

ANEXO

Caudales medios mensuales río Guavio 1963-2022 [m³/s]

AÑO	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic
1963	10.52	15.55	12.22	50.57	95.85	91.05	89.14	87.97	68.09	30.40	38.11	23.54
1964	8.16	8.35	18.46	50.46	90.66	115.29	89.42	90.36	84.48	54.65	46.06	37.86
1965	33.95	10.90	12.07	60.67	111.11	98.73	123.83	98.19	53.18	62.05	61.47	36.19
1966	18.00	10.11	32.28	32.37	34.11	41.28	77.27	91.37	60.27	36.98	53.53	45.36
1967	30.35	21.63	18.60	56.12	80.59	125.98	114.75	121.82	73.11	38.48	35.03	29.25
1968	10.33	10.92	19.60	89.71	64.51	126.32	176.83	89.48	63.94	62.15	48.36	16.74
1969	12.35	15.05	15.53	54.06	73.34	73.93	98.61	86.33	52.60	82.47	46.71	30.75
1970	28.30	17.71	39.93	88.44	91.39	142.92	115.32	113.94	87.22	76.27	54.31	30.15
1971	20.22	25.97	50.60	77.38	105.30	133.83	149.71	117.35	86.34	62.03	43.22	23.65
1972	47.79	22.37	31.72	76.18	138.78	139.74	150.73	109.28	78.38	38.46	39.87	18.26
1973	11.80	9.28	9.96	23.84	82.93	117.57	111.31	93.89	108.90	66.44	59.65	31.11
1974	15.52	18.56	25.43	71.96	102.85	98.21	128.94	112.07	57.45	47.40	39.85	15.76
1975	10.49	8.86	38.51	42.61	79.99	154.63	86.84	101.26	64.14	62.08	50.02	50.09
1976	22.17	15.83	48.87	68.78	140.14	176.01	141.37	105.73	80.76	59.62	54.37	30.65
1977	10.11	14.95	18.68	36.40	58.33	113.12	132.68	72.36	74.80	55.71	50.63	16.05
1978	8.80	13.86	13.53	58.64	76.94	135.87	99.23	83.22	61.60	68.79	25.12	20.75
1979	9.73	6.49	19.34	45.60	50.62	83.70	70.67	63.24	46.69	67.69	60.42	42.11
1980	18.20	14.51	17.55	57.97	49.23	90.04	55.64	78.12	69.33	44.90	24.97	14.94
1981	6.07	9.23	16.23	56.85	98.12	98.39	87.72	63.91	78.71	66.12	48.99	22.08
1982	9.34	14.56	25.30	99.20	78.31	63.87	147.10	110.35	72.38	75.33	40.76	18.98
1983	21.26	30.01	58.54	63.05	87.91	112.20	130.53	100.07	88.52	60.97	37.10	40.19
1984	14.56	39.56	21.98	26.89	76.77	166.94	124.17	119.99	85.07	41.14	49.42	21.90
1985	15.34	10.51	16.71	46.65	93.84	129.96	92.64	94.33	84.28	67.17	48.53	30.79
1986	13.92	17.78	41.06	63.17	70.75	153.62	165.09	115.29	61.94	86.60	47.15	30.84
1987	18.85	38.78	26.14	76.64	101.22	101.62	114.39	144.48	73.89	86.91	49.78	43.97
1988	11.33	9.79	11.59	31.74	65.98	90.51	126.47	73.37	72.49	57.69	71.61	34.99
1989	19.59	24.22	47.20	45.17	94.82	121.62	119.64	50.07	37.95	36.37	31.22	17.26

AÑO	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic
1990	12.96	18.00	54.37	71.87	112.03	122.40	73.50	76.03	45.41	34.81	36.54	32.68
1991	14.52	12.49	32.92	40.85	57.82	86.44	121.00	123.34	58.61	41.31	48.24	13.98
1992	5.58	8.84	8.53	33.15	41.93	70.33	156.50	104.81	56.29	39.68	40.65	28.89
1993	10.26	13.60	30.50	75.33	89.78	122.66	158.41	92.66	66.05	50.00	49.17	26.60
1994	12.80	11.02	19.59	59.16	127.65	162.51	177.46	113.86	80.02	68.97	49.68	26.43
1995	15.98	6.64	25.78	32.24	70.02	86.02	79.28	50.62	37.70	39.69	34.38	15.30
1996	9.02	32.42	16.94	50.02	109.87	88.20	148.82	78.09	37.95	58.36	27.35	32.57
1997	14.42	27.67	12.47	43.53	108.14	78.49	184.57	81.06	34.71	24.55	20.02	12.46
1998	5.59	7.70	5.44	38.84	106.98	173.94	182.96	94.16	41.10	37.52	40.19	32.42
1999	21.77	26.21	27.64	107.39	89.92	140.78	75.30	77.95	63.46	98.59	42.29	25.72
2000	21.31	19.99	22.88	33.69	114.94	129.03	101.80	109.46	77.67	53.71	64.42	35.35
2001	18.34	7.51	13.59	35.75	88.02	123.04	103.97	116.82	77.43	33.29	50.57	40.45
2002	11.30	9.62	29.22	70.10	112.34	139.64	127.04	125.20	52.01	28.76	43.37	11.19
2003	2.67	0.45	15.83	55.26	109.76	67.73	92.94	96.35	66.33	61.96	38.04	26.53
2004	11.49	10.59	43.25	64.22	130.85	201.30	103.89	105.93	58.22	51.86	38.88	17.60
2005	8.92	15.89	9.63	70.12	96.37	79.88	57.98	72.37	71.59	48.04	60.18	8.66
2006	7.69	6.84	43.00	93.23	99.51	106.08	85.17	56.75	38.18	57.44	45.06	17.33
2007	7.39	4.86	16.38	51.94	65.63	125.53	67.46	63.91	50.51	49.62	50.11	26.29
2008	16.24	12.16	10.93	14.44	61.14	121.75	129.54	67.96	56.44	39.50	71.25	25.34
2009	15.75	16.17	23.31	57.53	44.77	83.97	120.58	76.59	45.82	37.41	24.64	10.03
2010	6.18	9.07	17.82	53.43	73.64	85.70	88.94	49.19	31.19	29.63	50.06	25.47
2011	13.79	12.66	49.81	95.34	109.37	101.23	69.39	47.52	49.03	57.37	57.09	36.46
2012	8.13	17.70	47.97	86.46	103.54	89.13	126.82	92.47	55.47	42.88	30.52	21.48
2013	10.60	11.81	35.94	55.66	124.49	76.03	99.97	85.91	50.63	33.85	52.35	29.29
2014	11.20	12.51	24.05	49.73	54.34	171.22	173.88	94.18	78.11	46.09	30.90	22.71
2015	13.57	21.76	13.71	65.45	75.72	192.19	153.04	112.27	56.52	26.52	37.75	26.79
2016	10.86	10.14	12.42	59.30	93.46	99.27	129.40	97.69	92.03	39.64	54.13	28.60
2017	20.53	20.13	54.45	39.86	93.35	93.82	90.48	48.16	43.01	39.98	31.02	15.42
2018	15.00	9.41	24.42	74.93	111.23	178.15	174.12	103.68	48.91	37.47	22.44	10.89
2019	10.91	8.06	22.76	51.49	83.74	162.70	156.40	92.59	52.13	43.04	30.38	18.44
2020	13.87	12.34	18.47	33.45	87.18	111.11	133.81	59.17	49.92	41.65	62.47	19.02

AÑO	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic
2021	19.44	19.67	54.68	85.97	121.74	135.41	137.33	106.06	72.26	59.09	43.02	14.35
2022	8.04	15.70	25.88	51.69								

Caudales medios mensuales río Chivor 1963-2022 [m3/s]

AÑO	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic
1963	0.82	1.99	2.25	8.48	14.89	17.83	13.50	15.44	9.75	3.20	1.30	2.27
1964	0.72	0.48	0.46	2.26	9.86	11.25	5.99	6.66	11.70	4.84	3.86	2.04
1965	1.38	0.65	0.73	3.30	17.11	11.55	17.13	9.17	4.17	4.97	5.19	2.81
1966	1.34	0.67	3.31	2.97	3.16	3.33	10.60	8.18	4.88	2.20	4.23	2.37
1967	1.97	1.01	0.96	5.04	7.41	12.98	7.85	12.68	10.06	2.71	1.88	1.61
1968	1.13	1.07	1.18	6.78	3.62	10.90	13.10	7.86	5.53	5.33	7.04	2.12
1969	1.29	1.37	1.40	2.92	9.32	9.81	11.19	10.23	3.24	3.41	1.59	1.20
1970	2.02	1.20	3.27	7.06	7.37	15.40	14.46	10.48	7.75	5.45	3.13	1.86
1971	1.46	1.19	2.92	6.18	9.44	16.33	19.42	10.52	7.44	3.34	2.43	2.08
1972	3.21	1.78	3.83	7.30	14.07	15.58	18.29	11.84	6.39	3.13	2.23	1.23
1973	0.67	0.62	0.68	1.68	9.30	11.35	12.30	8.04	8.43	4.78	5.46	1.78
1974	0.98	1.94	1.87	6.11	9.16	11.48	14.65	12.97	5.47	3.42	1.98	0.96
1975	0.68	0.60	2.38	2.42	6.07	15.84	9.73	11.30	5.00	6.23	3.11	1.68
1976	1.10	0.85	2.17	5.95	15.13	16.45	17.54	12.42	5.41	3.04	3.54	1.76
1977	1.16	1.29	1.77	4.14	6.79	10.61	16.11	7.36	9.89	5.52	3.70	1.41
1978	0.80	0.91	0.83	4.86	7.99	10.61	8.67	8.25	6.07	6.71	2.08	1.79
1979	0.60	0.35	0.80	3.62	6.16	10.23	10.60	10.25	4.96	6.19	5.30	4.56
1980	3.82	1.80	1.79	5.48	5.59	15.56	10.82	9.57	9.59	7.41	2.80	1.58
1981	1.14	1.51	2.86	5.27	8.85	12.00	9.66	9.31	8.48	7.50	5.04	2.99
1982	1.82	1.74	2.94	11.63	6.64	6.57	14.06	9.11	9.82	2.30	1.87	2.28
1983	1.13	2.67	4.20	9.89	7.18	13.67	21.01	20.15	10.88	7.75	4.09	5.82
1984	2.67	4.41	5.72	7.27	13.30	16.59	19.79	16.22	11.07	6.22	8.48	6.64
1985	5.12	2.74	2.60	5.83	16.48	14.66	23.85	18.18	14.86	11.51	7.68	7.18
1986	1.09	1.53	1.71	3.45	7.36	15.09	13.62	8.06	3.51	3.91	1.97	1.67
1987	1.05	2.57	2.72	3.65	5.05	7.46	12.47	7.38	3.76	2.98	3.16	1.64

AÑO	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic
1988	0.93	0.79	0.52	2.13	4.75	6.44	9.68	4.19	4.94	3.27	5.12	1.54
1989	1.66	1.75	3.27	4.97	9.14	12.05	10.21	6.72	3.83	5.03	3.00	1.89
1990	2.13	3.73	4.21	4.18	11.38	12.41	10.32	7.08	3.04	1.32	1.84	2.03
1991	0.65	0.77	1.21	3.06	5.91	7.75	15.41	12.11	7.45	4.83	3.82	2.33
1992	1.78	1.10	1.75	3.94	4.62	9.95	15.51	11.79	5.33	2.91	3.04	2.29
1993	2.62	2.31	4.13	6.60	6.86	13.89	14.62	9.07	7.41	4.67	4.37	3.69
1994	2.12	1.85	2.50	5.98	11.48	11.67	15.76	15.39	9.09	3.89	3.61	2.15
1995	1.58	1.06	1.34	3.12	7.63	8.82	6.41	4.60	4.48	4.34	2.11	1.53
1996	1.03	2.71	1.46	4.34	9.76	10.25	12.82	7.16	3.80	4.12	3.06	3.03
1997	1.45	2.15	1.77	3.25	11.37	9.15	14.70	10.86	5.43	3.47	3.37	2.83
1998	2.47	3.01	2.94	6.79	11.96	14.60	15.73	7.05	2.79	5.43	2.95	3.26
1999	1.33	2.28	2.80	10.94	8.75	11.86	6.61	5.99	5.83	7.74	2.64	1.54
2000	1.55	1.93	2.43	2.85	11.49	12.51	9.89	9.92	6.93	5.36	5.99	2.97
2001	2.86	3.50	3.58	4.17	9.33	12.11	8.81	10.48	7.94	3.44	4.41	5.09
2002	4.14	4.26	5.35	8.27	14.46	13.69	14.62	12.74	9.65	9.37	7.63	6.06
2003	6.16	5.83	5.29	6.02	11.21	6.75	10.65	11.52	8.02	6.42	4.18	3.75
2004	3.46	3.66	4.33	6.33	19.65	17.87	19.77	18.57	5.99	5.54	4.96	3.58
2005	4.50	5.95	5.12	7.86	11.18	9.34	8.79	10.38	11.92	11.15	10.69	8.16
2006	6.21	3.34	9.07	12.62	9.71	12.55	13.48	12.13	5.54	6.79	4.00	2.90
2007	2.38	2.37	3.49	6.80	11.46	18.42	8.60	8.62	10.51	4.73	3.67	1.87
2008	2.06	1.90	2.89	4.81	8.01	18.33	15.41	7.73	7.35	4.66	8.20	3.73
2009	2.24	2.20	2.65	6.61	7.11	11.22	11.83	9.05	4.88	3.77	2.40	1.18
2010	0.75	0.99	1.77	2.68	4.38	5.61	8.87	7.27	6.81	6.16	7.24	7.19
2011	1.83	1.57	5.76	9.33	12.52	10.17	7.31	6.37	8.61	6.62	6.27	3.46
2012	5.37	1.61	3.53	12.46	9.97	8.95	16.44	7.44	3.85	2.20	1.10	1.88
2013	0.30	0.16	7.05	2.01	4.95	6.33	5.10	3.72	3.39	2.39	3.88	0.27
2014	0.17	0.18	0.32	9.04	7.10	15.83	13.50	12.74	7.90	3.60	2.53	4.59
2015	1.74	2.97	2.78	10.36	11.16	11.85	16.83	13.83	11.94	3.34	5.44	5.36
2016	3.58	3.40	4.35	14.57	14.39	14.83	17.39	21.23	7.41	3.40	4.10	2.20
2017	3.63	4.07	3.91	5.97	19.40	15.46	14.44	14.29	7.20	3.67	2.64	1.40
2018	2.91	0.49	1.46	13.41	15.68	18.69	19.90	14.15	7.45	7.28	3.31	1.51

AÑO	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic
2019	0.44	0.44	1.22	2.49	15.55	20.28	18.58	13.54	6.31	4.90	3.17	2.03
2020	1.94	1.60	2.03	3.35	9.59	12.22	14.76	6.51	5.48	3.75	5.62	2.09
2021	2.72	2.56	6.01	8.56	13.39	14.90	15.11	11.67	7.95	5.32	3.87	1.58
2022	1.13	2.04	2.85	5.17								

Caudales medios mensuales río Batatas 1963-2022 [m3/s]

AÑO	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic
1963	2.37	3.51	3.37	7.82	10.83	11.26	9.89	11.02	6.91	3.37	4.14	2.64
1964	2.11	2.24	2.25	4.44	9.61	10.08	10.19	8.04	12.13	4.88	4.43	3.17
1965	3.96	3.55	2.23	3.86	11.17	13.91	14.62	16.14	5.89	4.26	4.07	3.05
1966	2.54	2.34	2.44	3.96	3.55	3.55	6.09	6.50	6.09	4.47	3.86	3.96
1967	2.74	3.05	5.94	7.21	12.38	11.35	13.09	4.47	3.96	3.86	3.35	2.23
1968	3.35	2.23	2.64	9.54	7.82	11.88	18.78	10.35	7.21	6.40	4.97	2.64
1969	2.06	2.54	2.44	4.97	8.73	9.24	16.65	13.40	6.40	5.99	5.38	4.16
1970	3.96	3.05	4.26	6.60	6.29	11.98	10.76	8.22	6.09	5.48	3.96	3.35
1971	2.74	2.84	3.76	5.28	7.41	10.56	12.59	9.14	7.21	4.77	4.67	2.94
1972	1.58	1.47	4.11	3.82	10.95	9.92	11.77	9.34	6.38	5.59	2.18	1.31
1973	0.89	0.65	1.55	4.02	7.86	10.18	8.59	8.84	7.89	5.28	4.86	1.66
1974	1.05	1.85	3.34	5.65	7.88	7.30	9.18	8.80	4.98	4.05	2.22	1.00
1975	0.89	0.64	3.94	3.62	7.27	7.81	5.06	6.73	4.70	4.58	2.73	1.80
1976	1.16	1.64	3.40	4.12	9.64	13.67	13.95	7.70	5.76	2.17	2.26	1.57
1977	0.66	1.19	1.54	2.76	4.07	8.33	11.39	6.45	5.28	4.30	1.58	0.82
1978	0.65	1.18	0.86	5.12	7.86	11.08	8.18	7.45	4.23	5.93	2.11	2.59
1979	0.90	0.73	1.98	7.70	6.73	8.79	7.45	7.59	4.12	5.60	3.09	3.04
1980	1.61	1.26	2.09	5.77	6.03	12.90	6.48	5.05	5.61	6.24	2.63	1.92
1981	1.25	2.01	3.24	3.40	6.23	8.38	7.57	6.16	8.75	7.17	7.02	3.16
1982	1.57	2.48	3.36	7.42	10.59	6.09	12.38	10.43	9.46	5.97	2.98	1.77
1983	1.94	6.73	4.11	12.09	6.87	8.49	15.72	8.74	8.46	6.70	6.42	7.21
1984	2.14	4.32	2.39	3.04	8.08	12.07	9.68	8.62	6.81	4.11	3.00	2.49
1985	1.21	1.23	1.39	2.87	9.63	13.99	10.75	11.64	7.43	5.53	3.15	2.21

AÑO	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic
1986	0.51	2.29	3.63	5.94	6.31	8.49	11.58	8.99	6.31	6.27	5.82	3.46
1987	2.53	7.44	5.02	6.63	6.38	9.57	10.12	7.91	4.87	3.77	3.57	2.05
1988	1.17	0.97	0.87	4.63	5.92	7.49	9.49	5.69	5.23	5.53	4.21	2.23
1989	1.89	2.36	3.06	3.95	7.79	8.38	10.04	5.17	6.76	5.71	3.91	1.63
1990	1.62	2.11	5.92	5.72	9.96	9.27	6.67	6.89	3.89	2.63	2.66	1.47
1991	0.42	0.80	0.68	2.93	5.17	10.17	11.89	9.18	4.82	6.60	2.45	1.23
1992	0.72	0.32	1.11	5.05	4.62	6.21	11.60	9.18	6.82	5.16	2.96	1.16
1993	1.28	1.44	4.46	8.03	5.73	12.21	13.85	6.67	5.44	4.04	2.76	1.75
1994	0.63	0.81	6.27	3.72	12.64	7.91	13.67	8.66	6.48	4.62	2.68	2.09
1995	1.24	0.84	2.09	3.48	7.41	10.33	4.57	5.06	4.87	3.30	3.74	3.63
1996	2.44	4.87	8.83	8.12	8.73	9.34	8.73	7.21	6.50	4.97	5.89	4.97
1997	2.03	3.15	3.35	5.79	9.83	8.43	13.60	6.90	7.51	6.09	4.57	1.02
1998	0.91	3.96	4.67	5.68	7.21	9.85	10.76	6.70	4.47	9.95	2.64	2.03
1999	1.30	3.28	3.67	6.84	7.71	7.56	5.61	4.26	2.76	6.18	3.03	2.66
2000	0.81	1.28	1.41	3.18	2.21	7.77	6.55	7.91	3.74	3.62	4.21	2.41
2001	1.47	1.05	1.34	2.53	4.61	6.96	3.80	4.26	5.16	3.40	4.74	3.84
2002	2.00	2.25	4.22	7.17	9.87	16.48	11.11	10.06	7.28	9.39	7.49	1.91
2003	0.92	0.90	2.37	5.01	10.11	9.28	7.60	8.00	6.45	4.40	3.40	2.37
2004	1.15	1.85	4.32	6.08	14.17	15.02	12.07	7.76	6.14	5.92	2.60	3.08
2005	1.40	4.26	3.77	6.46	11.16	11.49	13.61	7.93	10.66	6.61	9.22	5.07
2006	5.12	3.55	6.86	10.11	11.45	16.07	15.86	11.88	6.29	5.60	7.10	4.12
2007	2.53	2.10	4.08	8.51	9.37	12.13	7.22	8.93	7.88	4.43	4.96	2.01
2008	1.27	0.92	1.17	3.47	7.56	14.65	14.34	9.43	9.33	7.13	4.72	4.51
2009	2.00	1.56	2.86	7.32	5.87	10.28	15.81	8.49	8.28	5.29	3.23	2.51
2010	1.49	2.19	5.39	4.22	9.99	11.41	10.16	7.37	5.75	3.39	3.85	3.67
2011	2.87	1.79	3.86	8.28	11.46	8.52	7.39	5.79	8.78	6.35	5.46	5.59
2012	2.87	4.19	10.43	7.93	11.64	17.84	13.60	11.38	5.66	3.99	7.96	4.27
2013	1.31	3.16	4.41	4.10	7.42	8.27	9.83	7.10	5.98	6.83	5.28	3.25
2014	1.95	1.93	3.92	8.65	6.76	13.05	12.15	8.99	6.96	3.27	2.12	2.43
2015	1.74	1.42	1.69	6.57	5.40	12.69	11.33	12.12	10.44	4.70	4.64	3.62
2016	1.27	1.15	3.88	13.01	15.89	9.69	13.38	12.58	11.28	7.14	4.83	3.70

AÑO	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic
2017	1.96	1.29	2.50	3.03	4.49	8.14	8.93	2.61	3.19	4.29	4.13	2.41
2018	2.29	1.14	2.10	3.91	6.77	11.56	8.50	5.37	5.07	6.74	4.19	0.78
2019	0.69	0.54	2.07	3.81	6.29	14.96	9.87	7.49	4.15	3.42	1.73	1.28
2020	1.09	0.87	1.10	2.73	6.06	6.52	6.80	3.50	3.67	3.02	1.48	1.14
2021	1.26	0.84	2.33	6.27	6.99	6.24	6.12	6.40	5.39	6.12	3.41	1.30
2022	0.79	0.88	1.33	3.85								