Water-Data Report 2012

06817700 NODAWAY RIVER NEAR GRAHAM, MO

Lower Missouri Basin
Nodaway Subbasin

LOCATION.--Lat 40°12'08.9", long 95°04'10.4" referenced to North American Datum of 1983, in NE ¼ NE ¼ NE ¼ sec.9, T.62 N., R.37 W., Holt County, MO, Hydrologic Unit 10240010, at right downstream end of State Highway A bridge, 0.15 mi east of Maitland, and 1.5 mi west of Graham.

DRAINAGE AREA.--1,520 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1982 to current year.

REVISED RECORDS.--WDR MO-94-1: 1993(M) and September monthly and yearly mean discharge.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 852.09 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except for estimated daily discharges, which are poor.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 9,700 ft^3/s and (or) maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Apr 15	1715	*21,500	*18.91

Minimum discharge, 49 ft^3/s, Aug. 24, Sept. 12.

Suggested citation: U.S. Geological Survey, 2013, Water-resources data for the United States, Water Year 2012: U.S. Geological Survey Water-Data Report WDR-US-2012, site 06817700, accessed at http://wdr.water.usgs.gov/wy2012/pdfs/06817700.2012.pdf

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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	133	127	172	364	273	2,000	2,240	1,080	356	390	88	75
2	128	e129	174	323	250	1,970	1,530	1,100	354	368	86	76
3	127	172	319	225	315	1,260	1,240	1,370	349	347	84	73
4	125	181	1,600	263	e475	1,040	1,040	3,470	326	321	84	69
5	120	166	1,010	316	e710	895	1,360	2,680	303	297	103	68
6	117	163	692	365	563	782	1,110	1,730	279	278	101	66
7	e114	160	305	352	492	734	908	2,260	268	257	86	65
8	113	206	317	318	466	724	860	2,720	251	238	81	65
9	111	401	360	285	390	652	772	1,880	241	227	97	62
10	111	697	390	282	368	581	688	1,380	229	213	95	61
11	111	608	424	285	226	557	624	1,190	e325	196	80	59
12	111	517	479	178	223	594	583	1,060	1,960	185	77	55
13	116	392	503	154	289	628	1,560	961	935	177	73	70
14	122	337	751	225	343	631	1,750	872	579	173	73	86
15	119	312	1,610	e257	360	561	16,000	800	487	162	70	86
16	115	285	1,070	e264	413	515	11,100	751	849	152	70	78
17	115	252	862	e261	384	473	5,140	679	2,910	140	67	71
18	118	230	642	e256	383	447	3,700	626	1,480	131	71	70
19	118	225	582	e254	353	441	3,050	582	900	129	68	70
20	120	214	535	e256	340	521	2,790	558	674	124	67	67
21	123	217	499	e254	550	805	2,670	527	931	115	69	67
22	123	214	463	e251	1,140	1,410	2,050	488	1,150	112	66	64
23	124	208	394	e249	1,500	1,600	1,750	456	1,010	107	59	61
24	125	202	311	e244	1,180	1,420	1,540	445	794	101	60	57
25	e125	194	351	239	1,200	1,160	1,430	431	657	96	82	61
26	123	208	377	228	1,090	976	1,290	434	639	102	413	63
27	124	213	406	242	937	867	1,130	391	544	116	739	61
28	125	198	404	247	892	782	1,080	389	488	143	254	57
29	125	191	385	246	935	e2,000	1,060	370	449	111	150	56
30	124	189	381	e257	---	e6,500	1,120	345	411	98	109	56
31	126	---	368	e278	---	4,170	---	351	---	94	88	---
Mean	120	260	553	265	588	1,216	2,439	1,044	704	184	120	66.5
Max	133	697	1,610	365	1,500	6,500	16,000	3,470	2,910	390	739	86
Min	111	127	172	154	223	441	583	345	229	94	59	55
In.	0.09	0.19	0.42	0.20	0.42	0.92	1.79	0.79	0.52	0.14	0.09	0.05

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 2012, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	457	422	440	344	675	1,159	1,414	2,105	2,081	1,314	552	543
Max	3,465	1,735	2,026	1,199	1,839	4,479	3,614	7,379	11,370	12,460	2,758	3,364
(WY)	(2008)	(1993)	(1993)	(1983)	(1983)	(2010)	(1984)	(2007)	(2008)	(1993)	(1987)	(1993)
Min	32.2	53.8	42.9	37.8	57.5	101	58.8	48.6	68.5	73.5	46.2	34.7
(WY)	(2004)	(2003)	(2003)	(2003)	(2006)	(2006)	(1989)	(1989)	(1988)	(2006)	(1988)	(2003)

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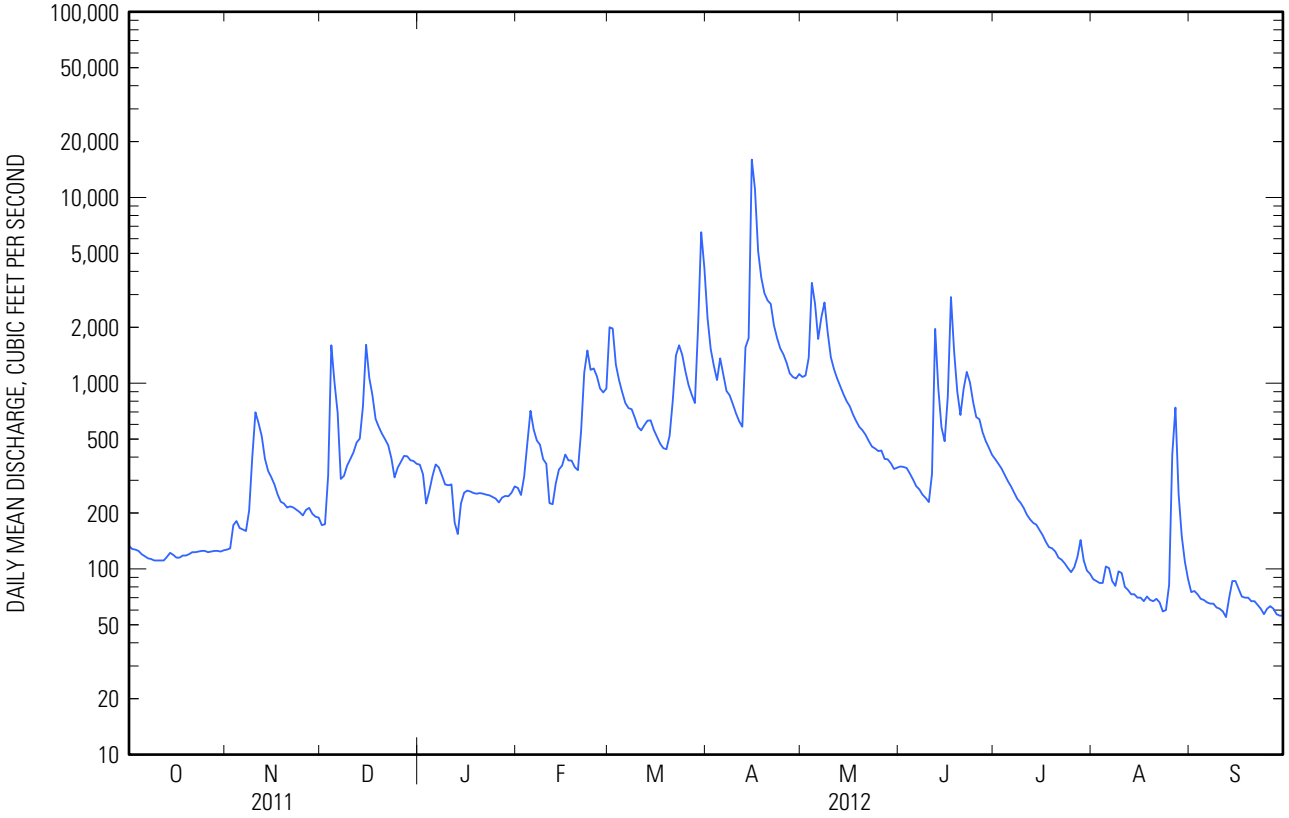
SUMMARY STATISTICS

	Calendar Year 2011		Water Year 2012		Water Years 1983 - 2012	
Annual mean	1,017		628		949	
Highest annual mean					2,870	1993
Lowest annual mean					179	2006
Highest daily mean	18,500	Jun 27	16,000	Apr 15	52,000	Jul 23, 1993
Lowest daily mean	111	Oct 9[a]	55	Sep 12	22	Jan 19, 2003
Annual seven-day minimum	112	Oct 7	59	Sep 24	26	Sep 4, 2003
Maximum peak flow			21,500	Apr 15	78,300	Jul 23, 1993
Maximum peak stage			18.91	Apr 15	26.16	Jul 23, 1993
Instantaneous low flow			49	Aug 24[b]	19	Feb 19, 2006
Annual runoff (inches)	9.09		5.62		8.48	
10 percent exceeds	2,350		1,370		2,110	
50 percent exceeds	493		316		354	
90 percent exceeds	152		73		65	

[a] Also Oct 10-12
[b] Also Sep 12



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GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012
OBSERVATION AT 0800
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	1.49	1.39	1.59	2.18	2.11	4.08	5.09	3.76	2.52	2.31	1.43	1.36
2	1.46	e1.36	1.58	2.11	1.99	4.82	4.20	3.87	2.49	2.26	1.42	1.37
3	1.46	1.55	1.69	1.69	e2.05	3.72	3.75	3.78	2.51	2.23	1.41	1.35
4	1.46	1.61	4.55	1.73	---	3.40	3.42	6.26	2.45	2.17	1.39	1.33
5	1.44	1.58	3.26	2.09	e3.02	3.16	3.74	5.38	2.40	2.09	1.48	1.33
6	1.44	1.55	3.03	2.20	2.63	2.97	3.56	4.67	2.32	2.06	1.53	1.31
7	e1.39	1.53	2.05	2.16	2.45	2.87	3.15	4.49	2.28	2.01	1.43	1.30
8	1.39	1.66	2.21	2.07	2.43	2.89	3.15	5.74	2.24	1.94	1.40	1.30
9	1.39	2.14	2.29	1.98	2.23	2.78	3.00	4.86	2.20	1.93	1.42	1.29
10	1.38	2.80	2.40	1.95	2.20	2.66	2.87	4.27	2.15	1.89	1.50	1.28
11	1.39	2.64	2.30	1.96	1.83	2.58	2.76	3.97	e2.22	1.83	1.40	1.28
12	1.39	2.53	2.35	1.59	1.72	2.63	2.62	3.78	5.44	1.82	1.39	1.25
13	1.40	2.23	2.50	1.51	1.89	2.73	3.20	3.62	3.57	1.78	1.35	1.32
14	1.44	2.09	2.58	1.71	2.08	2.73	4.48	3.47	2.82	1.77	1.37	1.41
15	1.42	2.02	4.48	e1.87	2.16	2.64	16.33	3.36	2.60	1.75	1.36	1.43
16	1.40	1.95	3.37	e1.90	2.22	2.53	13.66	3.28	2.49	1.71	1.34	1.39
17	1.41	1.86	3.15	e1.89	2.20	2.44	8.16	3.17	6.12	1.67	1.34	1.35
18	1.41	1.75	2.77	e1.87	2.23	2.38	6.58	3.08	4.18	1.64	1.37	1.33
19	1.42	1.76	2.66	e1.86	2.15	2.34	5.92	3.01	3.23	1.62	1.34	1.32
20	1.42	1.70	2.51	e1.87	2.06	2.49	5.55	2.95	2.87	1.60	1.33	1.31
21	1.43	1.73	2.46	e1.89	2.30	2.81	5.67	2.90	3.12	1.57	1.35	1.30
22	1.43	1.72	2.40	e1.91	3.18	3.86	4.88	2.82	3.50	1.55	1.34	1.29
23	1.42	1.69	2.29	1.92	4.12	4.26	4.52	2.75	3.40	1.53	1.30	1.27
24	1.43	1.70	2.08	e1.94	3.56	3.99	4.27	2.72	3.00	1.50	1.22	1.23
25	e1.42	1.63	2.12	1.96	3.58	3.62	4.15	2.68	2.82	1.46	1.38	1.26
26	1.40	1.70	2.22	e1.93	3.46	3.33	4.01	2.73	2.81	1.49	1.99	1.26
27	1.41	1.74	2.26	1.93	3.18	3.13	3.78	2.62	2.64	1.57	3.35	1.26
28	1.40	1.67	2.27	e2.02	3.05	3.02	3.69	2.60	2.52	1.71	2.15	1.21
29	1.40	1.65	2.23	2.07	3.16	---	3.67	2.55	2.44	1.55	1.78	1.20
30	1.37	1.65	2.20	e2.06	---	---	3.85	2.48	2.35	1.48	1.57	1.20
31	1.38	---	2.15	e2.10	---	7.39	---	2.49	---	1.47	1.45	---
Mean	1.42	1.82	2.52	1.93	---	---	4.92	3.55	2.92	1.77	1.51	1.30
Max	1.49	2.80	4.55	2.20	---	---	16.33	6.26	6.12	2.31	3.35	1.43
Min	1.37	1.36	1.58	1.51	---	---	2.62	2.48	2.15	1.46	1.22	1.20