	0.4301	-0.4201	0.1765
25	4	1989	0.0208	0.01	-0.0108	0.0001	0.4301	-0.4201	0.1765
11	10	1989	0.3040	0.01	-0.2940	0.0864	0.4301	-0.4201	0.1765
3	11	1989	0.0001	0.01	0.0100	0.0001	0.4301	-0.4201	0.1765
13	11	1989	0.0074	0.01	0.0026	0.0000	0.4301	-0.4201	0.1765
18	11	1989	0.2368	0.56	0.3232	0.1045	0.4301	0.1299	0.0169
19	11	1989	0.0198	14.42	14.4002	207.3660	0.4301	13.9899	195.7169
2	2	1990	0.0002	0.27	0.2698	0.0728	0.4301	-0.1601	0.0256
3	2	1990	0.0756	0.19	0.1144	0.0131	0.4301	-0.2401	0.0577
19	2	1990	0.0324	0.03	-0.0024	0.0000	0.4301	-0.4001	0.1601
20	2	1990	0.0103	0.02	0.0097	0.0001	0.4301	-0.4101	0.1682
18	4	1990	0.0108	0.01	-0.0007	0.0000	0.4301	-0.4201	0.1765
21	4	1990	0.0096	0.01	0.0004	0.0000	0.4301	-0.4201	0.1765
30	10	1990	9.2682	0	-9.2682	85.8995	0.4301	-0.4301	0.1850
10	11	1990	0.0277	0	-0.0277	0.0008	0.4301	-0.4301	0.1850
12	11	1990	0.0409	0	-0.0409	0.0017	0.4301	-0.4301	0.1850

Fonte: Os valores observados de escoamento (m³/s) na Estação Hidrométrica de Entradas foram retirados do SNIRH, 2009.

Quadro IV.9 - Escoamento observado na Estação Hidrométrica de Entradas e estimado pelo WEPP, por evento diário para um "cell size" de 60.

Dia	Mês	Ano	Estimado (m ³ /s)	Observado (m ³ /s)	Obs-Est	(Obs-Est) ²	Obs Média	Obs_média Obs	(Obs_média Obs) ²
3	1	1977	2.2956	1.17	-1.1256	1.2669	0.4296	0.7404	0.5482
9	1	1977	1.9247	0.16	-1.7647	3.1143	0.4296	-0.2696	0.0727
14	4	1977	0.0001	0.01	0.0099	0.0001	0.4296	-0.4196	0.1760
4	5	1977	0.0857	0	-0.0857	0.0073	0.4296	-0.4296	0.1845
11	10	1977	0.0006	0	-0.0006	0.0000	0.4296	-0.4296	0.1845
19	10	1977	0.0005	0	-0.0005	0.0000	0.4296	-0.4296	0.1845
15	12	1977	0.0006	0.34	0.3394	0.1152	0.4296	-0.0896	0.0080
20	12	1977	0.0471	1.11	1.0629	1.1298	0.4296	0.6804	0.4630
22	12	1977	1.7715	1.18	-0.5915	0.3498	0.4296	0.7504	0.5631
23	12	1977	1.0881	0.84	-0.2481	0.0615	0.4296	0.4104	0.1684
1	1	1978	0.0090	0.22	0.2110	0.0445	0.4296	-0.2096	0.0439
4	1	1978	0.0173	0.81	0.7927	0.6283	0.4296	0.3804	0.1447
5	4	1978	0.0000	0.01	0.0100	0.0001	0.4296	-0.4196	0.1760
9	9	1978	0.5569	0	-0.5569	0.3101	0.4296	-0.4296	0.1845
3	10	1978	0.5087	0	-0.5087	0.2588	0.4296	-0.4296	0.1845
5	10	1978	0.0005	0	-0.0005	0.0000	0.4296	-0.4296	0.1845
21	10	1978	4.8549	0	-4.8549	23.5699	0.4296	-0.4296	0.1845
22	11	1978	0.0108	0.01	-0.0008	0.0000	0.4296	-0.4196	0.1760
24	11	1978	0.1013	0.01	-0.0913	0.0083	0.4296	-0.4196	0.1760
25	11	1978	0.0584	0.01	-0.0484	0.0023	0.4296	-0.4196	0.1760
26	11	1978	1.6904	0.01	-1.6804	2.8238	0.4296	-0.4196	0.1760
27	11	1978	0.0021	0.01	0.0079	0.0001	0.4296	-0.4196	0.1760
29	11	1978	0.7270	0.02	-0.7070	0.4999	0.4296	-0.4096	0.1678

Dia	Mês	Ano	Estimado (m ³ /s)	Observado (m ³ /s)	Obs-Est	(Obs-Est) ²	Obs Média	Obs_média Obs	(Obs_média Obs) ²
10	12	1978	0.0015	0.16	0.1585	0.0251	0.4296	-0.2696	0.0727
17	12	1978	0.0150	2.62	2.6050	6.7859	0.4296	2.1904	4.7979
14	2	1979	0.0005	29	28.9995	840.9727	0.4296	28.5704	816.2689
26	4	1979	0.0010	0.01	0.0090	0.0001	0.4296	-0.4196	0.1760
31	12	1979	0.0000	0.01	0.0100	0.0001	0.4296	-0.4196	0.1760
21	1	1980	0.0008	0.02	0.0192	0.0004	0.4296	-0.4096	0.1678
26	1	1980	0.0011	0.01	0.0089	0.0001	0.4296	-0.4196	0.1760
14	2	1980	0.0150	0.01	-0.0050	0.0000	0.4296	-0.4196	0.1760
15	2	1980	0.0223	0.01	-0.0123	0.0002	0.4296	-0.4196	0.1760
20	2	1980	0.0049	0.07	0.0651	0.0042	0.4296	-0.3596	0.1293
21	2	1980	0.7298	0.04	-0.6898	0.4758	0.4296	-0.3896	0.1518
21	4	1980	0.1252	0.03	-0.0952	0.0091	0.4296	-0.3996	0.1597
25	4	1980	0.0086	0.01	0.0014	0.0000	0.4296	-0.4196	0.1760
23	9	1980	2.5556	0	-2.5556	6.5313	0.4296	-0.4296	0.1845
18	10	1980	24.7184	0	-24.7184	610.9978	0.4296	-0.4296	0.1845
18	4	1981	0.0009	0	-0.0009	0.0000	0.4296	-0.4296	0.1845
23	4	1981	6.9510	0	-6.9510	48.3157	0.4296	-0.4296	0.1845
24	4	1981	0.8208	0	-0.8208	0.6737	0.4296	-0.4296	0.1845
27	4	1981	0.0214	0	-0.0214	0.0005	0.4296	-0.4296	0.1845
11	5	1981	2.6294	0	-2.6294	6.9138	0.4296	-0.4296	0.1845
4	11	1981	1.6412	0	-1.6412	2.6936	0.4296	-0.4296	0.1845
5	11	1981	0.0001	0	-0.0001	0.0000	0.4296	-0.4296	0.1845
7	11	1981	0.0002	0	-0.0002	0.0000	0.4296	-0.4296	0.1845
8	11	1981	10.2488	0	-10.2488	105.0387	0.4296	-0.4296	0.1845
6	12	1981	0.0003	0.01	0.0097	0.0001	0.4296	-0.4196	0.1760
26	1	1982	0.0005	0.11	0.1095	0.0120	0.4296	-0.3196	0.1021

Dia	Mês	Ano	Estimado (m ³ /s)	Observado (m ³ /s)	Obs-Est	(Obs-Est) ²	Obs Média	Obs_média Obs	(Obs_média Obs) ²
24	2	1982	0.0325	0.08	0.0475	0.0023	0.4296	-0.3496	0.1222
5	3	1982	0.0181	0.02	0.0019	0.0000	0.4296	-0.4096	0.1678
29	3	1982	0.0017	0.01	0.0083	0.0001	0.4296	-0.4196	0.1760
27	4	1982	0.0062	0.01	0.0038	0.0000	0.4296	-0.4196	0.1760
28	4	1982	0.0212	0.01	-0.0112	0.0001	0.4296	-0.4196	0.1760
13	5	1982	0.1062	0	-0.1062	0.0113	0.4296	-0.4296	0.1845
4	9	1982	0.0009	0	-0.0009	0.0000	0.4296	-0.4296	0.1845
3	10	1982	0.0381	0	-0.0381	0.0015	0.4296	-0.4296	0.1845
5	11	1982	0.0006	0	-0.0006	0.0000	0.4296	-0.4296	0.1845
20	12	1982	0.0027	0	-0.0027	0.0000	0.4296	-0.4296	0.1845
5	1	1983	0.0466	0	-0.0466	0.0022	0.4296	-0.4296	0.1845
21	2	1983	0.0092	0	-0.0092	0.0001	0.4296	-0.4296	0.1845
1	3	1983	0.0018	0	-0.0018	0.0000	0.4296	-0.4296	0.1845
24	10	1983	17.8072	0	-17.8072	317.0967	0.4296	-0.4296	0.1845
26	10	1983	3.1000	0	-3.1000	9.6099	0.4296	-0.4296	0.1845
4	12	1983	0.0304	0.04	0.0096	0.0001	0.4296	-0.3896	0.1518
9	12	1983	0.0016	0.03	0.0285	0.0008	0.4296	-0.3996	0.1597
13	12	1983	0.9837	0.03	-0.9537	0.9096	0.4296	-0.3996	0.1597
4	1	1984	0.0017	0.06	0.0583	0.0034	0.4296	-0.3696	0.1366
27	4	1984	1.9248	0.03	-1.8948	3.5901	0.4296	-0.3996	0.1597
28	4	1984	0.0001	0.04	0.0399	0.0016	0.4296	-0.3896	0.1518
1	5	1984	12.2961	0.01	-12.2861	150.9483	0.4296	-0.4196	0.1760
11	8	1984	0.0026	0	-0.0026	0.0000	0.4296	-0.4296	0.1845
16	10	1984	2.8496	0	-2.8496	8.1204	0.4296	-0.4296	0.1845
18	10	1984	1.0580	0	-1.0580	1.1194	0.4296	-0.4296	0.1845
22	10	1984	0.0087	0	-0.0087	0.0001	0.4296	-0.4296	0.1845

Dia	Mês	Ano	Estimado (m ³ /s)	Observado (m ³ /s)	Obs-Est	(Obs-Est) ²	Obs Média	Obs_média Obs	(Obs_média Obs) ²
28	10	1984	0.7553	0	-0.7553	0.5704	0.4296	-0.4296	0.1845
21	11	1984	0.0065	0	-0.0065	0.0000	0.4296	-0.4296	0.1845
11	1	1985	0.0001	0.04	0.0399	0.0016	0.4296	-0.3896	0.1518
7	2	1985	0.0313	1.01	0.9787	0.9579	0.4296	0.5804	0.3369
7	4	1985	0.0005	0.01	0.0095	0.0001	0.4296	-0.4196	0.1760
6	9	1985	0.0002	0	-0.0002	0.0000	0.4296	-0.4296	0.1845
11	10	1985	0.0140	0	-0.0140	0.0002	0.4296	-0.4296	0.1845
13	10	1985	0.0038	0	-0.0038	0.0000	0.4296	-0.4296	0.1845
16	2	1986	0.0009	0.94	0.9391	0.8819	0.4296	0.5104	0.2605
28	2	1986	0.0000	0.12	0.1200	0.0144	0.4296	-0.3096	0.0958
13	3	1986	0.0006	0.09	0.0894	0.0080	0.4296	-0.3396	0.1153
6	4	1986	0.0002	0.94	0.9398	0.8832	0.4296	0.5104	0.2605
5	11	1986	0.0242	0	-0.0242	0.0006	0.4296	-0.4296	0.1845
10	11	1986	1.5507	0	-1.5507	2.4045	0.4296	-0.4296	0.1845
17	11	1986	0.0006	0.01	0.0094	0.0001	0.4296	-0.4196	0.1760
10	12	1986	0.0008	0.01	0.0092	0.0001	0.4296	-0.4196	0.1760
10	2	1987	0.0006	0.18	0.1794	0.0322	0.4296	-0.2496	0.0623
7	4	1987	0.0267	0.02	-0.0067	0.0000	0.4296	-0.4096	0.1678
15	5	1987	0.0128	0	-0.0128	0.0002	0.4296	-0.4296	0.1845
22	9	1987	0.3220	0	-0.3220	0.1037	0.4296	-0.4296	0.1845
24	10	1987	0.0332	0	-0.0332	0.0011	0.4296	-0.4296	0.1845
2	1	1988	0.0225	0.08	0.0575	0.0033	0.4296	-0.3496	0.1222
7	1	1988	0.0088	0.18	0.1712	0.0293	0.4296	-0.2496	0.0623
13	1	1988	0.8332	1.05	0.2168	0.0470	0.4296	0.6204	0.3849
14	3	1988	0.0003	0.01	0.0097	0.0001	0.4296	-0.4196	0.1760
27	3	1988	0.0241	0.01	-0.0141	0.0002	0.4296	-0.4196	0.1760

Dia	Mês	Ano	Estimado (m ³ /s)	Observado (m ³ /s)	Obs-Est	(Obs-Est) ²	Obs Média	Obs_média Obs	(Obs_média Obs) ²
5	4	1988	0.2620	0	-0.2620	0.0687	0.4296	-0.4296	0.1845
26	5	1988	0.0000	0	0.0000	0.0000	0.4296	-0.4296	0.1845
23	9	1988	0.0003	0	-0.0003	0.0000	0.4296	-0.4296	0.1845
11	10	1988	1.4972	0	-1.4972	2.2417	0.4296	-0.4296	0.1845
8	11	1988	0.0114	6.42	6.4086	41.0696	0.4296	5.9904	35.8851
10	11	1988	0.0244	0.49	0.4657	0.2168	0.4296	0.0604	0.0037
11	12	1988	0.0008	0.05	0.0492	0.0024	0.4296	-0.3796	0.1441
6	2	1989	0.0006	0.02	0.0194	0.0004	0.4296	-0.4096	0.1678
4	4	1989	0.0012	0.01	0.0088	0.0001	0.4296	-0.4196	0.1760
14	4	1989	0.0006	0.08	0.0794	0.0063	0.4296	-0.3496	0.1222
11	10	1989	0.2966	0.01	-0.2866	0.0822	0.4296	-0.4196	0.1760
18	11	1989	0.0017	0.56	0.5583	0.3117	0.4296	0.1304	0.0170
2	2	1990	0.0002	0.27	0.2698	0.0728	0.4296	-0.1596	0.0255
3	2	1990	0.0438	0.19	0.1462	0.0214	0.4296	-0.2396	0.0574
19	2	1990	0.0183	0.03	0.0117	0.0001	0.4296	-0.3996	0.1597
21	4	1990	0.0003	0.01	0.0097	0.0001	0.4296	-0.4196	0.1760
30	10	1990	9.8804	0	-9.8804	97.6219	0.4296	-0.4296	0.1845
10	11	1990	0.0011	0	-0.0011	0.0000	0.4296	-0.4296	0.1845
12	11	1990	0.0116	0	-0.0116	0.0001	0.4296	-0.4296	0.1845

Fonte: Os valores observados de escoamento (m³/s) na Estação Hidrométrica de Entradas foram retirados do SNIRH, 2009.