

Water-Data Report 2007

02301500 ALAFIA RIVER AT LITHIA, FL.

Tampa Bay Basin
Alafia Subbasin

LOCATION.--Lat 27°52'19", long 82°12'41" referenced to North American Datum of 1927, in NE ¼ sec.16, T.30 S., R.21 E., Hillsborough County, FL, Hydrologic Unit 03100204, near center of span on upstream side of bridge on State Highway 640, 2.0 mi upstream from Little Fishhawk Creek, 4.3 mi west of Lithia, and 16 mi upstream from mouth.

DRAINAGE AREA.--335 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1932 to current year. Monthly discharge only prior to February 1933, published in WSP 1304.

REVISED RECORDS.--WSP 782: 1933(M). WSP 1234: Drainage area. WSP 1274: 1933-35, 1939, 1945, 1947-50.

GAGE.--Water-stage recorder. Datum of gage is 7.00 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 8, 1939, nonrecording gage at site 200 ft upstream; Aug. 8, 1939, to Sept. 5, 1963, water-stage recorder at site 60 ft downstream; Sept. 6, 1963, to Oct. 14, 1965, water-stage recorder at site 50 ft downstream. Prior to Oct. 14, 1965, at datum 2.86 ft higher.

REMARKS.--Records good except estimated daily discharges, which are poor. Maximum discharge from rating curve extended above 21,000 ft³/s. Maximum gage height from floodmarks. Period of record gage height is at present datum.

02301500 ALAFIA RIVER AT LITHIA, FL.—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007
DAILY MEAN VALUES

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	281	116	76	145	146	142	47	33	14	76	139	201
2	256	113	77	148	234	140	46	31	27	110	225	242
3	240	108	78	149	380	132	44	30	46	e125	386	229
4	220	103	80	158	295	135	43	29	45	110	374	240
5	211	99	76	156	265	139	42	27	33	122	277	224
6	193	100	73	147	241	127	42	28	28	124	198	185
7	182	99	71	138	215	117	42	28	26	129	162	164
8	173	115	69	131	196	112	40	27	e30	150	142	148
9	165	121	66	125	179	108	39	25	e34	150	144	128
10	163	110	65	112	168	e106	44	25	e36	137	130	111
11	180	115	65	106	158	104	85	25	e32	122	115	98
12	187	108	63	107	150	106	117	24	33	102	241	113
13	187	99	63	113	167	105	122	23	35	90	168	183
14	180	92	69	109	253	102	91	22	39	79	152	343
15	168	86	91	108	260	101	79	33	41	74	178	247
16	151	116	109	104	246	108	112	29	32	73	219	224
17	128	167	110	98	240	128	99	24	28	73	253	e215
18	129	143	110	92	247	122	83	23	30	66	220	e195
19	143	125	115	89	235	113	73	25	35	66	190	135
20	146	114	111	94	211	106	67	28	34	70	147	127
21	147	102	104	95	197	99	63	24	36	65	124	156
22	144	94	98	94	189	94	57	22	37	117	107	201
23	139	88	107	95	174	87	52	20	e50	197	96	169
24	125	86	128	94	160	75	48	19	e110	280	114	192
25	111	82	132	145	151	65	45	18	e73	205	411	214
26	108	81	236	214	143	60	43	17	44	175	413	179
27	105	77	224	179	139	58	40	17	38	160	457	146
28	133	75	192	187	140	56	39	17	34	131	427	136
29	159	76	175	220	---	53	36	16	33	120	314	122
30	127	e77	161	180	---	51	35	15	32	124	206	125
31	115	---	150	159	---	49	---	14	---	133	165	---
Total	5,096	3,087	3,344	4,091	5,779	3,100	1,815	738	1,145	3,755	6,894	5,392
Mean	164	103	108	132	206	100	60.5	23.8	38.2	121	222	180
Max	281	167	236	220	380	142	122	33	110	280	457	343
Min	105	75	63	89	139	49	35	14	14	65	96	98
Med	159	101	98	125	197	106	47	24	34	122	190	181
Ac-ft	10,110	6,120	6,630	8,110	11,460	6,150	3,600	1,460	2,270	7,450	13,670	10,700
Cfsm	0.49	0.31	0.32	0.39	0.62	0.30	0.18	0.07	0.11	0.36	0.66	0.54
In.	0.57	0.34	0.37	0.45	0.64	0.34	0.20	0.08	0.13	0.42	0.77	0.60

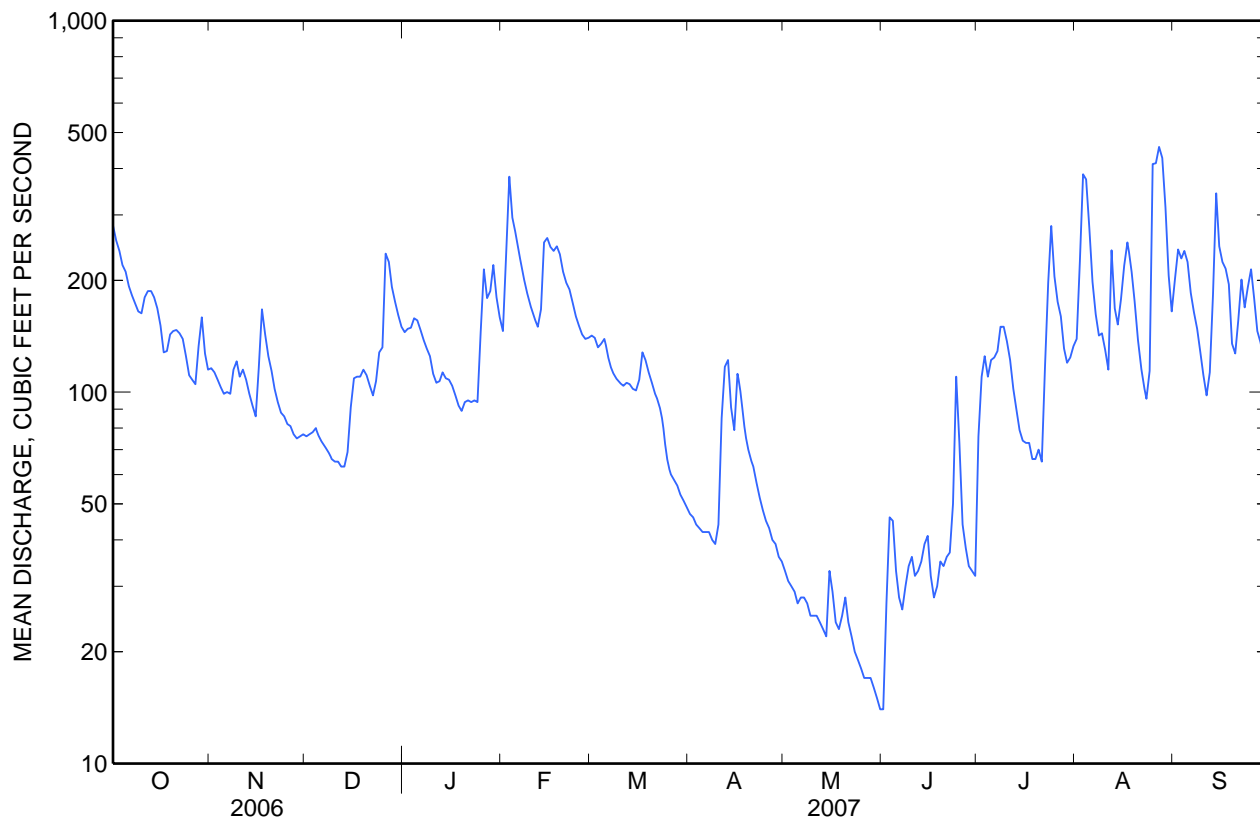
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1933 - 2007, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	349	185	197	243	271	300	189	125	299	512	623	741
Max	1,374	718	1,463	1,023	1,698	1,874	900	748	1,116	2,696	2,319	4,185
(WY)	(1939)	(1954)	(1998)	(2003)	(1998)	(1959)	(1959)	(1957)	(2003)	(1945)	(1949)	(1933)
Min	50.9	28.0	31.8	38.7	33.1	35.4	25.0	9.66	27.0	80.6	138	74.5
(WY)	(1941)	(1941)	(2001)	(2001)	(2001)	(1935)	(1945)	(2001)	(1951)	(1956)	(1989)	(1990)

02301500 ALAFIA RIVER AT LITHIA, FL.—Continued

SUMMARY STATISTICS

	Calendar Year 2006		Water Year 2007		Water Years 1933 - 2007	
Annual total	80,067		44,236			
Annual mean	219		121		337	
Highest annual mean					845	1960
Lowest annual mean					121	2007
Highest daily mean	1,600	Aug 18	457	Aug 27	40,800	Sep 7, 1933
Lowest daily mean	10	Jun 7	14	May 31	4.1	May 30, 2000
Annual seven-day minimum	11	Jun 4	16	May 26	4.2	May 30, 2000
Maximum peak flow			481 Aug 27		45,900	Sep 7, 1933
Maximum peak stage			6.46 Aug 27		28.50	Sep 7, 1933
Annual runoff (ac-ft)	158,800		87,740		243,800	
Annual runoff (cfs)	0.655		0.362		1.00	
Annual runoff (inches)	8.89		4.91		13.65	
10 percent exceeds	574		220		725	
50 percent exceeds	129		111		174	
90 percent exceeds	24		32		54	



02301500 ALAFIA RIVER AT LITHIA, FL.—Continued

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	4.82	3.36	3.02	3.64	3.66	3.57	2.74	2.61	2.42	3.09	3.54	4.13
2	4.62	3.33	3.03	3.68	4.43	3.54	2.72	2.59	2.60	3.37	4.35	4.51
3	4.48	3.29	3.04	3.68	5.66	3.47	2.70	2.57	2.83	---	5.71	4.39
4	4.31	3.24	3.06	3.77	4.97	3.50	2.69	2.56	2.82	3.38	5.61	4.49
5	4.23	3.21	3.03	3.74	4.71	3.54	2.69	2.55	2.69	3.48	4.81	4.35
6	4.07	3.22	3.00	3.66	4.50	3.42	2.69	2.56	2.62	3.50	4.10	3.99
7	3.98	3.21	2.98	3.57	4.26	3.33	2.69	2.56	2.61	3.55	3.76	3.78
8	3.90	3.35	2.97	3.50	4.09	3.28	2.66	2.54	---	3.77	3.57	3.63
9	3.83	3.41	2.95	3.44	3.93	3.24	2.64	2.53	---	3.76	3.60	3.43
10	3.81	3.30	2.94	3.32	3.83	---	2.70	2.53	---	3.63	3.46	3.27
11	3.96	3.35	2.94	3.27	3.73	3.20	3.06	2.53	---	3.48	3.31	3.16
12	4.02	3.29	2.92	3.28	3.65	3.23	3.33	2.52	2.69	3.31	4.49	3.30
13	4.03	3.21	2.92	3.33	3.81	3.22	3.38	2.51	2.71	3.21	3.82	3.96
14	3.96	3.15	2.97	3.30	4.61	3.20	3.10	2.50	2.76	3.12	3.67	5.36
15	3.85	3.11	3.14	3.28	4.67	3.19	3.01	2.63	2.78	3.08	3.92	4.54
16	3.69	3.37	3.29	3.25	4.54	3.25	3.29	2.60	2.68	3.08	4.30	4.34
17	3.47	3.84	3.30	3.20	4.49	3.43	3.17	2.53	2.63	3.07	4.60	---
18	3.48	3.62	3.31	3.15	4.55	3.38	3.04	2.53	2.65	3.01	4.31	---
19	3.62	3.44	3.35	3.13	4.45	3.29	2.96	2.56	2.72	3.02	4.03	3.50
20	3.64	3.34	3.32	3.17	4.23	3.23	2.92	2.58	2.70	3.05	3.62	3.42
21	3.65	3.23	3.25	3.18	4.10	3.17	2.88	2.55	2.72	3.01	3.39	3.71
22	3.62	3.17	3.20	3.17	4.02	3.13	2.83	2.52	2.73	3.44	3.24	4.14
23	3.58	3.12	3.28	3.18	3.88	3.08	2.79	2.49	---	4.14	3.15	3.83
24	3.45	3.11	3.47	3.17	3.74	2.98	2.75	2.47	---	4.84	3.32	4.05
25	3.31	3.07	3.51	3.64	3.66	2.90	2.72	2.46	---	4.16	5.90	4.26
26	3.28	3.07	4.48	4.29	3.59	2.86	2.71	2.45	2.82	3.89	5.93	3.93
27	3.26	3.03	4.38	3.97	3.54	2.84	2.68	2.45	2.75	3.75	6.27	3.61
28	3.52	3.02	4.08	4.04	3.55	2.81	2.66	2.46	2.70	3.46	6.04	3.50
29	3.77	3.02	3.93	4.35	---	2.79	2.64	2.44	2.69	3.36	5.12	3.37
30	3.46	---	3.80	3.98	---	2.77	2.63	2.42	2.69	3.39	4.18	3.41
31	3.35	---	3.69	3.77	---	2.76	---	2.41	---	3.48	3.80	---
Mean	3.81	---	3.31	3.52	4.17	---	2.85	2.52	---	---	4.29	---
Max	4.82	---	4.48	4.35	5.66	---	3.38	2.63	---	---	6.27	---
Min	3.26	---	2.92	3.13	3.54	---	2.63	2.41	---	---	3.15	---

02301500 ALAFIA RIVER AT LITHIA, FL.—Continued**CLIMATOLOGICAL RECORDS**

REVISED RECORDS.--Previously approved total sum rainfall for April 9, 2007 was revised from 0.43 inches to 0.29 inches.

PERIOD OF RECORD.--June 1994 to current year.

INSTRUMENTATION.--A 6-inch diameter, tipping bucket precipitation gage 15-minute interval, mounted on platform over the stream next to the gage structure. It is approximately 4 ft below and 5 ft upstream of the bridge rail.

REMARKS.--Collection, computation and publication of precipitation data do not necessarily conform to standards used by the National Weather Service. Records of precipitation prior to October 1, 2002 not published but are available in the files of the Geological Survey.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007
DAILY SUM VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	0.00	0.00	0.00	0.26	0.02	0.00	0.00	0.00	0.78	0.19	0.18	0.01
2	0.00	0.00	0.00	0.00	1.26	0.00	0.00	0.00	1.13	0.81	2.16	0.00
3	0.00	0.00	0.00	0.16	0.02	0.22	0.01	0.00	0.01	0.01	0.00	0.14
4	0.00	0.00	0.00	0.01	0.00	0.02	0.00	0.00	0.00	0.55	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.41	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.00	0.10	0.00	0.00
7	0.00	0.30	0.00	0.10	0.00	0.00	0.00	0.00	1.02	0.00	0.00	0.10
8	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.64	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.29	0.00	0.01	0.00	0.00	0.02
10	0.00	0.00	0.00	0.00	0.00	0.00	0.89	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.02	0.29	1.67	0.00
12	0.32	0.00	0.00	0.00	0.21	0.00	0.01	0.00	0.00	0.00	0.01	1.60
13	0.00	0.00	0.06	0.00	0.58	0.00	0.00	0.00	0.24	0.00	0.00	0.22
14	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.01	0.00	0.00	2.33	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00
16	0.00	1.29	0.00	0.00	0.04	0.48	0.00	0.01	0.00	0.00	0.01	0.62
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.21
18	0.00	0.00	0.00	0.00	0.18	0.00	0.01	0.07	0.88	0.13	0.02	0.02
19	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.05	0.00	0.28
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.06	0.00	0.19
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.25	0.00	0.00
22	0.00	0.00	0.05	0.11	0.00	0.00	0.00	0.00	0.04	0.17	0.00	0.03
23	0.00	0.00	0.37	0.01	0.00	0.00	0.00	0.00	0.01	0.32	0.00	1.00
24	0.00	0.00	0.00	0.55	0.00	0.00	0.00	0.00	0.00	0.01	2.78	0.00
25	0.00	0.00	1.21	0.53	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.00
26	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
27	0.00	0.04	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.94	0.03	0.00	0.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.04	0.00	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.05
30	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	0.16	0.02	0.00	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.00	---	0.18	0.06	---
Total	1.26	1.70	1.77	2.35	2.31	0.72	1.99	0.53	5.07	3.16	9.25	4.49

Water Year 2007	
Total	34.60