Water-Data Report 2011

03048500 KISKIMINETAS RIVER AT VANDERGRIFT, PA

Allegheny Basin
Kiskiminetas Subbasin

LOCATION.--Lat 40°36′16″, long 79°33′08″ referenced to North American Datum of 1927, Westmoreland County, PA, Hydrologic Unit 05010008, on left bank, 0.5 mi upstream from bridge on State Highway Alternate 66 at Vandergrift, and 2.2 mi upstream from Pine Run.

DRAINAGE AREA.--1,825 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--August 1937 to current year. Monthly discharge only for some periods, published in WSP 1305. October 1920 to September 1932 (gage heights and discharge measurements only) in reports of Pennsylvania Department of Forests and Waters.

GAGE.--Water-stage recorder. Datum of gage is 769.40 ft above National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers benchmark). Oct 1, 1920 to Sep 30, 1930, nonrecording gage, Oct 1, 1930 to Sep 30, 1932, water-stage recorder, at site 0.6 mi downstream at different datum. Satellite telemetry at station.

COOPERATION.--Station established and maintained by the U.S. Geological Survey National Streamflow Information Program in cooperation with the U.S. Army Corps of Engineers, Pittsburgh District and the Pennsylvania Department of Environmental Protection.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated since June 1942 by Loyalhanna Lake (station 03046500), 20 mi upstream, since November 1951 by Conemaugh Lake (station 03043500), 23 mi upstream, since July 1971 by Yellow Creek Lake (station 03042260), and by other reservoirs upstream of station; the 11 most effective of which have a combined capacity of 105,700 acre-ft. Figures of daily discharge do not include diversion from Beaver Run Reservoir to plants and communities downstream, or into the Monongahela River Basin. Evaporation from operation of Homer City and Conemaugh generating stations, which began during 1969 and 1970, respectively, can amount to as much as 45 ft^3/s. Several measurements of water temperature were made during the year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar 18, 1936 reached a stage of 41.64 ft, from floodmark at present site, discharge, about 185,000 ft^3/s.

Suggested citation: U.S. Geological Survey, 2012, Water-resources data for the United States, Water Year 2011: U.S. Geological Survey Water-Data Report WDR-US-2011, site 03048500, accessed at http://wdr.water.usgs.gov/wy2011/pdfs/03048500.2011.pdf

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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	931	679	5,740	1,080	1,150	6,450	3,490	1,260	2,610	643	1,110	732
2	3,110	681	3,720	1,190	1,760	7,970	3,490	1,180	2,600	624	1,050	822
3	3,620	682	4,410	1,370	2,180	14,200	3,450	1,190	2,250	431	843	1,490
4	2,900	689	9,450	2,450	4,820	15,100	3,460	1,360	1,480	326	718	1,410
5	2,270	705	12,900	2,360	5,200	10,500	7,230	2,200	1,290	316	704	982
6	1,300	699	12,800	2,500	4,610	7,570	10,200	6,700	1,260	323	711	1,280
7	789	729	12,600	2,340	3,110	6,110	12,200	6,800	1,330	617	759	1,500
8	784	1,030	11,600	2,160	3,310	7,160	11,400	6,870	1,320	635	829	1,830
9	943	1,030	8,840	1,790	e3,250	10,700	10,500	6,920	1,250	353	1,170	4,180
10	941	1,030	5,960	e1,640	e3,180	6,380	9,710	6,980	985	377	1,720	4,580
11	915	986	4,040	e1,500	e3,050	6,890	8,770	6,580	1,070	683	2,230	7,570
12	690	740	3,680	e1,400	e2,950	8,670	8,120	5,770	1,310	699	2,130	8,760
13	678	728	3,110	e1,320	e2,850	14,600	8,480	5,220	1,310	684	1,910	8,780
14	689	672	2,780	e1,210	2,740	21,400	9,380	5,180	1,250	656	1,920	8,770
15	683	663	e2,430	e1,090	2,520	25,000	10,600	5,200	1,040	373	1,850	8,480
16	672	383	e2,160	e1,060	3,040	24,300	10,200	5,680	1,020	360	1,530	7,480
17	619	479	e2,210	e1,020	3,160	23,100	8,480	5,310	981	357	1,420	6,540
18	613	1,420	e1,890	1,130	3,820	20,800	8,890	5,440	708	354	1,240	4,500
19	629	2,730	e1,820	1,120	5,320	17,400	11,700	6,110	702	360	1,070	5,750
20	605	2,670	e1,720	1,210	6,860	13,200	11,700	6,590	732	320	1,040	5,050
21	322	2,450	e1,650	e1,400	8,020	8,410	11,500	7,620	1,020	298	1,060	5,110
22	309	1,730	e1,550	e1,400	8,490	6,570	10,600	7,430	1,160	650	1,140	5,420
23	609	1,380	e1,490	e1,280	9,580	4,670	7,740	7,230	1,190	616	1,060	5,310
24	618	1,300	e1,450	e775	9,030	5,220	7,620	6,220	928	325	1,020	4,920
25	646	1,450	e1,420	e851	7,050	8,860	7,910	4,200	797	474	921	4,960
26	690	1,930	e1,340	e846	6,040	8,520	8,800	4,220	755	431	784	4,870
27	808	3,730	e1,280	e919	5,930	7,810	8,460	3,470	753	1,170	881	4,410
28	757	6,400	e1,230	e1,070	8,130	6,940	7,520	3,070	738	1,270	1,070	4,140
29	978	6,420	e1,090	e1,060	---	5,600	7,700	4,230	676	1,770	857	4,230
30	960	5,910	e1,040	e1,060	---	4,030	6,400	4,140	668	1,150	707	4,060
31	920	---	1,000	e1,060	---	3,460	---	3,660	---	1,120	696	---
Total	31,998	52,125	128,400	42,661	131,150	337,590	255,700	154,030	35,183	18,765	36,150	137,916
Mean	1,032	1,738	4,142	1,376	4,684	10,890	8,523	4,969	1,173	605	1,166	4,597
Max	3,620	6,420	12,900	2,500	9,580	25,000	12,200	7,620	2,610	1,770	2,230	8,780
Min	309	383	1,000	775	1,150	3,460	3,450	1,180	668	298	696	732
Cfsm	0.57	0.95	2.27	0.75	2.57	5.97	4.67	2.72	0.64	0.33	0.64	2.52
In.	0.65	1.06	2.62	0.87	2.67	6.88	5.21	3.14	0.72	0.38	0.74	2.81

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1941, BY WATER YEAR (WY) (PRIOR TO REGULATION)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	911	1,082	2,639	2,393	4,801	5,828	6,329	2,268	2,983	1,247	892	571
Max	2,480	1,973	4,925	3,614	9,322	7,858	11,420	3,126	5,863	1,747	1,713	858
(WY)	(1938)	(1938)	(1938)	(1938)	(1939)	(1940)	(1940)	(1938)	(1941)	(1940)	(1941)	(1941)
Min	292	396	786	939	2,046	4,299	3,957	1,127	1,462	924	363	297
(WY)	(1939)	(1939)	(1939)	(1940)	(1941)	(1941)	(1941)	(1941)	(1939)	(1938)	(1939)	(1939)

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SUMMARY STATISTICS

	Water Years 1938 - 1941	
Annual total		
Annual mean	2,645	
Highest annual mean	2,925	1938
Lowest annual mean	2,314	1939
Highest daily mean	60,400	Mar 31 1940
Lowest daily mean	247	Nov 1 1938
Annual seven-day minimum	260	Oct 29 1938
Maximum peak flow	[a]71,900	Mar 31 1940
Maximum peak stage	25.70	Mar 31 1940
Annual runoff (cfsm)	1.45	
Annual runoff (inches)	19.69	
10 percent exceeds	6,120	
50 percent exceeds	1,370	
90 percent exceeds	344	

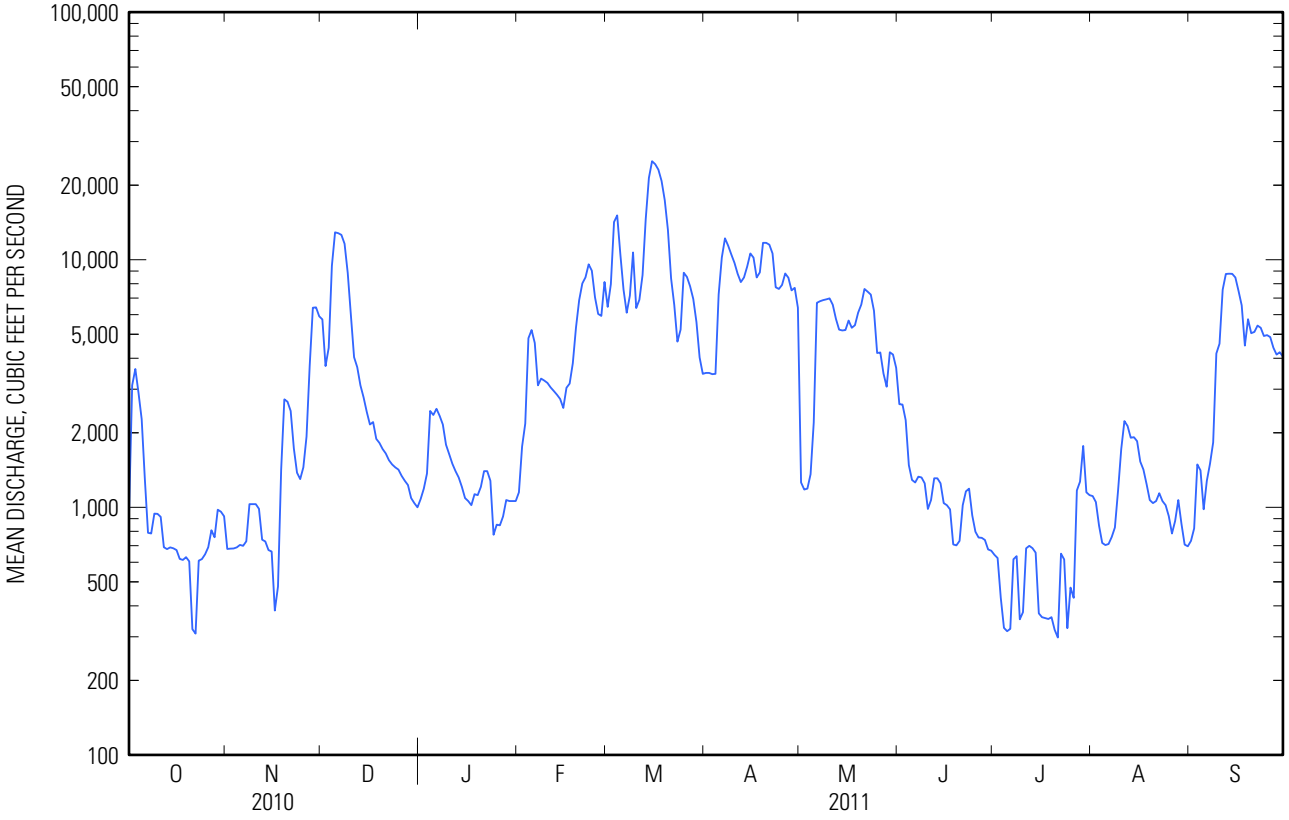
[a] From rating curve extended above 61,000 ft³/s.

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 2011, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	1,301	2,043	3,517	3,937	4,588	6,553	5,504	3,776	2,374	1,470	1,187	1,170
Max	6,429	7,570	9,057	10,830	10,140	12,400	12,550	7,245	8,262	5,469	4,138	6,408
(WY)	(1955)	(1998)	(1973)	(2005)	(1956)	(1945)	(1993)	(1978)	(1972)	(1977)	(1958)	(2004)
Min	255	307	426	847	1,720	1,802	1,727	1,228	568	378	373	309
(WY)	(1964)	(1954)	(1999)	(1956)	(2007)	(1969)	(1946)	(2001)	(1999)	(1965)	(2001)	(1991)

SUMMARY STATISTICS

	Calendar Year 2010		Water Year 2011		Water Years 1942 - 2011	
Annual total	1,042,328		1,361,668			
Annual mean	2,856		3,731		3,111	
Highest annual mean					4,902	2004
Lowest annual mean					1,777	1954
Highest daily mean	19,700	Mar 20	25,000	Mar 15	57,000	Dec 30, 1942
Lowest daily mean	281	Sep 13	298	Jul 21	60	Oct 15, 1952
Annual seven-day minimum	287	Sep 9	346	Jul 15	145	Nov 1, 1952
Maximum peak flow			25,300	Mar 15	[a]64,700	Mar 7, 1945
Maximum peak stage			15.96	Mar 15	25.34	Mar 7, 1945
Instantaneous low flow			268	Jul 21	60	Oct 15, 1952
Annual runoff (cfsm)	1.56		2.04		1.70	
Annual runoff (inches)	21.25		27.76		23.16	
10 percent exceeds	6,360		8,770		7,220	
50 percent exceeds	1,560		1,770		1,850	
90 percent exceeds	529		670		501	

[a] From rating curve extended above 61,000 ft³/s.

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