01474000 WISSAHICKON CREEK AT MOUTH, PHILADELPHIA, PA

Lower Delaware Basin
Schuylkill Subbasin

LOCATION.--Lat 40°00′55″, long 75°12′26″ referenced to North American Datum of 1927, Philadelphia County, PA, Hydrologic Unit 02040203, on left bank 100 ft upstream from dam at Ridge Avenue, 750 ft upstream from mouth, and 1,000 ft northwest of Gustine Lake in Philadelphia.

DRAINAGE AREA.--64.0 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--June 1897 to September 1903, January 1905 to July 1906, October 1965 to current year. Prior to October 1965, records furnished by Department of Public Works, City of Philadelphia, and published as "near Philadelphia". Records for 1971-74 published in WDR PA-81-1.

REVISED RECORDS.--WSP 1302: 1905: WDR PA-89-1: 1988.

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 26.41 ft above National Geodetic Vertical Datum of 1929. Prior to October 1965, water-stage recorder at about same site and datum. Satellite telemetry at station.

COOPERATION.--Station established and maintained by the U.S. Geological Survey in cooperation with the City of Philadelphia, Water Department.

REMARKS.--Records good except those less than 100 ft³/s, which are fair, and those for estimated daily discharges, which are poor. Several measurements of water temperature were made during the year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,900 ft³/s and (or) maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)
Oct 1	1115	6,030	7.47
Mar 7	0430	3,560	5.96
Apr 17	0330	5,040	6.91
Aug 28	0700	15,700	10.56
Sep 7	1200	3,950	6.23
Sep 8	1000	*17,100	*10.90

Minimum discharge, 29 ft³/s, Aug. 13, gage height, 2.05 ft.

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 01474000, accessed at http://wdr.water.usgs.gov/wy2011/pdfs/01474000.2011.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	2,800	45	810	50	54	130	139	91	59	43	42	155
2	139	39	194	56	172	100	104	91	57	43	41	131
3	68	37	79	63	183	89	84	88	54	43	40	116
4	63	215	64	51	95	84	82	161	54	43	132	104
5	133	187	57	50	93	81	110	115	53	43	47	100
6	110	63	53	50	160	495	96	86	53	42	41	986
7	60	51	51	50	153	1,580	82	81	52	49	58	2,370
8	53	50	52	47	211	225	134	77	51	67	54	6,430
9	49	53	56	48	141	163	253	76	52	65	160	631
10	48	56	55	48	97	727	98	73	54	47	83	409
11	47	55	55	47	81	1,410	89	70	52	43	45	275
12	61	54	229	49	76	298	171	69	170	41	41	442
13	55	53	295	47	73	215	451	63	61	40	39	197
14	80	49	81	46	98	173	162	63	58	39	1,120	161
15	145	51	63	48	221	153	113	154	77	38	e215	152
16	57	53	58	48	107	360	646	246	54	36	e85	118
17	51	88	55	47	137	182	1,760	144	248	34	65	99
18	49	53	54	119	238	145	266	170	59	33	100	91
19	87	50	53	144	187	128	207	491	52	37	514	85
20	63	49	53	130	100	114	174	421	51	42	688	83
21	53	49	51	88	88	206	147	209	50	33	912	80
22	52	49	50	67	94	155	124	110	49	31	396	78
23	51	50	50	57	88	156	211	136	78	31	112	424
24	49	49	49	55	83	246	168	99	52	30	86	668
25	e49	55	49	55	517	135	227	84	49	57	316	142
26	50	72	49	58	204	110	142	79	47	310	156	104
27	67	55	50	67	118	98	120	74	46	51	617	90
28	61	50	47	60	155	93	166	69	47	41	7,130	454
29	50	49	47	56	---	89	136	62	46	40	417	180
30	46	50	48	56	---	85	103	59	43	158	244	150
31	45	---	48	55	---	88	---	56	---	47	186	---
Total	4,791	1,879	3,005	1,912	4,024	8,313	6,765	3,867	1,928	1,697	14,182	15,505
Mean	155	62.6	96.9	61.7	144	268	226	125	64.3	54.7	457	517
Max	2,800	215	810	144	517	1,580	1,760	491	248	310	7,130	6,430
Min	45	37	47	46	54	81	82	56	43	30	39	78
Cfsm	2.41	0.98	1.51	0.96	2.25	4.19	3.52	1.95	1.00	0.86	7.15	8.08
In.	2.78	1.09	1.75	1.11	2.34	4.83	3.93	2.25	1.12	0.99	8.24	9.01

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 2011, BY WATER YEAR (WY)

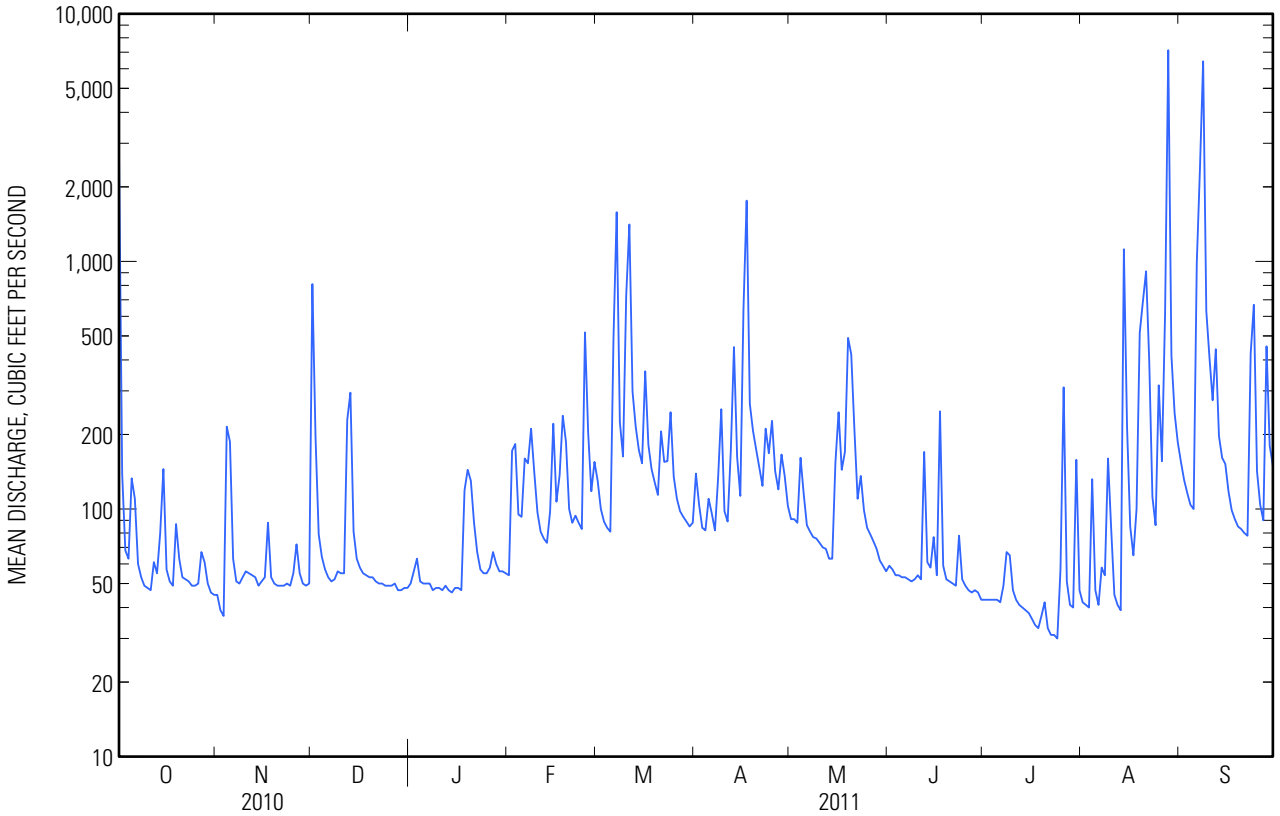
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	78.9	91.5	124	120	125	159	146	112	98.6	83.2	87.9	97.9
Max	216	265	398	378	266	420	410	229	306	230	457	517
(WY)	(1997)	(1973)	(1997)	(1979)	(1979)	(2010)	(1983)	(1984)	(2001)	(1975)	(2011)	(2011)
Min	23.1	17.7	22.7	24.3	37.0	40.7	41.3	50.8	32.0	23.7	19.8	23.0
(WY)	(1966)	(1966)	(1966)	(1981)	(1969)	(1985)	(1985)	(1986)	(1986)	(1999)	(1966)	(1968)

01474000 WISSAHICKON CREEK AT MOUTH, PHILADELPHIA, PA—Continued

SUMMARY STATISTICS

	Calendar Year 2010		Water Year 2011		Water Years 1966 - 2011	
Annual total	46,514		67,868			
Annual mean	127		186		110	
Highest annual mean					186	2011
Lowest annual mean					50.6	1966
Highest daily mean	2,800	Oct 1	7,130	Aug 28	7,130	Aug 28, 2011
Lowest daily mean	19	Sep 9	30	Jul 24	8.8	Aug 30, 1995
Annual seven-day minimum	25	Sep 5	34	Jul 18	12	Aug 27, 1966
Maximum peak flow			[a]17,100	Sep 8	[a]19,800	Sep 16, 1999
Maximum peak stage			10.90	Sep 8	[b]11.50	Sep 16, 1999
Instantaneous low flow			29	Aug 13	2.0	Jul 18, 1905[c]
Annual runoff (cfsm)	1.99		2.91		1.72	
Annual runoff (inches)	27.04		39.45		23.42	
10 percent exceeds	213		258		189	
50 percent exceeds	61		76		62	
90 percent exceeds	37		46		29	

[a] From rating curve extended above 4,000 ft³/s on basis of slope-area measurement at gage height 11.50 ft.
[b] From floodmark. Maximum recorded 10.77 ft.
[c] Also July 19, 1905.



01474000 WISSAHICKON CREEK AT MOUTH, PHILADELPHIA, PA—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 2002 to current year.

REMARKS.--Analyses for pH, water temperature, specific conductance, and dissolved oxygen were performed on site. All other sample analyses were performed at the Pennsylvania Department of Environmental Protection laboratory in Harrisburg, Pa. Some values for filtered parameters exceeded values for the corresponding unfiltered parameter. These results are within the limits of analytical precision and methods.

COOPERATION.--Water-quality samples were collected as part of the Pennsylvania Department of Environmental Protection Water-Quality Network (WQN) with cooperation from the Pennsylvania Department of Environmental Protection.

WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Part 1 of 4

[ANC, acid neutralizing capacity; $CaCO_3$, calcium carbonate; N, nitrogen; P, phosphorus; ft³/s, cubic feet per second; mg/L, milligrams per liter; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; <, less than; M, presence verified but not quantified]

Date	Sample start time	Discharge, instantaneous, ft³/s (00061)	Dissolved oxygen, water, unfiltered, mg/L (00300)	pH, water, unfiltered, field, standard units (00400)	pH, water, unfiltered, laboratory, standard units (00403)	Specific conductance, water, unfiltered, laboratory, µS/cm at 25 °C (90095)	Specific conductance, water, unfiltered, µS/cm at 25 °C (00095)	Temperature, water, °C (00010)	Dissolved solids dried at 180 °C, water, filtered, mg/L (70300)	Hardness, water, mg/L as $CaCO_3$ (00900)
11-04-2010	**1100**	117	11.2	7.5	8.0	632	667	9.3	384	180
01-31-2011	**1045**	54	15.3	8.2	8.2	1,830	1,900	.4	990	240
03-30-2011	**1030**	86	14.0	8.8	8.5	759	730	7.1	424	200
05-31-2011	**1305**	56	10.2	8.3	8.3	758	717	23.9	430	210
07-27-2011	**1145**	51	8.3	7.6	7.7	355	335	24.6	200	87
09-29-2011	**1100**	186	9.0	7.6	8.0	418	416	20.3	242	120

WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Part 2 of 4

[ANC, acid neutralizing capacity; $CaCO_3$, calcium carbonate; N, nitrogen; P, phosphorus; ft³/s, cubic feet per second; mg/L, milligrams per liter; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; <, less than; M, presence verified but not quantified]

Date	Sample start time	Suspended solids, water, unfiltered, mg/L (00530)	Calcium, water, unfiltered, recoverable, mg/L (00916)	Magnesium, water, unfiltered, recoverable, mg/L (00927)	ANC, water, unfiltered, fixed endpoint (pH 4.5) titration, laboratory, mg/L as $CaCO_3$ (00417)	Chloride, water, filtered, mg/L (00940)	Sulfate, water, filtered, mg/L (00945)	Ammonia, water, unfiltered, mg/L as N (00610)	Nitrate, water, unfiltered, mg/L as N (00620)	Nitrite, water, unfiltered, mg/L as N (00615)
11-04-2010	**1100**	6	41.0	19.0	111	93.2	52.5	.030	4.50	< .040
01-31-2011	**1045**	< 5	57.6	23.5	122	479	46.7	< .020	5.60	< .200
03-30-2011	**1030**	< 5	45.5	20.5	119	134	42.8	< .020	3.37	< .040
05-31-2011	**1305**	< 5	47.6	21.5	125	108	44.5	.040	4.24	< .040
07-27-2011	**1145**	< 5	20.1	8.9	57	48.6	21.6	.100	1.73	< .040
09-29-2011	**1100**	8	29.6	12.4	84	54.6	22.5	.080	2.07	< .040

01474000 WISSAHICKON CREEK AT MOUTH, PHILADELPHIA, PA—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Part 3 of 4

[ANC, acid neutralizing capacity; $CaCO_3$, calcium carbonate; N, nitrogen; P, phosphorus; ft^3/s, cubic feet per second; mg/L, milligrams per liter; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; <, less than; M, presence verified but not quantified]

Date	Sample start time	Orthophos-phate, water, unfiltered, mg/L as P (70507)	Phosphorus, water, unfiltered, mg/L as P (00665)	Total nitrogen, water, unfiltered, mg/L (00600)	Aluminum, water, unfiltered, recover-able, µg/L (01105)	Copper, water, unfiltered, recover-able, µg/L (01042)	Iron, water, unfiltered, recover-able, µg/L (01045)	Lead, water, unfiltered, recover-able, µg/L (01051)	Manga-nese, water, unfiltered, recover-able, µg/L (01055)	Nickel, water, unfiltered, recover-able, µg/L (01067)
11-04-2010	**1100**	.17	.227	5.3	< 200	M	190	M	30	< 50
01-31-2011	**1045**	.23	.258	5.7	< 200	M	110	< 1.0	40	< 50
03-30-2011	**1030**	.11	.180	3.6	< 200	M	100	< 1.0	20	< 50
05-31-2011	**1305**	.19	.242	8.2	< 200	M	60	< 1.0	10	< 50
07-27-2011	**1145**	.21	.202	2.1	200	M	290	< 1.0	20	< 50
09-29-2011	**1100**	.12	.156	2.4	300	M	480	M	20	< 50

WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Part 4 of 4

[ANC, acid neutralizing capacity; $CaCO_3$, calcium carbonate; N, nitrogen; P, phosphorus; ft^3/s, cubic feet per second; mg/L, milligrams per liter; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; <, less than; M, presence verified but not quantified]

Date	Sample start time	Zinc, water, unfiltered, recover-able, µg/L (01092)
11-04-2010	**1100**	20
01-31-2011	**1045**	10
03-30-2011	**1030**	< 10
05-31-2011	**1305**	< 10
07-27-2011	**1145**	< 10
09-29-2011	**1100**	10