### DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

#### Low-flow partial record sites

Measurements of streamflow made at low-flow partial-record stations located in the area covered by this report are provided in the following table. The measurements were made during a period of base flow when streamflow is primarily the result of ground-water discharge. These measurements, when correlated with the simultaneous discharge of a nearby stream where historical continuous-record streamflow data are available, will give an indication of the low-flow status of the measured stream. The column headed "Period of Record" shows the water years in which measurements were made at the same, or practically the same, site.

The column headed "Unit Area Discharge" shows the result of the measured discharge divided by the drainage area at the low-flow site. This value is commonly used to make hydrologic comparisons among drainage basins and shows the relative discharge per square mile at each site. A unit area discharge value of 0.10 cubic feet per second per square mile  $((ft^3/s)/mi^2)$  is sometimes used as a rule of thumb to estimate the 7-day, 10-year (Q7,10) flow value. The 7-day, 10-year flow value is often used to develop limits for permitted withdrawals or discharges to streams. To compare these measured low-flow values to the computed 7-day, 10-year flow value, visit the USGS-PA Flow Statistics web site at http:// pa.water.er.usgs.gov/flowstats/ or, for stream data not available at the web site, refer to methods described in *Comparison of Methods for Computing Streamflow Statistics for Pennsylvania Streams* (USGS Water-Resources Investigations Report 99-4068), authored by Ehlke and Reed, to determine the 7-day, 10-year flow value.

#### Discharge measurements made at low-flow partial-record sites during water year 2002

						Measurement	<u>s</u>
Station Number	Station Name	Location	Drainage area (mi <sup>2</sup> )	Period of Record	Date	Unit Area Discharge ((ft <sup>3</sup> /s)/mi <sup>2</sup> )	Discharge (ft <sup>3</sup> /s)
		SUSQUEHANNA F	RIVER BAS	IN			
		WICONISCO CR	EEK BASIN				
01555570	Wiconisco Creek near Elizabeth- ville	Lat 40°33'40", long 76°48'30", Dauphin County, Hydrologic Unit 02050301, at bridge on State Highway 225, and 1.0 mi north of Elizabethville.	79.2	1949-50, 1970-74, 1982-83, 1985, 1987, 1989, 1991, 2002	9-11-02	.12	9.5
		JUNIATA RIV	ER BASIN				
01559700 <sup>a</sup>	Sulphur Springs Creek near Manns Choice	Lat 39°58'40", long 78°37'08", Bedford County, Hydrologic Unit 02050303, at bridge on State Highway 96, 2,000 ft upstream from mouth, and 2.3 mi south of Manns Choice.	5.28	1962-78≠, 1983, 1985, 1987, 1989, 1991, 2002	9-10-02	.01	.07
01559750	Raystown Branch Juniata River near Manns Choice	Lat 40°00'58", long 78°37'03", Bedford County, Hydrologic Unit 02050303, at bridge on State Highway 31, 0.3 mi upstream from Shawnee Branch, and 2.0 mi northwest of Manns Choice.	50.8	1952-53, 1970-79, 1983, 1985, 1987, 1989, 1991, 2002	9-10-02	<.01	.04
01559756	Shawnee Branch at Schellsburg	Lat 40°02'17", long 78°39'16", Bedford County, Hydrologic Unit 02050303, at covered bridge on Township Route 443, 0.3 mi upstream from mouth, and 0.9 mi southwest of Schellsburg.	18.6	1968-79, 1983, 1985, 1987, 1989, 1991, 2002	9-10-02	.06	1.1
01561000	Brush Creek at Gapsville	Lat 39°57'20", long 78°15'15", Bedford County, Hydrologic Unit 02050303, at covered bridge 0.8 mi northwest of Gapsville, 1.5 mi downstream from Lit- tle Brush Creek, and 5.5 mi upstream from Shaffer Creek.	36.8	1930-58≠, 1983, 1985, 1987, 1989, 1991, 2002	9-11-02	.02	.76
01565700	Little Lost Creek at Oakland Mills	Lat 40°36'19", long 77°18'42", Juniata County, Hydrologic Unit 02050304, at bridge on SR 2007, 0.8 mi south of Oak- land Mills, and 1.0 mi upstream from mouth.	6.52	1960-63 <sup>b</sup> , 1964-81≠, 1983-85, 1987, 1989, 1991, 2002	9-11-02	.12	.81

		Location	Drainage area (mi <sup>2</sup> )		<b>Measurements</b>		
Station Number	Station Name			Period of Record	Date	Unit Area Discharge ((ft <sup>3</sup> /s)/mi <sup>2</sup> )	Discharge (ft <sup>3</sup> /s)
		JUNIATA RIVER B	ASINConti	nued			
01566900	Buffalo Creek near Newport	Lat 40°29'37", long 77°08'20", Perry County, Hydrologic Unit 02050304, at bridge on SR 1024, 0.4 mi upstream from mouth, and 1.2 mi north of New- port.	69.5	1948, 1970-79, 1983-85, 1987, 1989, 1991, 2002	9-11-02	<.01	.24
		STONY CREI	EK BASIN				
01568750	Stony Creek at Water Tank Trail near Dau- phin	Lat 40°24'51", long 76°46'50", Dauphin County, Hydrologic Unit 02050305, at the intersection of Township Route 535 and Water Tank Trail, 3.8 mi down- stream from Rattling Run, and 9.0 mi northeast of Dauphin.	21.9	1974-76≠, 1985-86≠, 1988*,1989, 1991, 2002	9-11-02	.15	3.3
		CONODOGUINET	CREEK BA	SIN			
01569300	Conodoguinet Creek at Orr- stown	Lat 40°03'40", long 77°37'00", Franklin County, Hydrologic Unit 02050305, at bridge on State Highway 433, and 0.3 mi northwest of Orrstown.	53.4	1943-57, 1983-85, 1987, 1989, 1991, 2002	9-10-02	.07	3.8
		YELLOW BREECHE	S CREEK B	ASIN			
01571185	Mountain Creek at Pine Grove Furnace	Lat 40°01'51", long 77°18'18", Cumber- land County, Hydrologic Unit 02050305, at bridge on Township Route 336, 0.2 mi south of Pine Grove Furnace, and 0.5 mi upstream from Toms Run.	13.9	1970-80, 1983-85, 1987, 1989, 1991, 2002	9-09-02	.09	1.3
01571190	Mountain Creek near Mount Holly Springs	Lat 40°05'36", long 77°11'14", Cumber- land County, Hydrologic Unit 02050305, 0.6 mi upstream from reservoir dam, and 2.0 mi south of Mount Holly Springs.	37.4	1970-79, 1982-85, 1987, 1989, 1991, 2002	9-09-02	.02	.73
01571200	Yellow Breeches Creek at Craig- heads	Lat 40°08'47", long 77°10'15", Cumber- land County, Hydrologic Unit 02050305, at single-lane steel highway bridge on Township Route 520 at Craigheads.	110	1959-62, 1982-85, 1987, 1989, 1990-91, 2002	9-09-02	.27	30
)1571300	Dogwood Run near Dillsburg	Lat 40°08'51", long 77°01'44", York County, Hydrologic Unit 02050305, at Williams Grove, just downstream from millrace, 100 ft upstream from mouth, and 2.5 mi north of Dillsburg.	8.78	1957-69, 1983-85, 1989-90 2002	9-09-02	.37	3.2
		SWATARA CRE	EK BASIN				
)1571824	Swatara Creek at Spittler Road Bridge at Ravine	Lat 40°34'30", long 76°24'10", Schuylkill County, Hydrologic Unit 02050305, at single-span concrete bridge on Spittler Road, Township Route 410, 0.1 mi east of State Highway 125 in Ravine.	44.6	2002	9-09-02	.33	15
01572000	Lower Little Swa- tara Creek at Pine Grove	Lat 40°32'15", long 76°22'40", Schuylkill County, Hydrologic Unit 02050305, at bridge on State Highway 501, 0.5 mi upstream from mouth, and 0.8 mi south- east of Pine Grove.	34.3	1920-32≠, 1981-84≠, 1985, 1987, 1989, 1991, 2002	9-09-02	.01	.34

# Discharge measurements made at low-flow partial-record sites during water year 2002-Continued

					<b>Measurements</b>		
Station Number	Station Name	Location	Drainage area (mi <sup>2</sup> )	Period of Record	Date	Unit Area Discharge ((ft <sup>3</sup> /s)/mi <sup>2</sup> )	Discharge (ft <sup>3</sup> /s)
		SWATARA CREEK F	BASINCont	tinued			
01573086	Beck Creek near Cleona	Lat 40°19'24", long 76°29'00", Lebanon County, Hydrologic Unit 02050305, at bridge on Township Route 421 (Bricker Lane), 0.4 mi upstream from mouth, and 1.0 mi south of Cleona.	7.87	1963-81≠, 1983-85, 1987, 1989, 1991, 2002	9-09-02	.06	.47
		CODORUS CR	EEK BASIN				
01574800	East Branch Codorus Creek tributary near Winterstown	Lat 39°48'57", long 76°37'59", York County, Hydrologic Unit 02050306, on right bank 20 ft downstream from Town- ship Route 850, 1.5 mi upstream from mouth, and 1.7 mi southwest of Winter- stown.	5.17	1960-68, 1969-75≠, 1983-85, 1987, 1989, 1991, 2002	9-11-02	.20	1.0
		CONESTOGA R	IVER BASI	N			
01576200	Little Muddy Creek near Reamstown	Lat 40°11'05", long 76°04'40", Lancaster County, Hydrologic Unit 02050306, at bridge on Fivepointville Road, 0.2 mi east of Red Run, 0.8 mi upstream from mouth, and 3.0 mi southeast of Ream- stown.	15.7	1959-69, 1983, 1985, 1987, 1989, 1991, 2002	9-09-02	.07	1.0
01576340	Cocalico Creek near Akron	Lat 40°09'53", long 76°13'56", Lancaster County, Hydrologic Unit 02050306, 200 ft upstream from Middle Creek, and 2.0 mi west of Akron.	66.3	1964, 1983, 1985, 1987, 1989, 1991, 2002	9-09-02	.16	10
01576750	Little Conestoga Creek at Rock- hill	Lat 39°57'27", long 76°22'18", Lancaster County, Hydrologic Unit 02050306, 0.2 mi downstream from bridge on Township Route 561, 0.4 mi upstream of mouth, 0.5 mi southwest of Rockhill, and 3.0 mi south of Millersville.	65.5	1948, 1983-84, 1985, 1987, 1989, 1991, 2002	9-10-02	.15	9.9
		PEQUEA CRE	EK BASIN				
01576766	Pequea Creek at Paradise	Lat 40°00'39", long 76°08'07", Lancaster County, Hydrologic Unit 02050306, at west end of Paradise, and 500 ft upstream from U.S. Highway 30.	66.8	1964-65, 1983, 1985, 1987, 1989, 1991, 2002	9-10-02	.20	13
		MUDDY CRE	EK BASIN				
01577500	Muddy Creek at Castle Fin	Lat 39°46'21", long 76°18'58", York County, Hydrologic Unit 02050306, at bridge on SR 2024 (Paper Mill Road), 0.8 mi northeast of Castle Fin, 1.0 mi east of the intersection of SR 2024 and State Highway 74, and 3.4 mi upstream from mouth.	133	1929-38≠, 1968-71≠, 1983-85, 1987, 1989, 1991*, 2002	9-11-02	.12	16
		OCTORARO CE	REEK BASIN	1			
01578360	East Branch Octoraro Creek near Mount Vernon	Lat 39°49'50", long 76°01'05", Lancaster County, Hydrologic Unit 02050306, at county bridge on Township Route 341, 0.2 mi downstream from Muddy Run, 1.0 mi upstream from Octoraro Lake, and 1.5 mi north of Mt. Vernon.	75.6	1970-78, 1983-85, 1987, 1989, 1991, 2002	9-10-02	.08	6.5

# Discharge measurements made at low-flow partial-record sites during water year 2002-Continued

					<b>Measurements</b>		
Station Number	Station Name	Location	Drainage area (mi <sup>2</sup> )	Period of Record	Date	Unit Area Discharge ((ft <sup>3</sup> /s)/mi <sup>2</sup> )	Discharge (ft <sup>3</sup> /s)
		OCTORARO CREEK	BASINCo	ntinued			
1578400	Bowery Run near Quarryville	Lat 39°53'41", long 76°06'50", Lancaster County, Hydrologic Unit 02050306, at bridge on Township Route 389, 1.1 mi upstream from mouth, and 2.5 mi east of Quarryville.	5.98	1963-81≠, 1983-85, 1987, 1989, 1991, 2002	9-10-02	.24	1.4
1578440	West Branch Octoraro Creek at White Rock	Lat 39°49'29", long 76°05'25", Lancaster County, Hydrologic Unit 02050306, at county bridge on Township Route 337 at White Rock, 1.0 mi upstream from Octoraro Lake, and 1.2 mi downstream from Kings Run.	39.6	1970-78, 1983-85, 1987, 1989, 1991, 2002	9-10-02	.10	4.0
		POTOMAC RI	VER BASIN	I			
		SIDELING HILL O	CREEK BAS	SIN			
*01600700	Little Wills Creek at Bard	Lat 39°55'35", long 78°39'40", Bedford County, Hydrologic Unit 02070002, at double-span concrete bridge on State Highway 96 at Bard, 2.5 mi upstream from Wolf Camp Run, 9.5 mi upstream from mouth, and 11 mi southwest of Bedford	10.2	1961-81 <b>b</b> , 1970-91 <b>c</b> *, 1992-2002*	9-10-02	<.01	.01
01601000	Wills Creek below Hynd- man	Lat 39°48'43", long 78°43'00", Bedford County, Hydrologic Unit 02070002, on left bank 150 ft upstream from county highway bridge piers (bridge disman- tled), 150 ft downstream from Pennsyl- vania Railroad bridge (currently used as a highway bridge), and 5.0 mi south of Hyndman.	146	1952-67≠, 1983, 1985, 1987, 1989, 2002≠	9-10-02	.01	1.2
		TONOLOWAY C	REEK BASI	N			
01613080	Little Tonoloway Creek at War- fordsburg	Lat 39°45'30", long 78°11'19", Fulton County, Hydrologic Unit 02070004, at bridge on U.S. Highway 522, 0.2 mi upstream from Cove Run, and 0.5 mi north of Warfordsburg.	44.8	1970-79, 1983, 1985, 1987, 1989, 1991, 2002	9-11-02	0	.09
		LICKING CRE	EK BASIN				
*01613500	Licking Creek near Sylvan	Lat 39°43'23", long 78°03'38", Franklin County, Hydrologic Unit 02070004, at bridge on State Highway 456, 200 ft upstream from PA-MD state line, and 3.0 mi southwest of Sylvan.	158	1930-41≠, 1983, 1985, 1987, 1989, 1991, 2002	9-11-02	.03	5.0
		CONOCOCHEAGUI	E CREEK B	ASIN			
01614090	Conococheague Creek near Fay- etteville	Lat 39°55'48", long 77°26'23", Adams County, Hydrologic Unit 02070004, on right bank 20 ft downstream from bridge on State Highway 233, 1.3 mi upstream from dam on Chambersburg Reservoir, and 4.0 mi northeast of Fayetteville.	5.05	1960-81≠, 1983-85, 1987, 1989, 1991, 1998-2002*	9-10-02	.06	.28
)1614100	Birch Run near Fayetteville	Lat 39°55'46", long 77°26'28", Adams County, Hydrologic Unit 02070004, at bridge on State Highway 233, 0.3 mi upstream from mouth, 2.7 mi northeast of intersection with U.S. Highway 30, and 6.0 mi east of of Fayetteville.	8.13	1959-69, 1983-85, 1987, 2002	9-10-02	.67	5.5

# Discharge measurements made at low-flow partial-record sites during water year 2002—Continued

## DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

						Measurement	<u>s</u>
Station Number	Station Name	Location	Drainage area (mi <sup>2</sup> )	Period of Record	Date	Unit Area Discharge ((ft <sup>3</sup> /s)/mi <sup>2</sup> )	Discharge (ft <sup>3</sup> /s)
		CONOCOCHEAGUE CRE	EEK BASIN-	-Continued			
01614140	Back Creek near Chambersburg	Lat 39°53'36", long 77°44'30", Franklin County, Hydrologic Unit 02070004, at bridge on SR 3012, 1.2 mi west of Tur- keyfoot, and 5.0 mi southwest of Cham- bersburg.	63.0	1968-76, 1977-78≠, 1983, 1985, 1987, 1989, 1991, 2002	9-10-02	.04	2.5
		MONOCACY R	IVER BASI	N			
01638800	Marsh Creek near Gettysburg	Lat 39°49'05", long 77°17'05", Adams County, Hydrologic Unit 02070009, at bridge on State Highway 116, and 2.2 mi west of Gettysburg.	49.6	1943-57, 1983-85, 1987, 1989, 1991, 2002	9-10-02	.02	.97

#### Discharge measurements made at low-flow partial-record sites during water year 2002-Continued

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Operated as a continuous-record gaging station. Also a miscellaneous station. Previously published as Buffalo Run tributary near Manns Choice, Pa. Operated as a crest-stage partial-record station. Most years during period. a b c