

01389890 PASSAIC RIVER AT DUNDEE DAM, AT CLIFTON, NJ

PASSAIC RIVER BASIN

LOCATION.--Lat 40°53'08.8", long 74°07'41.9" referenced to North American Datum of 1983, Garfield City, Passaic County, NJ, Hydrologic Unit 02030103, on left bank, 900 ft east of Clifton, 1200 ft upstream of Dundee Dam in Garfield, 0.7 mi downstream from the bridge on US Route 46 in Elmwood Park, and 0.7 mi upstream from the bridge on Outwater Lane in Garfield.

DRAINAGE AREA.--805 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Miscellaneous measurements, water years 1970-71, 1986-87, 1992-1997, 2004 published as 01389895 Passaic River at Outwater Lane, at Garfield, NJ. Continuous-record gaging station, April 2007 to current year. History peaks for water years 1810, 1877-1879, 1881-1882, 1884, 1886, 1888-1891, 1893, 1896, 1902, and 1904 were published in annual reports of the New Jersey State Geologist using stage records collected by the Dundee Water-Power and Land Company and flow-over-dam computations. Peak stages for water years 1936, 1938, and 1945 were published in reports of the USGS.

GAGE.--Water-stage recorder and crest-stage gage above a dam. Datum of gage is 24.52 ft above NGVD of 1929. Stage records were collected by the Dundee Water-Power and Land Company for the period 1877 through at least 1904.

REMARKS.--Records fair. Significant fluctuations at medium and low flow due to operation of hydroelectric plants at Beatties Dam in Little Falls and Passaic (Great) Falls in Paterson. Flow regulated by reservoirs in Rockaway (see 01379990 and 01380900), Pequannock (see 01382100, 01382200, 01382300, 01382380, and 01382400), Wanaque (see 01383000, 01384002, and 01386990), and Ramapo River subbasins. Large diversions for municipal supply from Passaic River above Beatties Dam (see 01389492), and from Rockaway (see 01380800), Pequannock (see 01382370), Pompton (see 01388490), Ramapo (see 01387990), and Wanaque (see 01386980) Rivers. In addition, the New Jersey-American Water Company (formerly Commonwealth Water Company) diverts from Canoe Brook near Summit (see 01379529) and from Passaic River (see 01379510); that company, the city of East Orange, and others also divert water for municipal supply by pumping wells in the basin. Several measurements of water temperature were made during the year. Satellite gage-height telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct 10, 1903 reached a stage of 8.40 ft, discharge, 35,800 ft³/s (computed as flow over dam by the New Jersey State Geologist's office).

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than 5,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr 15	2245	12,100	4.36
Apr 18	0915	*15,100	*4.93
Aug 08	0745	6,110	3.04

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007
DAILY MEAN VALUES

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	---	---	---	---	---	---	e1,810	e3,240	246	279	382	267
2	---	---	---	---	---	---	e1,660	3,100	251	222	312	251
3	---	---	---	---	---	---	e1,550	2,640	298	200	311	230
4	---	---	---	---	---	---	e1,740	2,300	1,400	220	603	204
5	---	---	---	---	---	---	e2,100	2,040	1,050	639	368	199
6	---	---	---	---	---	---	e1,920	1,770	912	636	276	e148
7	---	---	---	---	---	---	e1,830	1,580	727	e629	243	115
8	---	---	---	---	---	---	e1,680	1,370	537	550	2,580	96
9	---	---	---	---	---	---	e1,510	1,210	399	400	1,530	99
10	---	---	---	---	---	---	e1,340	1,100	303	274	2,080	231
11	---	---	---	---	---	---	e1,280	1,110	273	787	1,890	436
12	---	---	---	---	---	---	e1,790	924	259	955	1,810	385
13	---	---	---	---	---	---	e2,180	901	285	663	1,830	306
14	---	---	---	---	---	---	2,050	812	296	567	1,760	211
15	---	---	---	---	---	---	5,810	727	277	452	1,580	165
16	---	---	---	---	---	---	9,870	739	326	310	1,350	135
17	---	---	---	---	---	---	13,000	1,030	342	252	1,130	115
18	---	---	---	---	---	---	14,800	890	330	1,390	989	101
19	---	---	---	---	---	---	13,500	833	214	927	753	96
20	---	---	---	---	---	---	11,400	797	217	728	607	147
21	---	---	---	---	---	---	9,550	783	287	518	1,080	129
22	---	---	---	---	---	---	7,860	697	319	336	1,050	102
23	---	---	---	---	---	---	6,590	591	230	1,300	1,020	98
24	---	---	---	---	---	---	5,140	516	e172	1,330	1,000	104
25	---	---	---	---	---	---	4,000	455	e148	1,120	916	102
26	---	---	---	---	---	---	3,260	425	149	1,010	809	95
27	---	---	---	---	---	---	4,150	345	167	944	670	e85
28	---	---	---	---	---	---	3,600	328	527	979	524	e88
29	---	---	---	---	---	---	3,560	302	409	818	417	105
30	---	---	---	---	---	---	e3,480	280	380	615	342	98
31	---	---	---	---	---	---	---	266	---	473	290	---
Total	---	---	---	---	---	---	144,010	34,101	11,730	20,523	30,502	4,943
Mean	---	---	---	---	---	---	4,800	1,100	391	662	984	165
Max	---	---	---	---	---	---	14,800	3,240	1,400	1,390	2,580	436
Min	---	---	---	---	---	---	1,280	266	148	200	243	85

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2007 - 2007, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	---	---	---	---	---	---	4,800	1,100	391	662	984	165
Max	---	---	---	---	---	---	4,800	1,100	391	662	984	165
(WY)	(---)	(---)	(---)	(---)	(---)	(---)	(2007)	(2007)	(2007)	(2007)	(2007)	(2007)
Min	---	---	---	---	---	---	4,800	1,100	391	662	984	165
(WY)	(---)	(---)	(---)	(---)	(---)	(---)	(2007)	(2007)	(2007)	(2007)	(2007)	(2007)

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SUMMARY STATISTICS

	Apr 1 - Sep 30, 2007	
Highest daily mean	14,800	Apr 18
Lowest daily mean	^a 85	Sep 27
Maximum peak flow	15,100	Apr 18
Maximum peak stage	4.93	Apr 18
Instantaneous low flow	73	Sep 27

^a Estimated.

