Water-Data Report 2012

07025400 NORTH FORK OBION RIVER NEAR MARTIN, TN

Hatchie-Obion Basin
South Fork Obion Subbasin

LOCATION.--Lat 36°24'18.89", long 88°51'16.95" referenced to North American Datum of 1927, Weakley County, TN, Hydrologic Unit 08010203, on right bank on U.S. Highway 45E, 4.0 miles north of Martin.

DRAINAGE AREA.--372 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 2001 to current year. Annual maximum at unknown datum, 1939 to 1967. Periodic measurements of discharge and miscellaneous water-quality data, 1979 to 1987. Annual maximum at present datum, 1997 to 2001.

GAGE.--Data collection platform, operated in cooperation with the Memphis District Corps of Engineers. Datum of gage is 303.46 ft above NGVD of 1929, determined by the Memphis District Corps of Engineers.

COOPERATION.--Gage operated jointly with the Memphis District U.S. Army Corps of Engineers.

REMARKS.--Records good, except for estimated record which is poor.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge for years 1939-2001, 30,300 ft^3/s, Nov. 19, 1957, stage 23.05; minimum discharge, 40 ft^3/s, Feb. 7, 1946 from reports by Memphis District U.S. Army Corps of Engineers.

REVISIONS.--On May 20, 2013, the maximum peak flow for water year 2002 was revised to 15,200 ft^3/s and gage height 21.46 feet (Nov. 30, 2001) which matches the data originally published in WDR TN-02-1 (2003). A maximum peak flow of 14,400 ft^3/s at a gage height of 20.38 feet (Dec. 1, 2001) was incorrectly published in the summary statistics tables for the 2010 and 2011 reports: http://wdr.water.usgs.gov/wy2010/pdfs/07025400.2010.pdf http://wdr.water.usgs.gov/wy2011/pdfs/07025400.2011.pdf

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 6,000 ft^3/s and (or) maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov 16	0900	6,870	18.24
Dec 6	0500	*11,600	*20.63
Jan 23	0600	6,570	17.81
Mar 8	1800	7,700	19.24

Minimum discharge, 140 ft^3/s, July 8.

07025400 NORTH FORK OBION RIVER NEAR MARTIN, TN—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012
DAILY MEAN VALUES
[e, estimated]

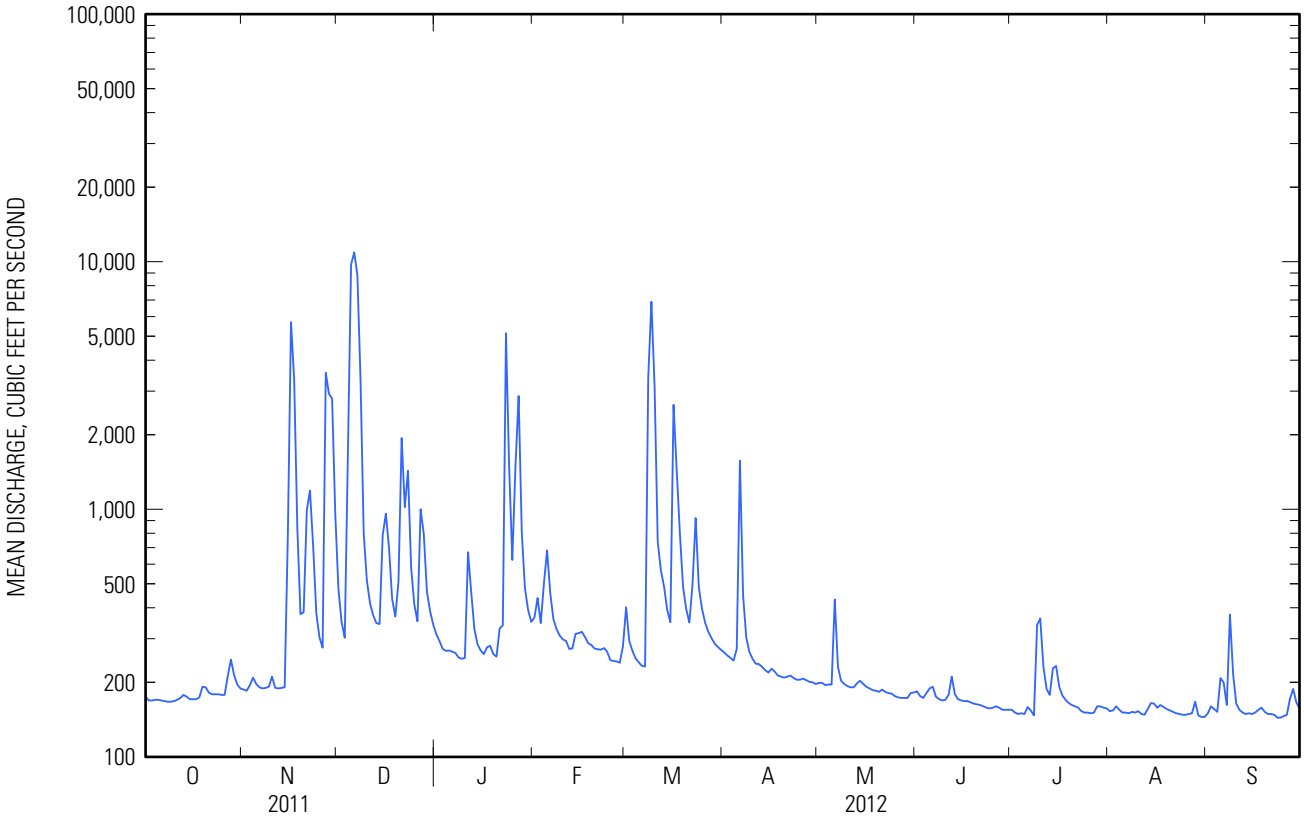
Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	175	187	477	312	365	402	264	199	184	e155	153	150
2	169	185	350	293	438	294	257	199	176	e151	154	160
3	169	195	303	273	347	268	251	195	173	e149	e160	156
4	170	209	1,690	268	501	250	245	196	181	e150	e155	152
5	170	197	9,740	269	682	241	273	196	189	e149	e151	208
6	169	191	10,900	266	459	233	1,570	432	192	e159	e151	200
7	168	189	8,840	263	360	232	449	231	175	154	e150	162
8	167	190	3,310	252	328	3,410	304	203	171	147	e152	376
9	167	192	796	249	309	6,890	265	197	169	341	151	216
10	168	211	515	251	298	3,160	249	193	170	362	153	164
11	170	190	417	671	294	738	238	191	178	231	149	155
12	173	189	373	463	273	566	237	191	211	188	148	151
13	178	190	347	329	274	488	231	198	179	178	156	149
14	175	191	344	285	314	392	224	203	171	228	165	150
15	171	785	785	269	316	350	219	197	169	233	164	149
16	171	5,700	960	260	320	2,640	227	192	168	192	158	151
17	171	3,340	699	277	305	1,440	221	189	168	177	162	155
18	174	841	433	281	288	803	213	186	166	170	159	158
19	192	377	369	260	283	488	211	185	164	165	156	152
20	191	384	512	254	274	396	209	183	163	162	154	149
21	182	992	1,940	330	272	349	211	187	162	160	152	149
22	179	1,190	1,020	340	271	497	213	183	e160	158	150	148
23	179	712	1,430	5,140	275	922	208	181	e158	153	149	144
24	179	381	580	1,480	266	483	205	180	e157	151	148	144
25	178	304	413	624	246	397	205	176	e158	151	148	146
26	178	276	353	1,490	244	348	207	174	e160	150	149	148
27	212	3,560	1,000	2,870	243	320	204	173	e158	e151	150	172
28	247	2,930	794	805	240	302	201	173	e155	e160	167	188
29	214	2,800	464	480	280	287	200	173	e155	e160	147	166
30	196	959	387	392	---	278	197	181	e155	158	145	157
31	189	---	342	351	---	271	---	182	---	157	145	---
Total	5,591	28,237	50,883	20,347	9,365	28,135	8,408	6,119	5,095	5,550	4,751	5,025
Mean	180	941	1,641	656	323	908	280	197	170	179	153	168
Max	247	5,700	10,900	5,140	682	6,890	1,570	432	211	362	167	376
Min	167	185	303	249	240	232	197	173	155	147	145	144
Cfsm	0.48	2.53	4.41	1.76	0.87	2.44	0.75	0.53	0.46	0.48	0.41	0.45
In.	0.56	2.82	5.09	2.03	0.94	2.81	0.84	0.61	0.51	0.56	0.48	0.50

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2002 - 2012, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	310	532	981	708	741	782	786	888	311	225	222	305
Max	679	1,106	2,832	1,395	1,885	1,563	2,235	1,836	496	320	423	788
(WY)	(2003)	(2002)	(2002)	(2007)	(2003)	(2008)	(2011)	(2011)	(2003)	(2006)	(2005)	(2002)
Min	157	183	204	318	323	325	280	197	170	175	146	148
(WY)	(2011)	(2009)	(2011)	(2011)	(2012)	(2007)	(2012)	(2012)	(2012)	(2007)	(2007)	(2010)

07025400 NORTH FORK OBION RIVER NEAR MARTIN, TN—Continued

SUMMARY STATISTICS

	Calendar Year 2011		Water Year 2012		Water Years 2002 - 2012	
Annual total	308,812		177,506			
Annual mean	846		485		566	
Highest annual mean					918	2002
Lowest annual mean					393	2006
Highest daily mean	11,700	May 3	10,900	Dec 6	12,300	Dec 1, 2001
Lowest daily mean	154	Aug 31	144	Sep 23	140	Aug 25, 2007
Annual seven-day minimum	155	Aug 29	147	Sep 20	141	Aug 22, 2007
Maximum peak flow			11,600	Dec 6	15,200	Nov 30, 2001
Maximum peak stage			20.63	Dec 6	20.96	May 4, 2011
Instantaneous low flow			140	Jul 8	[a]140	Aug 25, 2007
Annual runoff (cfsm)	2.27		1.30		1.52	
Annual runoff (inches)	30.88		17.75		20.66	
10 percent exceeds	2,170		752		1,000	
50 percent exceeds	242		202		249	
90 percent exceeds	169		151		162	

[a] Also occurred Sept. 7, 2010, Jul. 8, 2012.