Water-Data Report 2011

03354000 WHITE RIVER NEAR CENTERTON, IN

White River Basin

LOCATION.--Lat 39°29′51″, long 86°24′02″ referenced to North American Datum of 1927, in NE ¼ NE ¼ sec.10, T.12 N., R.1 E., Morgan County, IN, Hydrologic Unit 05120201, on right bank at upstream side of bridge on Blue Bluff Road, 0.8 mi downstream from White Lick Creek, 1 mi south of Centerton, and at mile 199.3.

DRAINAGE AREA.—2,444 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--July 1925 to September 1930 (gage heights only), October 1930 to March 1932, October 1946 to current year. Monthly discharge only for October and November 1946, published in WSP 1305. Published as West Fork White River at Martinsville prior to March 1932, and as West Fork White River near Centerton October 1946 to September 1948.

REVISED RECORDS.--WSP 1335: 1948-49. WSP 1909: 1931(M). WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 595.44 ft above National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark), levels by Indianapolis Power and Light Co. See WSP 1725 for history of changes prior to July 1953. July 1953 to Aug. 7, 1975, water-stage recorder at site 0.4 mi downstream at same datum.

REMARKS.--Records poor. Flow regulated by upstream reservoirs. (Former National stream-quality accounting network station).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of 22.8 ft at Martinsville site (from information by Indiana State Highway Commission) and 21.9 ft at site 0.4 mi downstream (from information by Corps of Engineers), discharge, 90,000 ft^3/s.

03354000 WHITE RIVER NEAR CENTERTON, IN—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	415	423	1,620	2,540	e780	27,500	2,020	12,100	4,110	1,730	751	512
2	408	419	1,280	4,100	761	30,100	2,040	10,800	3,340	1,590	682	504
3	454	409	1,380	3,920	753	27,600	1,980	14,300	2,890	1,520	633	486
4	457	401	1,180	2,800	755	19,400	4,960	14,000	2,610	1,410	621	488
5	438	402	1,050	1,960	761	22,300	6,750	12,800	4,520	1,360	677	480
6	427	406	935	1,540	747	28,800	5,210	9,910	5,090	1,260	684	493
7	417	401	835	1,270	759	25,300	5,420	7,380	4,310	1,180	649	500
8	406	402	746	1,120	761	22,800	3,990	6,640	3,210	1,260	631	512
9	401	407	667	965	708	17,600	3,690	5,650	2,630	1,190	920	526
10	454	416	643	874	642	10,600	3,930	4,830	2,380	1,120	1,170	542
11	461	419	674	840	620	9,400	5,230	4,220	3,190	1,040	1,280	549
12	430	414	815	839	628	7,740	5,630	3,950	4,650	972	973	586
13	401	410	866	798	708	6,210	4,500	3,630	4,380	913	800	542
14	469	419	849	778	1,140	5,260	3,760	3,180	3,240	892	787	508
15	447	429	827	766	1,760	4,820	3,180	3,770	3,170	841	782	518
16	417	443	772	739	1,970	5,200	3,820	4,430	3,680	810	838	515
17	422	580	747	693	3,380	5,270	3,580	5,030	3,040	766	774	497
18	431	569	773	717	6,740	4,950	3,110	4,420	3,070	758	692	488
19	430	540	723	920	9,780	4,580	9,860	3,850	4,730	749	637	656
20	430	523	686	890	9,410	4,030	26,500	3,450	8,630	716	599	1,850
21	417	502	694	835	7,920	3,630	22,700	3,110	18,100	709	575	1,160
22	404	476	696	764	12,100	3,300	19,300	2,950	19,000	701	615	845
23	397	675	680	730	10,900	3,130	15,900	3,400	9,880	688	589	831
24	402	845	657	731	8,530	3,030	11,300	3,670	5,350	676	561	786
25	442	1,740	646	737	7,920	3,050	12,000	3,280	3,850	757	556	791
26	450	2,960	629	742	6,620	2,950	13,200	8,680	3,340	919	610	3,650
27	628	2,050	621	720	5,370	2,650	16,500	10,400	3,440	841	603	3,080
28	543	1,870	603	714	15,600	2,430	22,900	10,900	3,030	789	549	2,470
29	493	1,340	593	705	---	2,260	23,000	9,130	2,390	717	526	1,720
30	467	1,660	628	687	---	2,150	19,300	6,440	1,960	728	513	1,280
31	433	---	982	e687	---	2,090	---	5,380	---	760	500	---
Total	13,691	22,950	25,497	37,121	118,523	320,130	285,260	205,680	147,210	30,362	21,777	28,365
Mean	442	765	822	1,197	4,233	10,330	9,509	6,635	4,907	979	702	946
Max	628	2,960	1,620	4,100	15,600	30,100	26,500	14,300	19,000	1,730	1,280	3,650
Min	397	401	593	687	620	2,090	1,980	2,950	1,960	676	500	480
Cfsm	0.18	0.31	0.34	0.49	1.73	4.23	3.89	2.71	2.01	0.40	0.29	0.39
In.	0.21	0.35	0.39	0.57	1.80	4.87	4.34	3.13	2.24	0.46	0.33	0.43

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 2011, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	991	1,808	2,673	3,539	3,789	4,757	4,391	3,333	2,796	1,918	1,103	1,027
Max	6,725	11,760	8,248	17,760	10,430	11,220	11,530	11,280	10,310	9,354	6,001	9,121
(WY)	(2002)	(1994)	(1958)	(1950)	(1950)	(2007)	(1964)	(1996)	(1998)	(2003)	(1979)	(2003)
Min	281	320	305	302	460	1,083	1,097	799	419	344	338	213
(WY)	(1964)	(1954)	(1964)	(1977)	(1964)	(2000)	(1971)	(1976)	(1988)	(1954)	(1966)	(1954)

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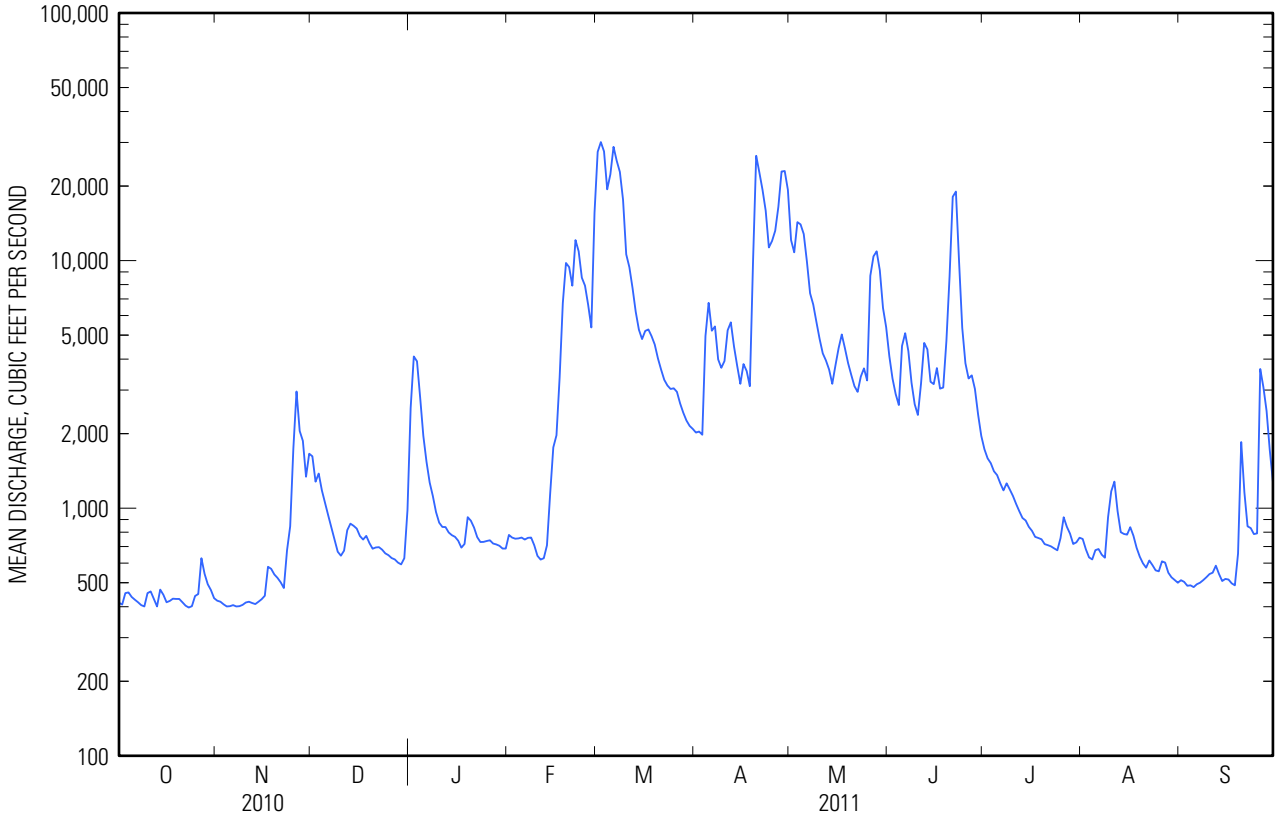
SUMMARY STATISTICS

	Calendar Year 2010		Water Year 2011		Water Years 1948 - 2011	
Annual total	897,815		1,256,566			
Annual mean	2,460		3,443		2,670	
Highest annual mean					4,133	2008
Lowest annual mean					812	1954
Highest daily mean	28,200	Jun 23	30,100	Mar 2	51,700	Jan 6, 2005
Lowest daily mean	397	Oct 23	397	Oct 23	138	Sep 27, 1954
Annual seven-day minimum	404	Nov 3	404	Nov 3	157	Sep 27, 1954
Maximum peak flow			31,400	Mar 6	65,700	Sep 2, 2003
Maximum peak stage			16.17	Mar 6	20.04	Sep 2, 2003
Annual runoff (cfsm)	1.01		1.41		1.09	
Annual runoff (inches)	13.67		19.13		14.85	
10 percent exceeds	5,260		9,810		6,000	
50 percent exceeds	1,430		920		1,410	
90 percent exceeds	436		445		425	



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WATER-QUALITY RECORDS

PERIOD OF RECORD.--
WATER TEMPERATURE: October 1955 to April 1956; October 1966 to September 1967; January 1970 to September 1972; August 1975 to December 1977; June 1978 to December 1978; March 1980 to October 1984; and December 1988 to current year.

INSTRUMENTATION.--Temperature recorder.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 33.1°C, Sept. 7, 1977; minimum, -0.6°C, on a few days during 1976 ,1977, 1999, and 2001.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 32.7°C, July 21, 22; minimum, 1.3°C, Dec. 15.

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
		October			November			December			January	
1	20.8	18.0	19.3	14.2	12.6	13.3	8.2	6.3	7.1	8.4	5.3	7.2
2	19.1	16.8	17.8	13.2	11.8	12.5	7.1	5.7	6.4	5.3	3.3	4.2
3	17.1	15.7	16.5	13.4	11.1	12.4	7.3	6.7	7.0	3.6	2.7	3.1
4	17.7	15.3	16.4	13.2	12.3	12.8	6.8	5.9	6.2	3.8	2.8	3.3
5	18.3	15.3	16.7	12.7	11.9	12.3	6.1	5.4	5.8	3.9	2.6	3.2
6	18.8	15.6	17.2	12.7	10.8	11.8	5.6	3.3	4.1	3.8	3.3	3.6
7	20.5	17.4	18.8	12.7	10.4	11.6	3.6	2.8	3.2	3.3	2.9	3.0
8	20.6	17.5	19.1	13.9	11.3	12.6	3.5	2.5	3.1	2.9	2.0	2.4
9	21.0	17.8	19.5	14.6	12.0	13.3	4.4	2.9	3.5	2.6	1.7	2.2
10	22.3	19.2	20.7	15.2	12.9	14.1	6.2	4.4	5.3	3.5	2.5	3.0
11	22.5	20.4	21.5	15.8	13.4	14.7	7.1	5.8	6.5	3.7	3.1	3.4
12	21.3	20.0	20.7	16.3	14.1	15.2	7.0	3.8	5.4	3.3	2.8	3.1
13	20.6	19.0	19.9	15.2	14.0	14.7	3.8	2.3	3.0	3.3	2.7	3.0
14	20.1	17.9	19.0	15.0	13.4	14.2	2.8	1.9	2.3	4.2	3.0	3.6
15	19.3	17.1	18.3	13.4	12.0	12.6	2.3	1.3	1.9	4.7	4.1	4.3
16	18.9	16.3	17.6	12.2	11.0	11.4	3.8	1.9	2.7	4.8	3.6	4.2
17	19.5	16.7	18.1	12.4	10.6	11.6	4.4	3.8	4.1	5.2	3.5	4.3
18	18.5	16.9	17.8	12.4	11.3	12.1	4.2	3.5	3.9	6.2	5.2	5.7
19	18.8	16.5	17.5	11.3	10.0	10.5	4.3	3.3	3.8	6.0	4.6	5.1
20	17.9	15.8	16.8	11.2	10.1	10.6	5.2	4.1	4.6	4.7	2.8	3.7
21	17.7	15.8	16.6	12.4	9.9	10.9	5.7	4.8	5.3	2.8	1.7	2.3
22	16.9	14.4	15.7	15.0	12.4	13.8	5.6	5.1	5.4	2.5	1.5	2.0
23	16.6	15.3	15.9	15.0	12.5	14.0	5.5	4.5	5.0	3.5	2.4	3.0
24	18.1	16.1	17.0	12.5	8.8	10.3	6.2	5.2	5.6	4.4	3.4	3.8
25	19.2	17.9	18.5	10.1	8.7	9.4	6.0	5.3	5.7	5.5	4.0	4.7
26	19.7	18.2	19.0	8.7	7.3	7.9	5.3	4.4	4.8	5.0	4.5	4.8
27	18.8	17.1	17.9	8.0	6.8	7.3	4.5	3.6	4.0	5.1	4.3	4.7
28	17.1	13.6	14.9	7.3	6.0	6.7	4.6	3.1	3.9	5.2	4.5	4.8
29	14.9	12.5	13.7	8.8	6.4	7.4	5.9	3.6	4.6	5.6	4.3	4.9
30	14.5	12.6	13.6	9.5	8.2	9.1	7.8	5.9	6.8	6.6	5.0	5.7
31	14.9	13.1	13.9	---	---	---	8.3	6.7	7.3	---	---	---
Month	22.5	12.5	17.6	16.3	6.0	11.7	8.3	1.3	4.8	8.4	1.5	3.9

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TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
		February			March			April			May	
1	---	---	---	8.0	6.3	7.0	10.8	10.0	10.4	15.8	15.4	15.6
2	2.9	2.1	2.5	7.2	6.1	6.7	12.1	9.4	10.7	15.4	13.9	14.6
3	3.6	1.8	2.7	7.0	6.2	6.7	14.2	11.1	12.6	13.9	12.8	13.4
4	4.3	2.6	3.5	7.9	6.7	7.1	14.6	13.1	14.1	14.0	13.1	13.6
5	4.8	3.8	4.2	8.8	7.9	8.4	13.1	11.4	12.3	14.3	12.6	13.5
6	5.9	4.2	5.0	7.9	6.8	7.1	13.6	11.2	12.4	15.6	13.9	14.6
7	5.9	4.9	5.6	7.0	6.3	6.7	13.6	11.9	12.9	16.2	14.8	15.4
8	5.2	3.5	4.4	7.3	6.3	6.8	15.2	12.6	13.8	16.5	15.5	15.9
9	3.5	2.6	3.2	7.8	7.1	7.4	15.4	13.8	14.6	18.3	15.8	17.0
10	3.6	1.8	2.7	7.8	6.7	7.3	17.8	14.6	16.2	20.2	17.4	18.6
11	4.3	2.2	3.4	7.8	6.2	7.0	17.5	15.9	16.7	21.9	19.0	20.4
12	6.7	3.9	5.3	9.1	7.2	8.1	16.6	14.4	15.5	22.7	20.7	21.7
13	8.3	5.7	6.9	9.0	7.9	8.4	16.9	14.3	15.7	22.8	21.0	21.9
14	7.4	4.0	5.4	8.5	7.8	8.1	17.1	14.6	15.9	21.9	20.6	21.3
15	5.2	2.7	3.7	8.4	8.0	8.2	16.4	14.8	15.2	20.6	18.8	19.7
16	6.5	3.0	4.6	10.2	7.9	8.9	14.9	12.7	13.9	18.8	17.2	18.1
17	6.6	4.5	5.4	11.4	9.1	10.1	15.2	12.1	13.6	18.0	16.3	16.9
18	7.4	6.4	6.9	12.0	11.2	11.6	16.3	13.9	15.1	16.3	15.9	16.1
19	6.4	5.4	5.8	12.2	10.4	11.3	15.8	11.7	13.2	18.2	15.8	16.9
20	5.7	5.3	5.5	12.2	10.8	11.5	13.1	12.0	12.7	19.8	16.7	18.3
21	6.6	5.7	6.2	14.4	12.0	13.1	13.3	11.3	12.3	19.9	18.5	19.3
22	6.2	4.5	5.1	14.9	13.5	14.3	12.7	12.0	12.2	21.3	19.1	20.1
23	4.5	3.9	4.1	16.1	14.4	15.1	13.8	12.3	13.1	22.7	19.9	21.2
24	4.8	4.0	4.4	15.1	11.9	13.4	13.9	13.6	13.7	23.0	20.3	21.6
25	4.6	3.7	4.1	11.9	11.1	11.4	15.0	13.8	14.2	23.2	20.9	22.4
26	4.6	4.2	4.4	11.1	9.5	10.3	15.7	14.9	15.2	20.9	19.4	20.1
27	6.8	4.6	5.4	10.6	8.3	9.4	15.6	15.0	15.3	19.4	18.2	18.6
28	10.0	6.8	8.8	11.2	9.0	10.1	15.3	13.9	14.4	18.8	18.0	18.4
29	---	---	---	10.4	9.7	10.1	15.7	13.6	14.6	21.1	18.6	19.7
30	---	---	---	10.4	9.5	9.9	15.9	14.2	15.1	23.3	20.3	21.7
31	---	---	---	11.1	8.8	10	---	---	---	24.5	21.8	23.2
Month	---	---	---	16.1	6.1	9.4	17.8	9.4	13.9	24.5	12.6	18.4

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TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
		June			July			August			September	
1	25.3	22.8	24.0	25.6	24.3	24.8	31.3	28.1	29.8	28.5	25.1	26.7
2	24.3	22.2	22.9	27.0	23.7	25.2	31.5	28.2	29.8	29.6	26.2	27.8
3	24.0	21.8	22.9	27.8	25.0	26.3	30.7	28.2	29.4	29.5	26.7	28.1
4	25.7	22.2	23.9	26.6	25.3	26.0	30.2	26.8	28.5	28.1	25.6	27.0
5	24.7	22.8	23.4	27.7	23.9	25.7	28.9	27.1	28.0	25.6	21.9	23.6
6	25.0	22.3	23.6	28.4	25.2	26.7	29.0	26.9	27.9	21.9	20.0	20.8
7	26.3	23.1	24.6	28.5	26.0	27.2	30.3	27.4	28.7	20.3	19.3	19.7
8	27.3	24.2	25.7	28.8	26.0	27.4	29.8	27.4	28.7	19.4	18.9	19.1
9	27.3	25.0	26.2	29.2	26.1	27.6	29.7	26.8	28.2	20.1	19.1	19.5
10	27.8	25.3	26.5	29.6	26.1	27.7	28.6	26.8	27.7	21.5	19.8	20.4
11	26.9	24.9	25.8	30.6	26.8	28.6	28.3	25.6	26.8	23.1	20.7	21.8
12	26.2	24.1	25.2	31.3	28.1	29.6	28.0	25.0	26.5	25.0	21.6	23.1
13	25.6	23.2	24.5	29.7	27.5	28.6	28.6	25.3	26.9	25.5	22.3	23.8
14	24.5	22.7	23.7	28.7	25.6	27.2	27.1	25.0	25.9	24.3	21.5	22.9
15	23.8	21.3	22.5	29.0	25.3	27.2	26.9	23.8	25.2	21.8	19.4	20.6
16	24.5	20.6	22.4	29.1	25.7	27.4	27.2	24.1	25.6	19.8	18.2	19.1
17	25.7	22.9	24.3	30.0	26.5	28.2	27.9	24.4	26.1	21.9	18.4	19.9
18	25.3	23.9	24.6	30.7	27.4	29.0	28.5	25.3	26.9	20.9	19.7	20.3
19	24.1	23.1	23.4	30.9	28.0	29.4	27.6	25.6	26.6	20.9	20.4	20.6
20	23.3	21.3	22.3	31.9	28.5	30.1	27.4	25.3	26.4	22.4	20.6	21.3
21	23.8	21.9	22.8	32.7	28.9	30.8	28.6	25.7	27.0	23.6	21.2	22.2
22	24.3	23.1	23.6	32.7	29.4	31.1	28.2	25.1	26.7	22.5	20.6	21.4
23	23.8	22.4	23.1	---	---	---	27.0	24.6	25.9	21.9	19.7	20.6
24	22.4	21.6	21.9	30.9	28.7	29.8	28.6	24.6	26.5	20.8	19.4	20.0
25	23.5	20.9	22.2	30.1	27.3	28.7	29.0	25.7	27.3	19.9	17.7	18.9
26	23.0	21.7	22.4	30.9	27.8	29.3	29.0	25.5	27.2	18.6	16.8	17.7
27	23.6	21.4	22.4	31.3	28.4	29.8	28.3	25.2	26.8	18.6	17.5	18.0
28	25.4	22.3	23.7	31.7	28.6	30.1	28.1	24.9	26.4	19.0	17.7	18.3
29	25.9	22.6	24.3	31.7	28.5	30.0	27.6	24.4	25.8	20.0	17.7	18.8
30	26.6	23.3	24.9	31.4	28.4	29.9	26.7	23.3	25.1	18.9	17.0	17.9
31	---	---	---	31.7	28.2	30.0	27.4	24.1	25.6	---	---	---
Month	27.8	20.6	23.8	---	---	---	31.5	23.3	27.1	29.6	16.8	21.3