06923950 NIANGUA RIVER AT TUNNEL DAM NEAR MACKS CREEK, MO

Osage Basin
Niangua Subbasin

LOCATION.--Lat 37°56'13.0", long 92°51'04.9" referenced to North American Datum of 1983, in SE ¼ SW ¼ SW ¼ sec.19, T.37 N., R.17 W., Camden County, MO, Hydrologic Unit 10290110, at left end of concrete structure on top of Tunnel Dam, 6.5 mi southeast of Macks Creek.

DRAINAGE AREA.--598 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--September 1995 to current year.

GAGE.--Water-stage recorder. Datum of gage is 691.57 ft above North American Vertical Datum of 1988.

REMARKS.--Records good except for estimated daily discharges, which are poor. Flow partially regulated by Tunnel Dam.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,760 ft^3/s, Jul 3, gage height, 9.15 ft; minimum discharge, 15 ft^3/s, Sep 17, gage height, 1.18 ft.

06923950 NIANGUA RIVER AT TUNNEL DAM NEAR MACKS CREEK, MO—Continued

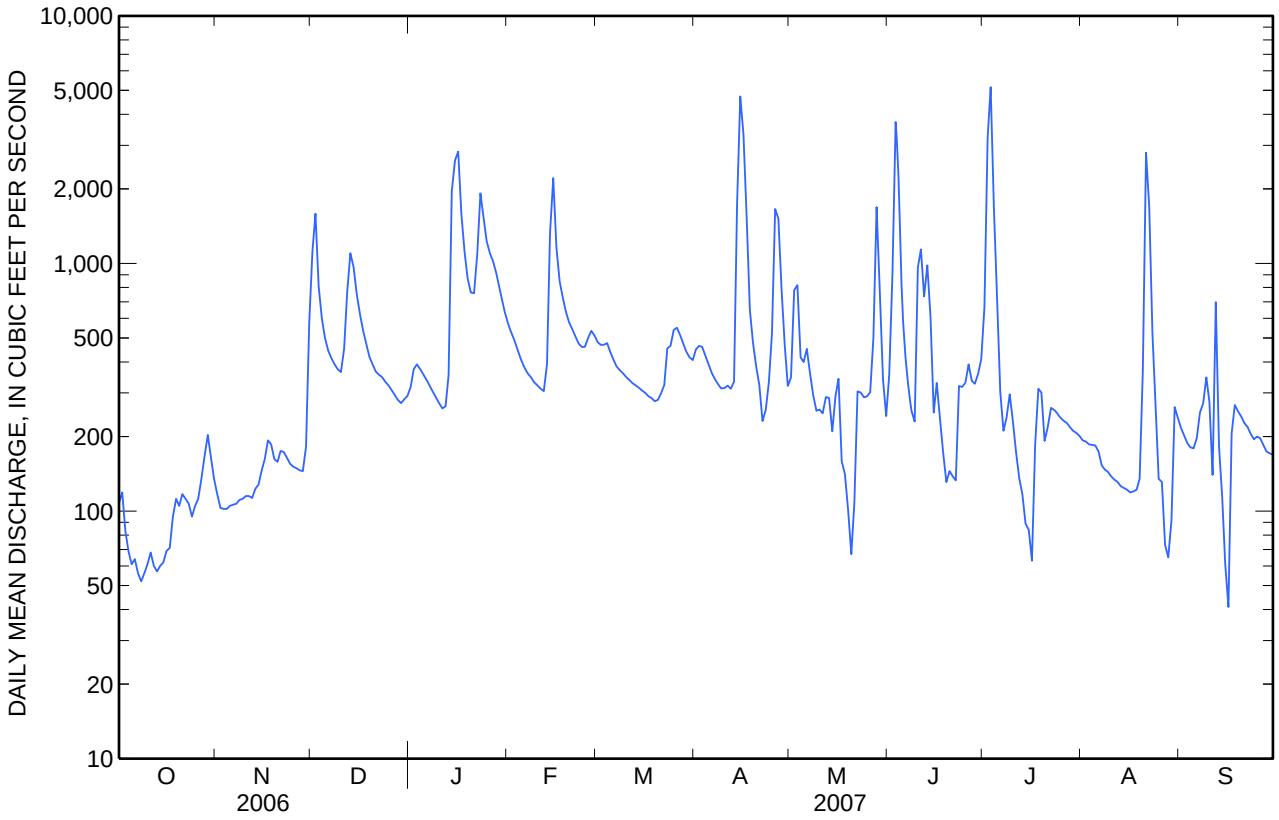
DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	108	e117	1,120	317	559	481	450	346	356	666	193	217
2	119	103	1,590	374	516	469	465	782	903	3,230	191	202
3	e83	102	808	391	478	470	460	817	3,730	5,160	186	188
4	e69	102	599	375	438	477	425	418	2,000	1,690	185	181
5	e61	105	498	356	404	438	389	400	744	721	184	179
6	e64	106	444	338	378	408	361	452	439	302	174	197
7	e56	107	415	321	359	384	341	360	318	211	153	250
8	e52	111	392	305	346	371	325	293	254	238	147	272
9	e56	112	374	286	331	360	313	254	230	296	144	347
10	e61	115	364	273	322	348	314	257	966	230	138	276
11	e68	115	452	260	312	338	321	248	1,140	172	134	140
12	e60	113	763	265	305	328	312	289	736	135	131	698
13	e57	123	1,100	354	392	322	333	286	983	117	126	183
14	e60	128	969	1,960	1,330	315	1,740	210	608	89	124	114
15	e62	146	752	2,610	2,210	307	4,730	291	250	84	122	61
16	e69	162	624	2,830	1,160	300	3,310	342	329	63	119	41
17	e71	193	539	1,580	848	291	1,530	159	237	186	120	206
18	e95	186	475	1,110	727	286	649	141	172	312	122	268
19	e112	162	420	870	639	278	482	101	131	301	135	253
20	e105	158	391	763	579	281	385	67	145	192	371	241
21	e117	175	366	759	543	299	323	108	138	219	2,800	227
22	e112	173	355	1,090	507	323	231	304	133	261	1,690	219
23	e107	164	348	1,920	475	454	256	301	320	256	523	205
24	e95	155	333	1,540	460	465	333	288	317	248	263	195
25	e105	151	322	1,230	461	539	523	291	330	238	135	200
26	e112	149	308	1,100	500	550	1,660	302	391	232	131	197
27	e135	146	294	1,020	535	514	1,520	500	336	227	73	185
28	e167	145	281	913	511	474	787	1,690	327	218	65	174
29	e203	182	273	801	---	440	466	770	357	211	92	171
30	e164	576	283	696	---	418	320	341	411	207	263	169
31	e135	---	292	616	---	407	---	242	---	201	239	---
Mean	94.8	153	534	891	594	391	802	376	591	546	306	215
Max	203	576	1,590	2,830	2,210	550	4,730	1,690	3,730	5,160	2,800	698
Min	52	102	273	260	305	278	231	67	131	63	65	41
In.	0.18	0.29	1.03	1.72	1.03	0.75	1.50	0.72	1.10	1.05	0.59	0.40

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 2007, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	195	344	304	473	427	487	566	692	270	206	178	180
Max	492	1,345	613	2,589	845	1,458	1,696	2,819	591	546	385	462
(WY)	(1999)	(1997)	(2005)	(2005)	(2001)	(1998)	(1999)	(2002)	(2007)	(2007)	(1997)	(1996)
Min	59.8	66.8	130	56.9	39.2	47.9	106	28.1	55.4	54.8	43.9	76.0
(WY)	(1998)	(1998)	(1998)	(1997)	(1996)	(1996)	(2000)	(1997)	(1996)	(1997)	(1996)	(2006)

06923950 NIANGUA RIVER AT TUNNEL DAM NEAR MACKS CREEK, MO—Continued

SUMMARY STATISTICS

	Calendar Year 2006		Water Year 2007		Water Years 1995 - 2007	
Annual mean	246		457		363	
Highest annual mean					564	2005
Lowest annual mean					143	2000
Highest daily mean	4,230	Apr 30	5,160	Jul 3	24,100	Jan 6, 2005
Lowest daily mean	47	Sep 22	41	Sep 16	0.00	Oct 18, 1997
Annual seven-day minimum	54	Sep 21	59	Oct 7	8.1	Sep 25, 1997
Maximum peak flow			6,760	Jul 3	28,800	Jan 6, 2005
Maximum peak stage			9.15	Jul 3	16.33	Jan 6, 2005
Instantaneous low flow			15	Sep 17	0.00	Oct 18, 1997
Annual runoff (inches)	5.59		10.37		8.26	
10 percent exceeds	417		907		559	
50 percent exceeds	159		302		180	
90 percent exceeds	76		108		80